

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**AIR AND RADIATION ADMINISTRATION
APPLICATION FOR A PERMIT TO CONSTRUCT**

DOCKET #08-25

COMPANY: Solo Cup Operating Corporation

LOCATION: 1000 Industrial Park Road, Federalsburg, MD 21632

APPLICATION: Installation of three (3) new Comexi water-based printers with natural gas fired dryers and additional cup forming machines along with material handling and packaging equipment. These three (3) new printers will replace the four (4) existing water-based printers that are currently permitted.

<u>ITEM</u>	<u>DESCRIPTION</u>
1	Notice of Application and Opportunity to Request an Informational Meeting
2	Permit to Construct Application Forms: Checklist, Form 5, Form 5T, Three (3) Form 5EP
3	Supporting Documentation: Project description, process flow diagram, printer emission calculations, TAP demonstration of expected ink usage, Screen3 run for ammonium hydroxide, TBACT determination and demonstration, MDEnviroScreen Report, zoning letter, printer information

**DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION**

**NOTICE OF APPLICATION AND
OPPORTUNITY TO REQUEST AN INFORMATIONAL MEETING**

The Maryland Department of the Environment, Air and Radiation Administration (ARA) received a permit-to-construct application from Solo Cup Operating Corporation on September 26, 2025 for the installation of three (3) new water-based printers and additional cup forming machines along with material handling and packaging equipment. These three (3) new water-based Comexi printers will replace the four (4) existing water-based printers that are currently permitted. The additional cup forming machines will replace existing paper plate formers, which will be moved out. The proposed installation will be located at 1000 Industrial Park Road in Federalsburg, Maryland 21632 in Caroline County.

In accordance with HB 1200/Ch. 588 of 2022, the applicant provided an environmental justice (EJ) Score for the census tract in which the project is located. The EJ Score, expressed as a statewide percentile, was shown to be 68.8 which the Department has verified. This score represents a combined measure of pollution and the potential vulnerability of a population to the effects of pollution.

Copies of the application, the MDE EJ Screening Tool Report (which includes the score), and other supporting documents are available for public inspection on the Department's website at <https://mde.maryland.gov/programs/Permits/AirManagementPermits/Pages/index.aspx> (click on Docket Number 08-25).

Any applicant-provided information regarding a description of the environmental and socioeconomic indicators contributing to that EJ score can also be found at the listed website. Such information has not yet been reviewed by the Department. A review of the submitted information will be conducted when the Department undertakes its technical review of all documents included in the application.

Pursuant to the Environment Article, Section 1-603, Annotated Code of Maryland, the Department will hold an informational meeting to discuss the application and the permit review process if the Department receives a written request for a meeting within 10 working days from the date of the second publication of this notice. A requested informational meeting will be held virtually using teleconference or internet-based conferencing technology unless a specific request for an in-person informational meeting is received. All requests for an informational meeting should be directed to the attention of Ms. Shannon Heafey, Air Quality Permits Program by email to shannon.heafey@maryland.gov or by mail to the Air and Radiation Administration, 1800 Washington Boulevard, Baltimore, Maryland 21230.

Further information may be obtained by calling Ms. Shannon Heafey at 410-537-4433.

Christopher R. Hoagland, Director
Air and Radiation Administration



P.O. Box 129 • Federalsburg, MD 21632 • (410) 479-4800

September 25, 2025

Maryland Department of the Environment
Compliance Program Administrator
Air and Radiation Administration
1800 Washington Boulevard, Suite 715
Baltimore, Maryland 21230-1720

Re: Permit to Construct Application
Solo Cup Company, Federalsburg Facility
Facility Number: 011-0044

With this application, Solo Cup Operating Company, which operates under permit #011-0044, is applying for permission to install and operate three (3) new water-based printers and add additional cup forming machines along with material handling and packaging equipment. This additional investment in our Federalsburg facility will help ensure long-lasting stable manufacturing in the state of Maryland, continuing the many years of commitment Solo has made in the community at large. Our goal is to continue to invest not only in our facility but in the employees we support and the careers that they are building with us.

These three (3) new water-based Comexi printers will replace the four (4) existing water-based printers that are currently permitted. The additional cup forming machines will also be replacing existing paper plate formers that will be moving out, therefore this is not a request for an increase in site-wide emissions.

Included in this application you will find emission calculations showing both the PTE and expected VOC and HAPs emissions as well as the toxic ambient impact demonstration.

The company expects to begin decommissioning of the printers in November of this year. The first new printer is expected to arrive in January of 2026 with plans to begin printing operations in March of 2026. Another printer and additional cup forming machines will arrive in second quarter of 2026 with the third printer arriving in late 2026.

Given the importance of this project to our company and community, and the compressed timelines we are needing to achieve, we want to do whatever possible to partner with you. We look forward to working through this process with you and will be reaching out during the first week of October to ensure we have supplied all the information needed to process the application and discuss permit and project timing.

Please reach out to either myself or Frank Cole, our EHS Manager, at (410) 479-4800 if you need additional information or have any questions.

Sincerely yours,

A handwritten signature in black ink, appearing to read "J. Millward", written over a horizontal line.

Jeff Millward
Plant Manager
Solo Cup Company
Federalsburg, Maryland
(410) 422-6700

SOLO CUP OPERATING COMPANY



**Application for Permit to Construct
for
3 New Water Based Comexi Printers
(Replacement for 2 Comexi' s, Wolverine, & Koschick)**

**Solo Cup Operating Company
10000 Industrial Park Road
Federsburg, MD 21632**

(410) 479-4800

September 25, 2025

Table of Contents

Project Description	1
Process Details and Timing	2
Emissions Information	5
PTE and Expected VOC and HAP from Ink Mixing & Usage in Replacement Printers	5
Combustion Emissions	6
Paper Machines and Scrap Handling PM Emissions	6
Toxic Ambient Impact Demonstration	7
Emissions Permit Request	9
Regulatory Review	10
Federal NSPS (40 CFR 60)	10
Subpart QQ—Standards of Performance for Graphic Arts Industry: Publication Rotogravure Printing	10
Federal NESHAP/MACT (40 CFR 63)	10
Subpart H—National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks	10
Subpart KK—NATIONAL EMISSION STANDARDS FOR THE PRINTING AND PUBLISHING INDUSTRY	10
Subpart JJJJ—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: PAPER AND OTHER WEB COATING	10
Subpart PPPP—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SURFACE COATING OF PLASTIC PARTS AND PRODUCTS	10
Subpart HHHHH—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: MISCELLANEOUS COATING MANUFACTURING	10
Federal PSD (40 CFR 52)	10
Federal Non-attainment NSR (40 CFR 51 & 52)	10
CAM (40 CFR 64)	10
COMAR 26.11.01 – General Administrative Provisions	11
Testing 26.11.01.04	11
Recordkeeping 26.11.01.05	11
Malfunctions and Other Temporary Increases of Emissions 26.11.01.07	11
COMS/CEMS Requirements 26.11.01.10/.11	11
COMAR 26.11.02 - Permits	11
COMAR 26.11.03 – Title V Permits	11
COMAR 26.11.04 – Ambient Standards	11
COMAR 26.11.05 – Air Pollution Episode System	11
COMAR 26.11.06 – General Emission Standards, Prohibitions, and Restrictions	11
Visible Emissions 26.11.06.02(C) (1)	11
Particulate Matter 26.11.06.03(C) & (B) -	11
Carbon Monoxide in Areas III and IV 26.11.06.04	12
Sulfur Compounds from other than Fuel– Burning Equipment 26.11.06.05(B)	12
Volatile Organic Compounds 26.11.06.06	12

Nuisance 26.11.06.08	12
Odor 26.11.06.09	12
Control of NSPS Sources 26.11.06.12	12
Control of PSD Sources 26.11.06.14	12
COMAR 26.11.07 – Open Fires	12
COMAR 26.11.09 – Control of Fuel Burning Equipment, stationary Internal Combustion Engines, and Certain Fuel-Burning Installations	12
Prohibition of Certain New Fuel Burning Equipment 26.11.09.04	12
Visible Emissions 26.11.09.05	12
Control of PM 26.11.09.06	12
Control of Sulfur Oxides from Fuel Burning Equipment 26.11.09.07(A)(1)(d)	12
COMAR 26.11.13- Control of Gasoline and VOC Storage and Handling	13
Large Storage Tanks 26.11.13.03	13
COMAR 26.11.15/16- TAP/Procedures related to Requirements for TAP	13
Control of NESHAP and MACT Sources 26.11.15.02	13
Requirements to Quantify Emissions 26.11.15.04	13
Control Technology Requirements 26.11.15.05	13
Ambient Impact Requirement 26.11.15.06	13
COMAR 26.11.17- Nonattainment Provisions for Major New Sources and Major Modifications	13
COMAR 26.11.19- VOC from Specific Processes	14
Paper, Fabric, Film, and Foil Coating 26.11.19.07	14
Flexographic and Rotogravure Printing 26.11.19.10	14
Flexible Packaging Printing 26.11.19.10-1	14
Control of VOC Equipment Leaks 26.11.19.16	14
Applicability, Determining Compliance, Reporting, and General Requirements 26.11.19.02	14
COMAR 26.11.21/23- Control of Asbestos/Asbestos Accreditation	14
COMAR 26.11.26- Conformity	14
COMAR 26.11.28- Cross-State Air Pollution Rule	15
Additional State Regulations that do not Apply	15
Appendix A- Application Forms	16
Appendix B – Process Flow Diagram	17
Appendix C –Printer Emission Calculations	20
New Printer VOC PTE Emission Calcs – Project/Premises Total	21
New F1 PRINTERS (2) COMBUSTION EMISSIONS /PTE	22
New F2 PRINTER COMBUSTION EMISSIONS /PTE	23
ALL THREE NEW PRINTER COMBUSTION EMISSIONS/PTE (Premise Wide)	24
Appendix D - TAP Demonstration at Expected Ink Usage	25
Site Wide TAP Compliance Screening – Test 1 – Simple Screen	26
Maximum Hourly Toxic Emissions at Maximum hourly Ink and Coating Usage	26
Summary of Toxic hourly and annual Emissions	28
Maryland ESL Screening Levels for Toxics in Ink and Coating	28
COMAR 26.11.16.02 Test 1 – Allowable Emissions Versus PTE Emissions	29

<i>Appendix E – Screen3 Run for Ammonium Hydroxide</i>	30
SCREEN3 OUTPUTS FOR THOSE CHEMICALS THAT DID NOT PASS SIMPLE CHART SCREENING ANALYSIS	31
<i>Appendix F - TBACT Determination and Demonstration</i>	37
T-BACT Discussion and Calculations	38
ACA Spreadsheet Input and Output	39
<i>Appendix G - SDS/TDS of inks and coatings</i>	41

Project Description

Dart/Solo has made a decision to grow the paper cup manufacturing ability at our Federalsburg facility which operates under Maryland's State Permit to Operate #011-0044.

This change will involve the movement of paper plate making equipment out of the facility and the addition of additional paper cup making equipment. There will be 75 total paper manufacturing machines with associated, Blankers, packaging and scarp handling equipment. No significant change in the pounds of paper being processed at the Federalsburg location is expected so no change in PM emission is expected..

We will continue to use water-based ink for printing the paper stock. The same water-based press side additives will be used.

In order to more efficiently print the paper cup stock, the following existing pieces of equipment (Comexi F1 (ARA #: 011-0044-6-0046), Wolverine (ARA #:011-0044-6-0012), Comexi F4 (022-0044-6-054) and Koschick (ARA #: 011-0044-6-0025) are being replaced with three (3) new water-based printers, 2 -Comexi FI and 1- Comexi F2 that will have a coating station.

The new printers will allow for additional color options, improved labor and handling efficiencies, and higher quality print.

Since these new printers will replace the current ones, the site is not asking to increase annual VOC or HAP emissions limits and will continue to keep VOC emissions below 50 TPY and HAP emissions below the 10/25 TPY limits in the current permit.

Currently cup production does not require the use of coating but since the site is already permitted for it we would like to leave it in the permit as an available option if needed in the future since the new printer Comexi F2 (EP ID Comexi 16) has a coating station on it.

As part of this replacement project, this application contains a verification that the Solo facility will not exceed any of the current Maryland toxic limits under either permitted operating scenario.

To perform the toxic screening verification, Dart/Solo used the sum of highest ink usage from each of the 3 new replacement printers.. This analysis was done using the most current ink and coating formulations and ingredient information from suppliers along; with the most current color combinations ratios to determine the maximum predicted TAP emissions for all components listed in COMAR 26.11.06 &.07 as required by COMAR 26.11.15.04. These worst-case emissions were then analyzed according to COMAR 26.11.16.06 and Maryland's DOE TAP Guidance to determine and show that all impacts were below the threshold and show that the offsite impacts will be below the limits except for Ammonium Hydroxide. Since the existing printers are all being removed this will be the maximum premise emission rate as well. Toxic analysis was not performed for the solid components within the ink since they cannot become airborne emissions.

One substance, Ammonium Hydroxide, did not pass this initial screening analysis so Solo used Screen3 modeling to demonstrate the impact of Ammonium Hydroxide was acceptable and in compliance with Maryland regulations. The initial Screen3 modeling runs that were performed showed that the offsite concentrations would be above the allowed concentrations. However, the majority of the ammonia emissions comes from the use of the pH Adjuster, a press side aide, and the usage of can be controlled. Furthermore, the PTE is much higher than actual usage since its use varies depending on the adhesion characteristics. Therefore, Dart is willing to take an ammonium hydroxide emission limit of 6.65 #/hr which was found to produce acceptable offsite concentrations through Screen 3.

The review of EPA's database and state rules and permits indicates that the use of Water-based ink is consistent with TBACT requirements. Cost data shown in Appendix F supports this determination.

Since the requested HAP and VOC emissions are not different from the current permit and Dart is willing to reduce ammonium hydroxide emissions to assure compliance with offsite impact limits, it is thought that this permit can be issued in a timely manner to allow this project to move forward on the schedule planned which has the first printer arriving in January.

Process Details and Timing

Dart has decided to make the Federalsburg Solo Cup Operating Company our primary paper cup production facility.

Therefore, the paper plate production process will be removed, just as the plastic thermoforming process was, and the open area will be used to install new paper cup production equipment including 3 new printers, additional paper cup machines along with additional raw and finished production handling equipment.

From a permit perspective the major impact is the replacement of the current four existing printers: Comexi (ARA #: 011-0044-6-0046), Comexi (ARA #: 011-044-6-054), Wolverine (ARA #:011-0044-6-0012), and Koschick (ARA #: 011-0044-6-0025) with three (3) water-based printers from our Chicago, IL and Dallas, TX facilities. Since these new printers will have the ability to print additional colors, the change out will allow for more complex graphics to be produced as required to keep and grow customers, as well as for better print quality and increased labor efficiency.

Solo is installing two (2) new Comexi F1 printers and a Comexi F2. The details about each of these printers can be found on the EP5 Emission Data Point forms that are included in this application.

The first removal of the existing Comexi F2 is scheduled to occur starting in November of this year, while the first new printer is expected to arrive onsite in January with an April startup planned. Additional printer removals and additions will continue over the next 2 years as the third and final press is scheduled to be started up in the 3rd quarter of 2027.

The replacement printers will use the same flexographic printing method and use water-based ink just as the current printers do but will have faster speeds, additional print stations to allow for better and more efficient roll stock printing. At the flexographic wide web printers, the precoated paper roll stock will be unwound and feed into the printer where color graphics will be applied using water-based ink at the print station. The printed paper stock will then be cut to the desired width and rerolled. The printed paper stock will be sent to the Blankers where the cup forms, or blanks, are punched out. These blanks, either printed or without graphics, are fed into the cup making machines along with a bottom

blank and then rolled into the shape of a cup. The edges of the precoated paper we purchase are heated to seal together, and the cup is then onto the packaging machines and equipment. Scrap, from the blanker trim or bad printed stock, is conveyed to a bailer where it is sent out for recycling.

The following ink components are currently used for paper cup printing and are what all emission calculations used. The SDS and CDS can be found in the appendix.

1011284	pH ADJUSTER
1011536	X412 SILICONE BLEND
1014076	STARBRITE EXTENDER VARNISH
1017104	PROPYLENE GLYCOL
1017105	ISOPROPYL ALCOHOL 99%
1062733	N-PROPYL ACETATE
1062849	VIOLET DISPERSION
1286138	LOW CONDUCTIVITY BLACK BASE
1359441	INXSPERSE II YS ORANGE
1389576	ECO-ICE INK CLEANER EMULSIFIER
1457959	MIXING DEFOAMER
1459038	OPTICAL BRIGHTENER SOLUTION
1476993	FNS DEFOAMER
1534494	INXSPERSE II PLUS BLUE 15:3
1534496	INXSPERSE II PLUS RED 81:3
1534497	INXSPERSE II PLUS GREEN 7
1534498	INXSPERSE II PLUS RUBINE RED 57
1534499	INXSPERSE II PLUS YELLOW 14
1534503	INXSPERSE II PLUS RED 22
1534505	INXSPERSE II PLUS RED 184
1534515	INXSPERSE II PLUS CARB VIOLET 23
1535625	INXhrc DISPENSER WHITE
1536372	INXhrc POLY CUP EXTENDER DV51190
PK 263	Michelman Plate Kote

Dart also has included the water-based paper primer, hot melt glue that is used for double walled cups, and the water-based ink cleaner that will be used in the SDS packet in Appendix G.

The existing ink color mixing and metering equipment will be used to prepare the ink needed for the jobs being run on the new printers. This mixing occurs in the ink room and uses covered equipment to minimize emissions. The ink pails are kept closed while in storage.

Currently a coating is not placed over the graphics, but Dart is keeping the option the use of coating option open as one of the incoming new printers will have a coating station in case a customer desires a coating to enhance appearance or cup properties.

Solo is requesting no changes to allowed annual VOC and HAP emissions but is requesting the annual ink limit be increased to 3,337,777 # and the coating usage limit be reduced to 4,450,369 #. Dart is also requesting an ammonia hydroxide emission limit of 6.65 # hour in order to assure compliance with the

Solo Federalsburg, MD – 2025 Permit to Construct – Replacement Printers

offsite concentration limits in COMAR 26.11.16.02. This corresponds to a pH adjuster usage limit of 47 #/hr if maximum ink were applied, but as the ink usage is reduced the pH adjuster usage could increase.

We have attached the PTE and expected emissions calculations for the replacement printers along with the site wide TAP demonstration / screening information in the Appendices C and D.

As equipment is moved in and out of the Federalsburg plant Dart/Solo will make sure that we continue to comply with the current permit emission and usage limits. Due to space constraints there will never be a possibility of more than 4 printers being in operation at any one time.

Application forms that with additional process and equipment details related to these new printers are found in Appendix A.

Emissions Information

PTE and Expected VOC and HAP from Ink Mixing & Usage in Replacement Printers

We determined the PTE and expected emission as shown on the table below using a mass balance approach based on the information from the SDSs, the new printer's equipment specs and the historical ink usage information.

Pollutant	Type of pollutant	PTE (TPY)	Expected Emissions (TPY)
INK	VOC	16.69	3.50
INK	HAP	0.12	.03
COATING	VOC	30.49	0
COATING	HAP	0.24	0
TOTALS	VOC	47.18	3.50
	HAP	0.36	0.10

The PTE emissions were calculated using the maximum ink usage (3,337,777 bls/yr) assuming 100 % coverage of the maximum paper through the 3 new printers to be installed. The VOC PTEs of these new printers will be around 16.69 TPY assuming a 1 % VOC ink content, compared to the 0.46 % average over the last 12 months. The HAPs PTE was determined to be 0.12 TPY when a 2 times safety factor was used in case the color ratios change. Retaining the option to apply coating for Comexi 16 , the F2 printer, adds an additional 30.5 TPY of VOC and 0.24 TPY of HAP.

It is assumed that all ink made is used. The ink supplier, who mixes colors onsite, meters the components /ink colors used so that accurate usage information is available each month. They then use this data along with the substance make up information to supply Dart with a report each month that shows the amount of ink made/used, VOC added, HAPs added and EPCRA 313/toxic chemicals used/included in the ink recipes. Dart assumes that all the material listed on the Ink Supplied report is emitted onsite.

A water based paper primer is applied to the paper prior to the ink being applied but since water-based there is no VOC content as shown in the attached SDS.

Based on the current color ratio and expected production rates, the VOC emissions are estimated to be around 3.5 TPY and HAP emissions will be less than 0.1 TPY.

Currently no coating is used for cups but one of the printers is equipped with a coater so in case customers want that in the future we have estimated that 75 % of the cups through that printer will be coated. Even with this coating use the PTE of the new printers will not exceed the current 50 TPY permit limit the site has in place under permit #011-0044 as maximum VOC emissions would be 47.15 TPY and HAPs would be 0.51 TPY including the combustion emissions from the dryer.

A small portion of the cups will be double walled. This process uses a hard hot melt glue that has no VOCs as shown on the attached SDS.

The emission calculation details can be found in Appendix C.

Combustion Emissions

Combustion Emissions from the printer dryers were determined using AP-42 emission factors and assume 100 % firing rate and 8760 hrs. per year. The combustion emissions below are for the entire project (3 printer dryer units).

Pollutant	PTE (TPY)
Nox	2.97
CO	2.49
SO2	0.02
PM	0.23
PM10	0.23
PM2.5	0.23
THC/VOC	0.16
Lead	.00001
HAPs	0.06

The combustion emission calculations can be found in Appendix C.

Paper Machines and Scrap Handling PM Emissions

Dart/Solo plants to add an addition 37 paper cup making machines to the existing 38 machines that are currently onsite. The site will also add an additional 6 Blankers to bring the total to 10 that are used to cut the shape of the cup stock which is then rolled, sealed by either thermal heating of the coated paper or glue.

Dart assumes that less than 1 % of the scrap is dust and that the dust control procedures, which include spiders and cyclones and fabric bags, control that dust to make sure that no more than 1 % of it becomes an airborne emission.

Dart does not anticipate handling any more scrap or generating any additional dust or PM emissions than the current operations did as the cup scrap increase will be made up by the decrease in paper plate scrap.

The PM PTE based on a worst case scrap generation rate of 35.9 Tons per day and the expected dust and control efficiencies is 1.31 TPY.

Toxic Ambient Impact Demonstration

Maryland requires all new projects to identify and quantify their toxic emission and then perform an evaluation to assure that the offsite impact of listed toxics are acceptable and meet TBACT requirements. These requirements and the methods on how to perform this evaluation are found in COMAR 26.11.15.04 to 26.11.15.06.

Dart/Solo reviewed the SDS and the CDS, certified data sheets, for all the inks and coatings that will be used to print paper cup stock to determine if the ink or additive contained a Maryland toxic and if so how much on a % by weight basis.

Based on the maximum printer speeds the maximum amount of ink that would be used on premises-wide basis was determined. Since the 3 new printers will replace all 4 of the existing printers the new printers maximum ink usage represents the site wide/premises-wide usage and emissions.

The above data points were then used to determine the maximum hourly and annual emissions of each toxic. The results of these calculations can be seen in Appendix D.

This was compared to the allowable emissions as determined by Test 1 as described on the “Demonstrating Compliance with the Ambient Impact Requirement under the TAP Regulations” guidance document as shown below, which is also shown in Appendix D.

ALLOWABLE Factors for Test # 1 from COMAR 26.22.16.02, used short stack					
1 or 8 hr		0.00358			
Annual		365			
CAS	NAME	Total Premise Max #/hr	Allowable Emission Rate (lbs/hr) - 1 hour	AER (lbs/hr) - 8 hr	AER (lbs/yr) - Annual
111422	DIETHANOLAMINE	0.00000		0.04	
100414	ETHYL BENZENE	0.00000		3.11	
118741	HEXACHLOROBENZENE	0.00000		0.00	0.73
87865	PENTACHLOROPHENOL	0.00000		0.02	
67630	ISOPROPYL ALCOHOL	0.21993	35.19	17.60	
109604	N-PROPYL ACETATE	0.07331	37.39	29.91	
1317802	Titanium Dioxide	1.22185		0.36	*Solid - Will not produce air emissions
147148	COPPER PHTHALOCYANINE	19.24411		2.20	*Solid - will not produce air emission
2634335	BENZISOTHAZOL-3(2H)-ONE	0.07876		0.06	
112345	ETHANOL, 2-(2-BUTOXYETHOXY)-	0.02136		0.12	
34590948	DIPROPYLENE GLYCOL METHYL ETHER	0.01419	32.55	43.40	
141435	ETHANOLAMINE	0.00176	0.54	0.29	
8042475	Oil Mist, mineral	0.34212			
1333864	CARBON BLACK	10.99664		0.11	*Solid - Will not produce air emissions
1336216	AMMONIUM HYDROXIDE	12.49073	1.80	1.28	
100425	STYRENE	0.02647	6.10	3.05	

CAS # that are highlighted in orange are a HAP

As shown, the majority of the toxic emissions are present and emitted at such low levels that they are below Maryland allowed toxic emission limits. Five (5) substances were above the allowable emission rates but three (3) of them, Titanium Dioxide, Copper, and Carbon Black, are solids so will not be emitted into the air, so no additional analysis is required.

The remaining air toxic that exceeds the allowable emission rate are ammonium hydroxide and Benzisothiazol-3(2H)-one. Screen3 Modeling was used to determine a conservative ambient impact.

The Screen3 run for Benzisothiazol-3(2H)-one showed that the predicted ambient offsite level is 5.891 ug/m3 (1-hour) screening level, which converts to an 8 hr. value of 4.1237 ug/m3 when the .7 conversion is made which is below the 8 hr. screening level of 16.1000 ug/m3. The Screen3 output can be found in Appendix E.

For ammonium hydroxide emissions, at maximum usage levels (12.49 #/hr or 1.57 gram/sec) produce an impact above the 501 ug/m3 1-hour allowed impact value.

Solo Federalsburg, MD – 2025 Permit to Construct – Replacement Printers

Therefore, Dart back calculated the amount of ammonium hydroxide that could be emitted while keeping the offsite ambient impacts below the 501 ug/m³ screening limit. This emission rate is 0.84 gr/sec of emissions or 6.65 #/hr. Since the majority of the ammonium hydroxide is produced by the use of the press side pH Adjuster additive, the impact on production of constraining emission to this rate is manageable. Dart is willing to take an hourly limit of 6.65 #/hr. of ammonium hydroxide usage. This emission rate is equivalent to 71.93 gallons of pH adjuster used in any hour that all printers are running at maximum ink usage. At no time will more than 78.24 #/hr of pH adjuster be used. This will be monitored on a daily basis.

We will continue to use water-based ink in the new printer. This ink contains less than 25 % VOC so will continue to meet TBACT requirements and COMAR 26.11.19.02b(2)(d).

Emissions Permit Request

Since these are replacement units, Dart does not intend to ask for an increase in the VOC or HAP emission limits.

We would like to increase the ink usage limit since the printers are capable of printing at faster rates and therefore could use more ink if run at maximum rates and 100 % utilization. We are requesting the **ink usage limit in our current permit # 011-0044 condition C (9) be increased from 2,567,952 #/yr to 3,337,777 #/yr. We would like to reduce the allowed coating limit from 5,910,343 #/yr to 4,450,369 #/yr since only printer Comexi 16 , a Comexi F2 model printer, has a coating station and it is not expected that most cups will go through the coating process.**

We will continue to track monthly VOC and HAP emissions using the information supplied by the ink manufacturer as they mix the colors needed for the runs each month at the onsite mixing station. Coating usage is tracked through purchasing records **This is used to ensure compliance with the current 50 TPY VOC and 25 TPY combined HAP/10 TPY single HAP facility wide 12 month rolling emission limits contained in Part C condition (8) of permit # 011-0044 which Dart/Solo is requesting remain unchanged.**

As stated above, Dart/Solo needs to control the hourly emissions of ammonium hydroxide that can be released in order to show compliance with the offsite concentration limits of 501 ug/m3 1 hour limit. This corresponds to a pH Adjuster usage rate of 71.93 #/hr if 384 #/hr of ink are being used but could be as high as 78.24 #/hr if only non-ammonia containing colors are being used. Dart will monitor daily ammonium hydroxide usage to demonstrate compliance.

We will continue to use water-based ink in the new printer. This ink contains significantly less than the 25 % VOC allowed so will continue to meet TBACT requirements and COMAR 26.11.19.02b(2)(d)

Since the printers are replacement units and there are site wide VOC and HAP emission limits in place, the facility wide PTE of criteria pollutants will remain well below the significance level as no increase in allowable VOC or HAP emissions is requested..

The site will abide by the current permit limits for ink and coating until the old printers are removed at which time it would switch to the updated ink and coating units requested in this application of **3,337,777 #/yr of ink and 4,450,369 #/yr of coating.**

Regulatory Review

Federal NSPS (40 CFR 60)

Subpart QQ—Standards of Performance for Graphic Arts Industry: Publication Rotogravure Printing

Subpart QQ does not apply since we are not printing on a covered product as listed in 40 CFR 60.431.

Federal NESHAP/MACT (40 CFR 63)

Subpart H—National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks

Subpart H does not apply because the ink solutions do not meet the definition of organic HAP service in 40 CFR 63.161 since HAP content is less than 5 % by weight.

Subpart KK—NATIONAL EMISSION STANDARDS FOR THE PRINTING AND PUBLISHING INDUSTRY

This standard does not apply since we do not print on a surface that meets the definition of publication rotogravure printing in 40 CFR 63.822.

Subpart JJJJ—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: PAPER AND OTHER WEB COATING

Subpart JJJJ, NESHAP for Paper and other Web Coatings is not applicable since the site is not a major source of HAPs as the permit limits HAP emissions to below 25 /10 TPY major source limits.

Subpart PPPP—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SURFACE COATING OF PLASTIC PARTS AND PRODUCTS

Subpart PPPP does not apply since we are printing on a paperboard surface and are not a major HAP source.

Subpart HHHHH—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: MISCELLANEOUS COATING MANUFACTURING

Subpart HHHHH, coating and ink manufacturing is not applicable since Dart is not manufacturing a coating as defined in 40 CFR 63.8105 and is not a major HAP source.

Federal PSD (40 CFR 52)

The site is in an area which is classified as attainment for NOx, CO, SO2, PM10/PM2.5 and Ozone.

The site is a minor PSD source for all PSD pollutants emitted by this project, and we are not requesting an increase in emissions that is greater than the major source threshold.

Federal Non-attainment NSR (40 CFR 51 & 52)

This site is in an area that is attainment for all criteria pollutants, so NSR does not apply.

The state implements NSR requirements through COMAR 26.11.17.

CAM (40 CFR 64)

This project is not subject to CAM requirements since no emission units have a PTE above the major source threshold, nor do they utilize a control device to achieve compliance with an emission limitation or standard.

COMAR 26.11.01 – General Administrative Provisions

Testing 26.11.01.04

This site will comply with all testing requirements and methods.

Recordkeeping 26.11.01.05

This site will keep all records and information to prove compliance with permit conditions and applicable regulations.

Malfunctions and Other Temporary Increases of Emissions 26.11.01.07

This site will report excess emissions from these printers if they occur.

COMS/CEMS Requirements 26.11.01.10/.11

Each printer dryer can combust up to 0.565 MMBTU/hr. of natural gas (per dryer). The COM and CEMS requirements of these provisions do not apply to units that combust only natural gas.

COMAR 26.11.02 - Permits

This application is being submitted to meet the construction permit requirements in this section (primarily 26.11.02.09, .13 and .14 and .19).

COMAR 26.11.03 – Title V Permits

Solo site and the processes conducted here do not exceed the Title V applicability threshold even after this project is completed and emissions added so this site does not need a Title V permit.

COMAR 26.11.04 – Ambient Standards

This regulation has no direct impact on single facilities/sites. This site is in an area that is designated as attainment for all criteria pollutants and Fluoride.

COMAR 26.11.05 – Air Pollution Episode System

Solo has not been requested to prepare an emission reduction plan. If requested to do so it will comply with the requirements in Table I, II, and III in source group (3) for the paper production process and source group (5) for the other processes (plastic extrusion and thermoforming and associated printing on both processes). This plan if required will include the emissions from the new printers.

COMAR 26.11.06 – General Emission Standards, Prohibitions, and Restrictions

Visible Emissions 26.11.06.02(C) (1) –The site is in Caroline County which is designated as an area VI and therefore so it must meet keep the visible emissions below 20 % opacity except for during startup and adjustments.

Visible emissions from the printer's dryers exhaust will not exceed 20 % except for brief time spans of less than 6 consecutive minutes during start-up /process adjustments/modifications when they can be up to 40 % opacity as allowed for in (A).2 (a) and (b).

Particulate Matter 26.11.06.03(C) & (B) - Reasonable precautions will be implemented to limit any particulate being generated from becoming airborne.

The dryers PM is regulated through the dryer requirements but will not emit PM emissions more than 0.05 gr/SCFD as required by .03B(1)(a) for equipment and process installed after Jan 17, 1972.

There is no material handling or other unconfined sources associated with the printers.

Carbon Monoxide in Areas III and IV 26.11.06.04

The site is in Area VI, so this regulation does not apply.

Sulfur Compounds from other than Fuel- Burning Equipment 26.11.06.05(B)

This printer will not produce sulfur emissions other than those from the dryer's which are fuel burning units. The natural gas contains less than 500 ppm S so is compliant with requirements in .05 B (1) since the site is in area VI.

Volatile Organic Compounds 26.11.06.06

This regulation does not apply to the printers because they are subject to 26.11.19.10- Flexographic and Rotogravure Printing as provided in 26.11.06.06(A)(1)(d).

Nuisance 26.11.06.08

This printer will be maintained in a manner to make sure it does not create a nuisance.

Odor 26.11.06.09

This printer will not be operated in a manner that generates an odor that creates a nuisance.

Control of NSPS Sources 26.11.06.12

This printer is not covered by NSPS regulation.

Control of PSD Sources 26.11.06.14

This site is not a major PSD source, and this printer does not increase emissions by a significant amount, so this installation is not regulated by PSD as detailed in the Federal rule analysis above.

COMAR 26.11.07 – Open Fires

This printer does not have open fires associated with its operation.

COMAR 26.11.09 – Control of Fuel Burning Equipment, stationary Internal Combustion Engines, and Certain Fuel-Burning Installations

Prohibition of Certain New Fuel Burning Equipment 26.11.09.04

The printers will be fired only on natural gas.

Visible Emissions 26.11.09.05

The visible emissions from the printer dryers which fire fuel will be less than 20 % opacity per .05A (1) except possibly during up to 6 minutes of dryer startups when they will not exceed 40 % opacity when these occur due to startups or adjustments per .05A (3). Opacity will be determined by EPA Method 22 first and then Method 9 since no COMs is required per the exemption in 26.11.01.10(A) and no opacity is expected.

Control of PM 26.11.09.06

The PM limits do not apply to fuel burning equipment that burns gas per the exemption in (A)(3)(c) and there are no PM emissions associated with the ink application.

Control of Sulfur Oxides from Fuel Burning Equipment 26.11.09.07(A)(1)(d)

The printer dryer burns Natural Gas, so the sulfur content limit is 0.3 %. Pipeline supplied natural gas will be used, which will easily comply with this sulfur limit.

COMAR 26.11.13- Control of Gasoline and VOC Storage and Handling

The total vapor pressure of inks and coatings is not expected to exceed 1.5 psia. Neither the printers nor the printing process participate in the storage, handling, or transfer of gasoline and volatile organic compounds as provided in this Chapter.

Large Storage Tanks 26.11.13.03

There are no large storage tanks (> 40,000 gallons) or open top tanks storing VOCs with TP > 1.5 psi associated with this operation, so it is not subject to these regulations.

COMAR 26.11.15/16- TAP/Procedures related to Requirements for TAP

Control of NESHAP and MACT Sources 26.11.15.02

These printers do not fall under a NESHAP or MACT source as discussed above in the Federal rule section.

Requirements to Quantify Emissions 26.11.15.04

Solo has reviewed the SDS for all the inks associated with these printers along with the supplier formulation data for inks delivered and used in 2024/2025. This information is used to determine the % of TAP/HAP in each ink and overall based on current color and component usage trends. The attached spreadsheet quantifies the maximum and expected emission of TAP/HAP based on the 2024/2025 color and component ratios. These demonstrate that Solo will comply with TAP requirements.

Control Technology Requirements 26.11.15.05

Solo has previously looked at alternative means of printing and performed a preliminary TBACT analysis that includes alternate process and control which showed that the water-based printing not only meets the Maryland printing regulations but also meets TBACT requirements. See the attached TBACT in Appendix F.

Ambient Impact Requirement 26.11.15.06

As demonstrated on the attached sheets all TAPS that are emitted have been evaluated using the methods and equations in COMAR 26.11.16.02 at the worst-case emission rates corresponding to the ink and coating usage that would occur if the site were emitting at its allowed 50 TPY VOC limit.

As previously submitted and identified in the permit there are 2 different operating scenarios evaluated based on the balanced cup and plate and heavy plate production.

As the spreadsheet shows, all TAPs except ammonium hydroxide, Titanium Dioxide, Copper Compounds, and Carbon Black passed the simple screening procedures in Test 1 as described in COMAR 26.11.16.02. Ammonium Hydroxide was analyzed using Screen3 and the projected maximum concentration was lower than the allowed screening level. Titanium Dioxide, Copper Compounds, and Carbon Black were not subject to the screening procedures due to these constituents being solid within the ink recipe. These solids are not expected to produce air emissions.

COMAR 26.11.17- Nonattainment Provisions for Major New Sources and Major Modifications

This chapter applies to major stationary sources or major modification of a stationary sources proposing to build or make changes that would increase emissions in an area designated as "nonattainment". The site is in an area that is classified as attainment for all criteria pollutants. Therefore, this chapter does not apply to this project.

COMAR 26.11.19- VOC from Specific Processes

Paper, Fabric, Film, and Foil Coating 26.11.19.07

The web paper coating requirements in this regulation apply.

Flexographic and Rotogravure Printing 26.11.19.10

The printers are web-fed flexographic printers that will be used to print cup stock /cardboard that is then cut and rolled into cups. The site, uses water-based ink and coatings and the cleanup materials do not emit VOCs. This printer will utilize water-based ink that contains less the 25 % VOC by volume as shown in the attached calculations. The site is not subject to the requirements of C as it is not a major stationary source as defined in Regulation .01B(4) of chapter 19.

Flexible Packaging Printing 26.11.19.10-1

The Comexi flexographic printers will not print on flexible packaging thus these requirements are not applicable.

Control of VOC Equipment Leaks 26.11.19.16

Since this site is subject to VOC emission limits in Chapter 19, the control of VOC equipment leaks provisions in this subchapter apply to any transfer line in the process that is transferring a VOC liquid and the inks and coatings VOC content is less than 1.5 %..

To meet the intent of this regulation Solo does a visual inspection of all components and transfer lines as part of the printer startup process. Any leaks that are identified are immediately fixed unless an additional component or fixture is needed and in those cases the repair is noted, and the maintenance fix is done within 48 hours and the repair documented.

Applicability, Determining Compliance, Reporting, and General Requirements 26.11.19.02

The site will keep records to demonstrate compliance with the requirements in this subsection and on an applied basis for each coating/ink. Any testing done to determine or prove compliance will be done using approved test methods and the calculations in this subsection.

This site has a VOC limit of 50 TPY so it is not classified as a major source, so section G requirements do not apply.

The site is operating in a manner that uses good operating practices including training, spill response and use of covered storage containers to limit VOC emissions. Similar practices and procedures are applied to cleanup operations and the use of any VOC solvents.

There are no VOC storage tanks with capacities greater than 2,000 gallons so (I)(4) does not apply.

COMAR 26.11.21/23- Control of Asbestos/Asbestos Accreditation

This printers will have no asbestos associated with them.

COMAR 26.11.26- Conformity

Conformity requirements apply to transportation plans or projects that involve federal funding or approval. This project is not subject to conformity requirements.

COMAR 26.11.28- Cross-State Air Pollution Rule

This rule applies to fossil-fuel-fired electric generating units such as large fossil fuel-fired boilers and turbines. The dryers associated with these printers, and the site combustion units do not meet the applicability provisions, so this chapter does not apply.

Additional State Regulations that do not Apply

The following regulations do not apply to this printer since it is not a listed/covered process/equipment:

- COMAR 26.11.08- Control of Incinerators
- COMAR 26.11.10-Control of Iron and Steel Production Installations
- COMAR 26.11.11- Control of Petroleum Products Installations
- COMAR 26.11.12- Control of Batch Type Hot Dip Galvanizing Installations
- COMAR 26.11.14- Control of Emissions from Kraft Pulp Mills
- COMAR 26.11.18- Control of Agriculturally Related Installations
- COMAR 26.11.20 – Mobile Sources
- COMAR 26.11.22- Vehicle Emission Inspection
- COMAR 26.11.24- Stage II Vapor Recovery at Gasoline Dispensing Facilities
- COMAR 26.11.25- Control of Glass Melting Furnaces
- COMAR 26.11.27- Emission Limits for Power Plants
- COMAR 26.11.29- Control of NOx Emissions from NG Pipeline Compression Stations
- COMAR 26.11.30- Control of Portland Cement Manufacturing Plants
- COMAR 26.11.32-Control of Emission of VOC from Consumer Products
- COMAR 26.11.33- Architectural Coatings
- COMAR 26.11.34-Low Emission Vehicle Program
- COMAR 26.11.35- VOC from Adhesives and Sealants
- COMAR 26.11.36- Distributed Generation
- COMAR 26.11.38- Control of NOx Emissions from Coal-Fired Electric Generating Units
- COMAR 26.11.31-QA Requirements for COMs
- COMAR 26.11.37- Outer Continental Shelf Air Regulations

Appendix A- Application Forms



AIR QUALITY PERMIT TO CONSTRUCT APPLICATION CHECKLIST

OWNER OF EQUIPMENT/PROCESS	
COMPANY NAME:	Solo Cup Operating Company
COMPANY ADDRESS:	1000 Industrial Road, Federalsburg, MD 21632
LOCATION OF EQUIPMENT/PROCESS	
PREMISES NAME:	Solo Cup Operating Company
PREMISES ADDRESS:	1000 Industrial Road, Federalsburg, MD 21632
CONTACT INFORMATION FOR THIS PERMIT APPLICATION	
CONTACT NAME:	Frank Cole
JOB TITLE:	EHS Manager
PHONE NUMBER:	(410) 479-4800
EMAIL ADDRESS:	Frank.Cole@dart.biz
DESCRIPTION OF EQUIPMENT OR PROCESS	
Installation of 3 new water-based Comexi printers to replace the 4 existing printers.	

Application is hereby made to the Department of the Environment for a Permit to Construct for the following equipment or process as required by the State of Maryland Air Quality Regulation, COMAR 26.11.02.09.

Check each item that you have submitted as part of your application package.

- ☒ Application package cover letter describing the proposed project
- ☒ Complete application forms (Note the number of forms included or NA if not applicable.)

No. <u> X </u> Form 5	No. <u> NA </u> Form 11
No. <u> X </u> Form 5T	No. <u> NA </u> Form 41
No. <u> X </u> Form 5EP	No. <u> NA </u> Form 42
No. <u> NA </u> Form 6	No. <u> NA </u> Form 44
No. <u> NA </u> Form 10	
- ☐ Vendor/manufacture specifications/guarantees
- ☒ Evidence of Workman's Compensation Insurance
- ☒ Process flow diagrams with emission points
- ☐ Site plan including the location of the proposed source and property boundary
- ☒ Material balance data and all emissions calculations
- ☒ Material Safety Data Sheets (MSDS) or equivalent information for materials processed and manufactured.
- ☐ Certificate of Public Convenience and Necessity (CPCN) waiver documentation from the Public Service Commission ⁽¹⁾
- ☐ Documentation that the proposed installation complies with local zoning and land use requirements ⁽²⁾

⁽¹⁾ Required for emergency and non-emergency generators installed on or after October 1, 2001 and rated at 2001 kW or more.

⁽²⁾ Required for applications subject to Expanded Public Participation Requirements.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Blvd ▪ Baltimore, Maryland 21230
(410) 537-3230 ▪ 1-800-633-6101 ▪ www.mde.state.md.us

Air and Radiation Management Administration ▪ Air Quality Permits Program

APPLICATION FOR PROCESSING/MANUFACTURING EQUIPMENT

Permit to Construct ☒

Registration Update ☐

Initial Registration ☐

1A. Owner of Equipment/Company Name

Solo Cup Operating Company

Mailing Address

PO Box 129

Street Address

Federalsburg

MD

21632

City

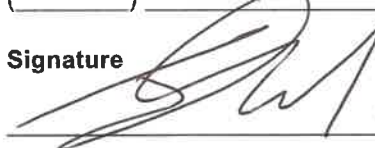
State

Zip

Telephone Number

(410) 422-6700

Signature



Jeff Millward, Plant Manager

Print Name and Title

DO NOT WRITE IN THIS BLOCK

2. REGISTRATION NUMBER

County No.

1-2

Premises No.

3-6

Registration Class

7

Equipment No.

8-11

Data Year

12-13

Application Date

Date

9-26-25

1B. Equipment Location and Telephone Number (if different from above)

Street Number and Street Name

City/Town

State

Zip

()

Telephone Number

Premises Name (if different from above)

3. Status (A= New, B= Modification to Existing Equipment, C= Existing Equipment)

Status

A	

15

New Construction
Begun (MM/YY)

0	1	26	

16-19

New Construction
Completed (MM/YY)

20-23

Existing Initial
Operation (MM/YY)

20-23

4. Describe this Equipment: Make, Model, Features, Manufacturer (include Maximum Hourly Input Rate, etc.)

5. Workmen's Compensation Coverage 570115243024

07/31/2026

Binder/Policy Number

Expiration Date

Company: Aon Risk Services Central, Inc

NOTE: Before a Permit to Construct may be issued by the Department, the applicant must provide the Department with proof of worker's compensation coverage as required under Section 1-202 of the Worker's Compensation Act.

6A. Number of Pieces of Identical Equipment Units to be Registered/Permitted at this Time 3 printers/

6B. Number of Stack/Emission Points Associated with this Equipment 3



7. Person Installing this Equipment (if different from Number 1 on Page 1)

Name _____ Title _____

Company _____

Mailing Address/Street _____

City/Town _____ State _____ Telephone (____) _____

8. Major Activity, Product or Service of Company at this Location

Paper Cup Manufacturing

9. Control Devices Associated with this Equipment

None

☒

24-0

Simple/Multiple
Cyclone☐

24-1

Spray/Adsorb
Tower☐

24-2

Venturi
Scrubber☐

24-3

Carbon
Adsorber☐

24-4

Electrostatic
Precipitator☐

24-5

Baghouse

☐

24-6

Thermal/Catalytic
Afterburner☐

24-7

Dry
Scrubber☐

24-8

Other

☐

Describe _____

24-9

10. Annual Fuel Consumption for this Equipment

OIL-1000 GALLONS

26-31

SULFUR %

32-33

GRADE

34

NATURAL GAS-1000 FT³

35-41

LP GAS-100 GALLONS

42-45

GRADE

COAL- TONS

46-52

SULFUR %

53-55

ASH%

56-58

WOOD-TONS

59-63

MOISTURE %

64-65

OTHER FUELS

ANNUAL AMOUNT CONSUMED

(Specify Type)

66-1

(Specify Units of Measure)

OTHER FUEL

ANNUAL AMOUNT CONSUMED

(Specify Type)

66-2

(Specify Units of Measure)

1= Coke 2= COG 3=BFG 4=Other

11. Operating Schedule (for this Equipment)

Continuous Operation

☒

67-1

Batch Process

☐

67-2

Hours per Batch

68-69

Batch per Week

Hours per Day

70-71

Days Per Week

72

Days per Year

73-75

Seasonal Variation in Operation:

No Variation

☒

76

Winter Percent

77-78

Spring Percent

79-80

Summer Percent

81-82

Fall Percent

83-84

(Total Seasons= 100%)



12. Equivalent Stack Information- is Exhaust through Doors, Windows, etc. Only? (Y/N)

N

85

See Stack Information on Each Printer 5EP Forms

If not, then

Height Above Ground (FT)

Inside Diameter at Top

Exit Temperature (°F)

Exit Velocity (FT/SEC)

86-88

89-91

92-95

96-98

NOTE:**Attach a block diagram of process/process line, indicating new equipment as reported on this form and all existing equipment, including control devices and emission points.****13. Input Materials (for this equipment only)**Is any of this data to be considered confidential?

Y

 (Y or N)**INPUT RATE**

	NAME	CAS NO. (IF APPLICABLE)	PER HOUR	UNITS	PER YEAR	UNITS
1.	Waterbased Ink		384.98	Lbs	3,337,777	Lbs
2.	Coating		508.03	Lbs	4,450,369	Lbs
3.	Paper Stock rolled					
4.						
5.						
6.						
7.						
8.						
9.						

TOTAL**14. Output Materials (for this equipment)****Process/Product Stream****OUTPUT RATE**

	NAME	CAS NO. (IF APPLICABLE)	PER HOUR	UNITS	PER YEAR	UNITS
1.	Printed Cup Stock					
2.	Paper Cups					
3.						
4.						
5.						
6.						
7.						
8.						
9.						

TOTAL**15. Waste Streams- Solid and Liquid****OUTPUT RATE**

	NAME	CAS NO. (IF APPLICABLE)	PER HOUR	UNITS	PER YEAR	UNITS
1.	Scrap Paper/trim					
2.	water /ink washup					
3.						
4.						
5.						
6.						
7.						
8.						
9.						

TOTAL

16. Total Stack Emissions (for this equipment only) in Pounds Per Operating Day

Particulate Matter					
		0	.	2	3

99-104

Oxides of Sulfur					
		0	.	0	2

105-110

Oxides of Nitrogen					
		2	.	9	7

111-116

Carbon Monoxide					
		2	.	4	9

177-122

Volatile Organic Compounds					
	4	7	.	3	4

123-128

PM-10					
		0	.	0	2

129-134

17. Total Fugitive Emissions (for this equipment only) in Pounds Per Operating Day

Particulate Matter					

135-139

Oxides of Sulfur					

140-144

Oxides of Nitrogen					

145-149

Carbon Monoxide					

150-154

Volatile Organic Compounds					

155-159

PM-10					

160-164

Method Used to Determine Emissions (1= Estimate 2= Emission Factor 3= Stack Test 4= Other)

TSP
2

165

SOX
2

166

NOX
2

167

CO
2

168

VOC
2

169

PM10
2

170

AIR AND RADIATION MANAGEMENT ADMINISTRATION USE ONLY**18. Date Rec'd. Local****Date Rec'd. State****Return to Local Jurisdiction**

Date _____ By _____

Reviewed by Local Jurisdiction

Date _____ By _____

Reviewed by State

Date _____ By _____

19. Inventory Date**Month/Year**

171-174

Equipment Code

175-177

SCC Code

178-185

20. Annual**Operating Rate**

186-192

Maximum Design**Hourly Rate**

193-199

Permit to Operate**Month**

200-201

Transaction Date**(MM/DD/YR)**

202-207

Staff Code

208-210

VOC Code

211 212

SIP Code

213 214

Regulation Code

215-218

Confidentiality

219

Point Description

220-238

Action

239

A: Add
C: Change

FORM 5T: Toxic Air Pollutant (TAP) Emissions Summary and Compliance Demonstration

Applicant Name: Solo Cup Operating Company

Step 1: Quantify premises-wide emissions of Toxic Air Pollutants (TAP) from new and existing installations in accordance with COMAR 26.11.15.04. Attach supporting documentation as necessary.

Toxic Air Pollutant (TAP)	CAS Number	Class I or Class II?	Screening Levels (µg/m ³)				Estimated Premises Wide Emissions of TAP		
			Actual Total Existing TAP Emissions			Projected TAP Emissions from Proposed Installation	Premises Wide Total TAP Emissions		
			1-hour	8-hour	Annual		(lb/hr)	(lb/yr)	
ex. ethanol	64175	II	18843	3769	N/A		0.60	0.75	1500
ex. benzene	71432	I	80	16	0.13		0.5	1.00	400
See attached calculations.									

(attach additional sheets as necessary.)

Note: Screening levels can be obtained from the Department's website (<http://www.mde.maryland.gov>) or by calling the Department.

Step 2: Determine which TAPs are exempt from further review. A TAP that meets either of the following Class I or Class II small quantity emitter exemptions is exempt from further TAP compliance demonstration requirements under Step 3 and Step 4.

Class II TAP Small Quantity Emitter Exemption Requirements (COMAR 26.11.15.03B(3)(a))

A Class II TAP is exempt from Step 3 and Step 4 if the Class II TAP meets the following requirements: Premises wide emissions of the TAP shall not exceed 0.5 pounds per hour, and any applicable 1-hour or 8-hour screening level for the TAP must be greater than 200 µg/m³.

Class I TAP Small Quantity Emitter Exemption Requirements (COMAR 26.11.15.03B(3)(b))

A Class I TAP is exempt from Step 3 and Step 4 if the Class I TAP meets the following requirements: Premises wide emissions of the TAP shall not exceed 0.5 pounds per hour and 350 pounds per year, any applicable 1-hour or 8-hour screening level for the TAP must be greater than 200 µg/m³, and any applicable annual screening level for the TAP must be greater than 1 µg/m³.

If a TAP meets either the Class I or Class II TAP Small Quantity Emitter Exemption Requirements, no further review under Step 3 and Step 4 are required for that specific TAP.

FORM 5T: Toxic Air Pollutant (TAP) Emissions Summary and Compliance Demonstration

Step 3: Best Available Control Technology for Toxics Requirement (T-BACT, COMAR 26.11.15.05)

In the following table, list all TAP emission reduction options considered when determining T-BACT for the proposed installation. The options should be listed in order beginning with the most effective control strategy to the least effective strategy. Attach supporting documentation as necessary.

Target Pollutants	Emission Control Option	% Emission Reduction	Costs		T-BACT Option Selected? (yes/no)
			Capital	Annual Operating	
ex. ethanol and benzene	Thermal Oxidizer	99	\$50,000	\$100,000	no
ex. ethanol and benzene	Low VOC materials	80	0	\$100,000	yes
Ammonia	Scrubber	See Attached			No
VOC HAPs and TAPs	RTO	See Attached			No
TAPs	Water Based Ink - No Control			\$0	Yes

(attach additional sheets as necessary)

Step 4: Demonstrating Compliance with the Ambient Impact Requirement (COMAR 26.11.15.06)

Each TAP not exempt in Step 2 must be individually evaluated to determine that the emissions of the TAP will not adversely impact public health. The evaluation consists of a series of increasingly non-conservative (and increasingly rigorous) tests. Once a TAP passes a test in the evaluation, no further analysis is required for that TAP. "Demonstrating Compliance with the Ambient Impact Requirement under the Toxic Air Pollutant (TAP) Regulations (COMAR 26.11.15.06)" provides guidance on conducting the evaluation. Summarize your results in the following table. Attach supporting documentation as necessary.

Toxic Air Pollutant (TAP)	CAS Number	Screening Levels (µg/m ³)			Premises Wide Total TAP Emissions	Allowable Emissions Rate (AER) per COMAR 26.11.16.02A		Off-site Concentrations per Screening Analysis (µg/m ³)			Compliance Method Used?
		1-hour	8-hour	Annual		(lb/hr)	(lb/yr)	1-hour	8-hour	Annual	
ex. ethanol	64175	18843	3769	N/A	0.75	0.89	N/A	N/A	N/A	N/A	AER
ex. benzene	71432	80	16	0.13	1.00	0.04	36.52	1.5	1.05	0.12	Screen
See Attached											
Toxic Sheet											

(attach additional sheets as necessary)

If compliance with the ambient impact requirement cannot be met using the allowable emissions rate method or the screening analysis method, refined dispersion modeling techniques may be required. Please consult with the Department's Air Quality Permit Program prior to conducting dispersion modeling methods to demonstrate compliance.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Management Administration • Air Quality Permits Program

1800 Washington Boulevard • Baltimore, Maryland 21230

(410)537-3225 • 1-800-633-6101 • www.mde.maryland.gov

FORM 5EP: Emission Point Data

Complete one (1) Form 5EP for EACH emission point (stack or fugitive emissions) related to the proposed installation.

Applicant Name: Solo Cup Operating Company

1. Emission Point Identification Name/Number

List the applicant assigned name/number for this emission point and use this value on the attached required plot plan:

Comexi 10 - Model FI

2. Emission Point Description

Describe the emission point including all associated equipment and control devices:

Comexi 10 - Water based printer used in cup manufacturing proces.

3. Emissions Schedule for the Emission Point

Continuous or Intermittent (C/I)?	C	Seasonal Variation Check box if none: ☒ Otherwise estimate seasonal variation:	
Minutes per hour:	60	Winter Percent	
Hours per day:	24	Spring Percent	
Days per week:	7	Summer Percent	
Weeks per year:	52	Fall Percent	

4. Emission Point Information

Height above ground (ft):	35.4	Length and width dimensions at top of rectangular stack (ft):	Length:		Width:	
Height above structures (ft):	7					
Exit temperature (°F):	248	Inside diameter at top of round stack (ft):				1.97
Exit velocity (ft/min):	1670	Distance from emission point to nearest property line (ft):				161
Exhaust gas volumetric flow rate (acfm):	5024	Building dimensions if emission point is located on building (ft)	Height 28' 5"	Length 641'	Width 600'	

5. Control Devices Associated with the Emission Point

Identify each control device associated with the emission point and indicate the number of devices. **A Form 6 is also required for each control device.** If none check none:

☒ None	☐ Thermal Oxidizer	No. _____
☐ Baghouse	☐ Regenerative	No. _____
☐ Cyclone	☐ Catalytic Oxidizer	No. _____
☐ Elec. Precipitator (ESP)	☐ Nitrogen Oxides Reduction	No. _____
☐ Dust Suppression System	☐ Selective	☐ Non-Selective
☐ Venturi Scrubber	☐ Catalytic	☐ Non-Catalytic
☐ Spray Tower/Packed Bed	☐ Other	No. _____
☐ Carbon Adsorber	Specify:	
☐ Cartridge/Canister		
☐ Regenerative		

FORM 5EP: Emission Point Data

6. Estimated Emissions from the Emission Point

Criteria Pollutants	At Design Capacity (lb/hr)	At Projected Operations		
		(lb/hr)	(lb/day)	(ton/yr)
Particulate Matter (filterable as PM10)	0.000294			
Particulate Matter (filterable as PM2.5)	0.000243			
Particulate Matter (condensables)	0.0032			
Volatile Organic Compounds (VOC)	10.77	1.73		
Oxides of Sulfur (SOx)	0.0003			
Oxides of Nitrogen (NOx)	0.06			
Carbon Monoxide (CO)	0.05			
Lead (Pb)	.0000003			
Greenhouse Gases (GHG)	At Design Capacity (lb/hr)	At Projected Operations		
		(lb/hr)	(lb/day)	(ton/yr)
Carbon Dioxide (CO ₂)	84.79			
Methane (CH ₄)	0.0013			
Nitrous Oxide (N ₂ O)	.00013			
Hydrofluorocarbons (HFCs)	0.0000			
Perfluorocarbons (PFCs)	0.0000			
Sulfur Hexafluoride (SF ₆)	0.0000			
Total GHG (as CO ₂ e)	0.0000			
List individual federal Hazardous Air Pollutants (HAP) below:	At Design Capacity (lb/hr)	At Projected Operations		
		(lb/hr)	(lb/day)	(ton/yr)
See attached Calcs				

(Attach additional sheets as necessary.)

Jeff Millward

Signature

Printed Name

Date

MARYLAND DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Management Administration • Air Quality Permits Program

1800 Washington Boulevard • Baltimore, Maryland 21230

(410)537-3225 • 1-800-633-6101 • www.mde.maryland.gov

FORM 5EP: Emission Point Data

Complete one (1) Form 5EP for EACH emission point (stack or fugitive emissions) related to the proposed installation.

Applicant Name: Solo Cup Operating Company

1. Emission Point Identification Name/Number

List the applicant assigned name/number for this emission point and use this value on the attached required plot plan:
Comexi 15 - model FI

2. Emission Point Description

Describe the emission point including all associated equipment and control devices:

Comexi 15 - Water based printer used in cup manufacturing process.

3. Emissions Schedule for the Emission Point

Continuous or Intermittent (C/I)?	C	Seasonal Variation Check box if none: ☒ Otherwise estimate seasonal variation:	
Minutes per hour:	60	Winter Percent	
Hours per day:	24	Spring Percent	
Days per week:	7	Summer Percent	
Weeks per year:	52	Fall Percent	

4. Emission Point Information

Height above ground (ft):	35.4	Length and width dimensions at top of rectangular stack (ft):	Length:		Width:	
Height above structures (ft):	7					
Exit temperature (°F):	248	Inside diameter at top of round stack (ft):			1.97	
Exit velocity (ft/min):	1670	Distance from emission point to nearest property line (ft):			161	
Exhaust gas volumetric flow rate (acfm):	5024	Building dimensions if emission point is located on building (ft)	Height 28' 5"	Length 641	Width 600	

5. Control Devices Associated with the Emission Point

Identify each control device associated with the emission point and indicate the number of devices. **A Form 6 is also required for each control device.** If none check none:

☒ None	☐ Thermal Oxidizer	No. _____
☐ Baghouse	No. _____	☐ Regenerative
☐ Cyclone	No. _____	☐ Catalytic Oxidizer
☐ Elec. Precipitator (ESP)	No. _____	☐ Nitrogen Oxides Reduction
☐ Dust Suppression System	No. _____	☐ Selective
☐ Venturi Scrubber	No. _____	☐ Catalytic
☐ Spray Tower/Packed Bed	No. _____	☐ Non-Selective
☐ Carbon Adsorber	No. _____	☐ Non-Catalytic
☐ Cartridge/Canister		
☐ Regenerative		
	☐ Other	No. _____
	Specify:	

[illegible]

Jeff Millward

Date

MARYLAND DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Management Administration • Air Quality Permits Program

1800 Washington Boulevard • Baltimore, Maryland 21230

(410)537-3225 • 1-800-633-6101 • www.mde.maryland.gov

FORM 5EP: Emission Point Data

Complete one (1) Form 5EP for EACH emission point (stack or fugitive emissions) related to the proposed installation.

Applicant Name: Solo Cup Operating Company

1. Emission Point Identification Name/Number

List the applicant assigned name/number for this emission point and use this value on the attached required plot plan:

Comexi 16-model F2 with coating station

2. Emission Point Description

Describe the emission point including all associated equipment and control devices:

Comexi 16 - Water based printer used in cup manufacturing process.

3. Emissions Schedule for the Emission Point

Continuous or Intermittent (C/I)?	C	Seasonal Variation Check box if none: ☒ Otherwise estimate seasonal variation:	
Minutes per hour:	60	Winter Percent	
Hours per day:	24	Spring Percent	
Days per week:	7	Summer Percent	
Weeks per year:	52	Fall Percent	

4. Emission Point Information

Height above ground (ft):	35.4	Length and width dimensions at top of rectangular stack (ft):	Length:		Width:	
Height above structures (ft):	7					
Exit temperature (°F):	248	Inside diameter at top of round stack (ft):				1.64
Exit velocity (ft/min):	1670	Distance from emission point to nearest property line (ft):				161
Exhaust gas volumetric flow rate (acfm):	5024	Building dimensions if emission point is located on building (ft)	Height 28' 5"	Length 641'	Width 600'	

5. Control Devices Associated with the Emission Point

Identify each control device associated with the emission point and indicate the number of devices. **A Form 6 is also required for each control device.** If none check none:

☒ None	☐ Thermal Oxidizer	No. _____
☐ Baghouse	☐ Regenerative	No. _____
☐ Cyclone	☐ Catalytic Oxidizer	No. _____
☐ Elec. Precipitator (ESP)	☐ Nitrogen Oxides Reduction	No. _____
☐ Dust Suppression System	☐ Selective	☐ Non-Selective
☐ Venturi Scrubber	☐ Catalytic	☐ Non-Catalytic
☐ Spray Tower/Packed Bed	☐ Other	No. _____
☐ Carbon Adsorber	Specify:	
☐ Cartridge/Canister		
☐ Regenerative		

[illegible]

Jeff Millward

Date



CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY)
09/04/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Aon Risk Services Central, Inc. Chicago IL Office 200 East Randolph Chicago IL 60601 USA	CONTACT NAME: PHONE (A/C. No. Ext): (866) 283-7122 FAX (A/C. No.): (800) 363-0105 E-MAIL ADDRESS:														
INSURED Dart Atlas Holdings LLC 500 Hogsback Road Mason MI 48854-8523 USA	<table><tr><th>INSURER(S) AFFORDING COVERAGE</th><th>NAIC #</th></tr><tr><td>INSURER A: ACE Fire Underwriters Insurance Co.</td><td>20702</td></tr><tr><td>INSURER B: ACE American Insurance Company</td><td>22667</td></tr><tr><td>INSURER C:</td><td></td></tr><tr><td>INSURER D:</td><td></td></tr><tr><td>INSURER E:</td><td></td></tr><tr><td>INSURER F:</td><td></td></tr></table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: ACE Fire Underwriters Insurance Co.	20702	INSURER B: ACE American Insurance Company	22667	INSURER C:		INSURER D:		INSURER E:		INSURER F:	
INSURER(S) AFFORDING COVERAGE	NAIC #														
INSURER A: ACE Fire Underwriters Insurance Co.	20702														
INSURER B: ACE American Insurance Company	22667														
INSURER C:															
INSURER D:															
INSURER E:															
INSURER F:															

COVERAGES **CERTIFICATE NUMBER:** 570115243024 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

Limits shown are as requested

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☐ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☐ PRO-JECT ☐ LOC OTHER:						EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG
	AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY						COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)
	UMBRELLA LIAB ☐ OCCUR EXCESS LIAB ☐ CLAIMS-MADE DED ☐ RETENTION						EACH OCCURRENCE AGGREGATE
B A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	WLRC73099768A (CA FL MI NC TX UT) SCFC73097721 (WI)	07/31/2025 07/31/2025	07/31/2026 07/31/2026	X PER STATUTE OTHER E.L. EACH ACCIDENT \$2,000,000 E.L. DISEASE-EA EMPLOYEE \$2,000,000 E.L. DISEASE-POLICY LIMIT \$2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER Dart Container Corporation 1000 Industrial Park Rd Feddersburg MD 21632 USA	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE <i>Aon Risk Services Central, Inc.</i>

Holder Identifier :

570115243024

Certificate No :

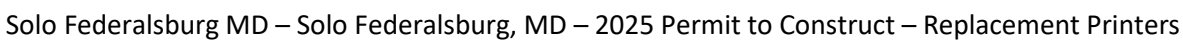


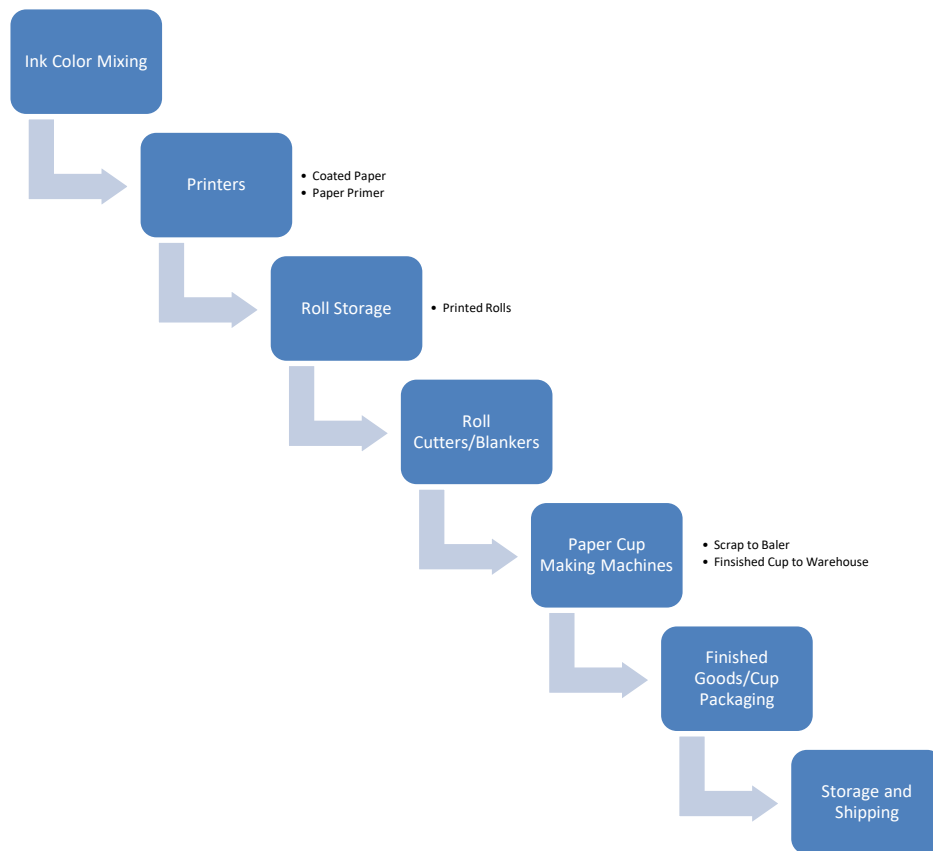


FORM NUMBER: ACORD 25 **FORM TITLE:** Certificate of Liability Insurance

[illegible]

Appendix B – Process Flow Diagram





Appendix C –Printer Emission Calculations

New Printer VOC PTE Emission Calcs – Project/Premises Total

Since all the printers are being replaced the new Printers PTE's will be the site wide /premis wide PTE

		Sitewide Max Potential Ink Usage for 3 new printers @ 100 %		Expected Emissions		for 3 New Printers at Max ink and 100 % up	
		3,337,777		ratio current/max ink	7.06	15	ratio current/max ink
				Max ink Usage from Printer Specs	1,517,589	3,337,777	Usage from Printer Specs
Product Description	Sitewide 2024-2025 Lbs. Shipped	Emission Factors VOC Wt%	Lbs of VOC. 2024-2025	Max. Expected Ink Usage (Lbs.)	Max Expected VOC (Lbs.)	Max. Potential Sitewide Ink Usage (Lbs.)	Max Potential Sitewide
pH ADJUSTER	57,555.00	0.000	0.00	406,076	0.00	893,120	0.00
X412 SILICONE BLEND	450.00	0.090	0.41	3,175	2.86	6,983	6.28
STARBRITE EXTENDER VARNISH	180.00	3.426	6.17	1,270	43.51	2,793	95.71
PROPYLENE GLYCOL	450.00	100.000	450.00	3,175	3,174.95	6,983	6982.96
ISOPROPYL ALCOHOL 99%	90.00	100.000	90.00	635	634.99	1,397	1396.59
N-PROPYL ACETATE	30.00	100.000	30.00	212	211.66	465	465.53
VIOLET DISPERSION	874.00	0.440	3.85	6,166	27.13	13,562	59.67
LOW CONDUCTIVITY BLACK BASE	9,000.00	0.000	0.00	63,499	0.00	139,659	0.00
INKSPERSE II YS ORANGE	6,300.00	0.000	0.00	44,449	0.00	97,761	0.00
ECO-ICE INK CLEANER EMULSIFIER	7,200.00	0.000	0.00	50,799	0.00	111,727	0.00
MIXING DEFOAMER	280.00	78.999	221.20	1,976	1,560.64	4,345	3432.47
OPTICAL BRIGHTENER SOLUTION	8.00	0.000	0.00	56	0.00	124	0.00
FNS DEFOAMER	140.00	0.000	0.00	988	0.00	2,172	0.00
INKSPERSE II PLUS BLUE 15.3	11,250.00	0.000	0.00	79,374	0.00	174,574	0.00
INKSPERSE II PLUS RED 81.3	450.00	0.025	0.11	3,175	0.79	6,983	1.75
INKSPERSE II PLUS GREEN 7	4,500.00	0.000	0.00	31,749	0.00	69,830	0.00
INKSPERSE II PLUS RUBINE RED 57	7,200.00	0.000	0.00	50,799	0.00	111,727	0.00
INKSPERSE II PLUS YELLOW 14	6,750.00	0.000	0.00	47,624	0.00	104,744	0.00
INKSPERSE II PLUS RED 22	4,638.00	0.000	0.00	32,723	0.00	71,971	0.00
INKSPERSE II PLUS RED 164	4,500.00	0.000	0.00	31,749	0.00	69,830	0.00
INKSPERSE II PLUS CAPS VIOLET 23	9,000.00	0.000	0.00	63,499	0.00	139,659	0.00
INK3hr DISPENSER WHITE	1,000.00	0.078	0.78	7,055	5.50	15,518	12.10
INK3hr POLY CUP EXTENDER DV51190	83,250.00	0.227	189.15	587,365	1,334.49	1,291,847	2935.08
Total Inks (Lbs.)	215,095.00		991.67	1,517,589	6,996.54	3,337,777	15,388.14
Current Average Ink VOC % = 0.461				Ink VOC PTE at current color i		3.50	
				Ink VOC PTE if use 1.0 %		15,176	
Coating (assume 1/3 since 1 printer has a coating station and 4 :1 coating to ink ratio)				coating w/ 1.37 % VOC	coating isn't currently used in cups	4,450,369	60,970.05
				VOC PTE Printers (TPY)=		7.59	Project VOC PTE (TPY) =
							47.17

New FI PRINTERS (2) COMBUSTION EMISSIONS /PTE

Emission Source	Comexi Printer FI Printer Dryer (SOURCE IDs Comexi 10 & 15)						
Rated Heat Input Capacity(1)	565		cf/hr				
Maximum Hours of Operation	8760		hours/year				
Fuel	Primary Natural Gas						
Max Fuel (cf/yr)	4,949,400						
Pollutant	Natural Gas Emission Factor(2) (lb/106 scf)	Natural Gas Potential Emissions (tpy)	#/day	#/hr			
Nox	100	0.25	1.36	0.06			
CO	84	0.21	1.14	0.05			
PM	7.6	0.02	0.10	0.0043			
SO2(4)	0.6	0.00	0.01	0.0003			
VOC	5.5	0.01	0.07	0.0031			
Lead(5)	0.0005	0.00	0.00	0.000003			
PM2.5	7.6	0.02	0.103056	0.004294			
PM cond	5.7	0.01	0.077232	0.0032205			
PM10	7.6	0.02	0.103056	0.004294			
Pollutant	Global Warming Potentials	Natural Gas Emission Factor(6,7) kg/MMBtu	Natural Gas Potential Emissions (Metric Tons)	Natural Gas CO2e (Metric Tons)	US tons	#/hr	
CO2	1	66.88	337.64			84.7944768	
CH4	28	0.00	0.01	337.91	372.38	0.00126786	
N2O	265	0.00	0.00			0.00012679	
					85.0178726		
Notes:							
(1) Information provided from manufacturer specification sheet.							
(2) AP-42 Section 14 (07/1998), Table 14-1 and 14-2, Emission Factors from Natural Gas Combustion.							
(6) CO2 emission factors from 40 CFR Part 98 Subpart C Table C-1, Default CO2 Emission Factors for Various Types of Fuel							
(7) CH4 and N2O emission factors from 40 CFR Part 98 Subpart C Table C-2 Default CH4 and N2O Emission Factors for Various Types of Fuel							

HAP Emissions					
Natural Gas	POLLUTANT	EMISSION FACTOR	UNIT	Emissions (TPY)	
CAS	Benzene	0.0021	lb/106 SCF	5.19687E-06	
71-43-2	Formaldehyde	0.075	lb/106 SCF	0.000185603	
50-00-0	Hexane	1.8	lb/106 SCF	0.00445446	
110-54-3	Naphthalene	0.00061	lb/106 SCF	1.50957E-06	
91-20-3	Toluene	0.0034	lb/106 SCF	8.41398E-06	
108-88-3	Arsenic	0.0002	lb/106 SCF	4.9494E-07	
7440-38-2	Beryllium	0.000012	lb/106 SCF	2.96964E-08	
7440-41-7	Cadmium	0.0011	lb/106 SCF	2.72217E-06	
7440-43-9	Chromium	0.0014	lb/106 SCF	3.46458E-06	
7440-47-3	Cobalt	0.000094	lb/106 SCF	2.07875E-07	
7440-48-4	Manganese	0.00038	lb/106 SCF	9.40386E-07	
7439-97-6	Mercury	0.00026	lb/106 SCF	6.43422E-07	
7440-02-0	Nickel	0.0021	lb/106 SCF	5.19687E-06	
7782-49-2	Selenium	0.000024	lb/106 SCF	5.93928E-08	
Total HAP Emissions (TPY)			HAP Total =	0.004668942	TPY

New F2 PRINTER COMBUSTION EMISSIONS /PTE

Emission Source	Comexi F2 Printer Dryers Source IDs Comexi 16)				
Rated Heat Input Capacity(1)	5650	cf/hr		5.65	MMBTU/hr
Maximum Hours of Operation	8760	hours/year			
Fuel	Primary Natural Gas				
Max Fuel (cf/yr)	49,494,000				
Pollutant	Natural Gas Emission Factor(2) (lb/106 scf)	Natural Gas Potential Emissions (tpy)	#/day	#/hr	
Nox	100	2.47	13.56	0.57	
CO	84	2.08	11.39	0.47	
PM	7.6	0.19	1.03	0.04	
SO2(4)	0.6	0.01	0.08	0.00339	
VOC	5.5	0.14	0.75	0.03	
Lead(5)	0.0005	0.00	0.00	0.0000028	
PM2.5	7.6	0.19	1.03056	0.04294	
PM cond	5.7	0.14	0.77292	0.032205	
PM10	7.6	0.19	1.03056	0.04294	
Pollutant	Global Warming Potentials	Natural Gas Emission Factor(6,7) kg/1MMBtu	Natural Gas Potential Emissions (Metric Tons)	Natural Gas CO2e (Metric Tons)	US tons
CO2	1	66.88	3376.36		
CH4	28	0.00	0.05	3379.11	3,723.78
N2O	265	0.00	0.01		
					850.1787258
Notes:					
(1) Information provided from manufacturer specification sheet					
(2) AP-42 Section 14 (07/1998), Table 14-1 and 14-2, Emission Factors from Natural Gas Combustion.					
(6) CO2 emission factors from 40 CFR Part 98 Subpart C Table C-1, Default Co2 Emission Factors for Various Types of Fuel					
(7) CH4 and N2O emission factors from 40 CFR Part 98 Subpart C Table C-2 Default CH4 and N2O Emission Factors for Various Types of Fuel					

HAP Emissions				
Natural Gas				
CAS	POLLUTANT	EMISSION FACTOR	UNIT	Emissions (TPY)
71-43-2	Benzene	0.0021	lb/106 SCF	5.19687E-05
50-00-0	Formaldehyde	0.075	lb/106 SCF	0.001856025
110-54-3	Hexane	1.8	lb/106 SCF	0.0445446
91-20-3	Naphthalene	0.00061	lb/106 SCF	1.50957E-05
108-88-3	Toluene	0.0034	lb/106 SCF	8.41398E-05
7440-38-2	Arsenic	0.0002	lb/106 SCF	4.9494E-06
7440-41-7	Beryllium	0.000012	lb/106 SCF	2.96964E-07
7440-43-9	Cadmium	0.0011	lb/106 SCF	2.72217E-05
7440-47-3	Chromium	0.0014	lb/106 SCF	3.46458E-05
7440-48-4	Cobalt	0.000084	lb/106 SCF	2.07875E-06
7439-96-5	Manganese	0.00038	lb/106 SCF	9.40386E-06
7439-97-6	Mercury	0.00026	lb/106 SCF	6.43422E-06
7440-02-0	Nickel	0.0021	lb/106 SCF	5.19687E-05
7782-49-2	Selenium	0.000024	lb/106 SCF	5.93928E-07
Total HAP Emissions (TPY)			HAP PTE (TPY)=	0.046689422

n Factors from EPA WebFire SCC 102200603

All THREE NEW PRINTER COMBUSTION EMISSIONS/PTE (Premise Wide)

Since all the existing printers are being removed the PTE of the 3 new units will be the premise /site wide PTE

Total PTE #/hr - Combustion Totals - 3 Dryers			
	PTE TPY	PTE #/day	PTE #/hr
Nox	2.97	16.27	0.68
CO	2.49	13.67	0.57
PM	0.23	1.24	0.05
SO2(4)	0.02	0.10	0.00
VOC	0.16	0.89	0.04
Lead(5)	0.00	0.00	0.00
PM2.5	0.23	1.24	0.05
PM10	0.23	1.24	0.05
HAP	0.06	0.31	0.01279

Appendix D - TAP Demonstration at Expected Ink Usage

Site Wide TAP Compliance Screening – Test 1 – Simple Screen

Maximum Hourly Toxic Emissions at Maximum hourly Ink and Coating Usage

Determination of Maximum Hour

Sitewide Maximum Hourly Ink Usage (lbs/hr)
384.98
max production for 3 new printers

Corresponding Maximum Production @ 100 capacity (lbs/hr)
3,337,776.00

Product Code	Product Description	Sitewide 2024-2025 Lbs. Shipped	Maximum Hourly Usage (lbs/hr)		Diethanolamine Wt %	Diethanolamine Lbs/hr	Ethylbenzene Wt %	Ethylbenzene Lbs/hr	Glycol Ethers Wt %	Glycol Ethers Lbs/hr	Hexachlorobenzene Wt %	Hexachlorobenzene Lbs/hr
					111-42-2		100-41-4		varies		115-74-1	
1011536	X412 SILICONE BLEND	450.00	1.10		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1014076	STARBRITE EXTENDER VARNISH	180.00	0.44		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1017104	PROPYLENE GLYCOL	450.00	1.10		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1017105	ISOPROPYL ALCOHOL 99%	90.00	0.22		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1062733	N-PROPYL ACETATE	30.00	0.07		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1062849	VIOLET DISPERSION	874.00	2.14		0.0000%	0	0.0000%	0.00	0.4400%	0.01	0.0000%	0.0000
1296138	LOW CONDUCTIVITY BLACK BASE	9,000.00	21.59		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1354441	INKSPERSE II VS ORANGE	6,300.00	15.40		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1389576	ECO-ICE INK CLEANER EMULSIFIER	7,200.00	17.59		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1457959	MIXING DEFOAMER	280.00	0.68		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1459038	OPTICAL BRIGHTENER SOLUTION	8.00	0.02		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1476993	FNS DEFOAMER	140.00	0.34		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1534494	INKSPERSE II PLUS BLUE 15:3	11,250.00	27.49		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1534496	INKSPERSE II PLUS RED 81:3	450.00	1.10		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1534497	INKSPERSE II PLUS GREEN 7	4,500.00	11.00		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1534498	INKSPERSE II PLUS RUBINE RED 57	7,200.00	17.59		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1534499	INKSPERSE II PLUS YELLOW 14	6,750.00	16.49		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1534501	INKSPERSE II PLUS RED 22	4,500.00	11.23		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1534505	INKSPERSE II PLUS RED 184	4,500.00	11.00		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1534515	INKSPERSE II PLUS CARB VIOLET 23	9,000.00	21.59		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1535625	INKING DISPENSER WHITE	1,000.00	2.44		0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
1536372	INKING POLY CUP EXTENDER DV51190	83,250.00	203.44	VOC	0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.0000
	Ink Totals (lb/hr)	557,545.00	384.98	3.85	0.0000%	0.000000000	0.0000%	0.0000	0.0024%	0.00940	0.0000%	0.00000
1011284	Coating at 4:1 ratio (lb/hr) and 1 printer pH ADJUSTER	57,555.00	140.65	7.32	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
	Site Wide Hourly Totals			11.17		0.000000000		0.0000		0.0094		0.00000
	Per Printer Values lbs/hr					0.0000		0.0000		0.0031		0.0000

Volatiles at Max Printer Capacity and 100 % coverage

Sitewide Maximum Hourly Ink Usage (lbs/hr)
384.98
max production for 3 new printers

Corresponding Maximum Production @ 100 capacity (lbs/hr)
3,337,776.00

Product Code	Product Description	Sitewide 2024-2025 Lbs. Shipped	Maximum Hourly Usage (lbs/hr)	Perchloroethylene Wt %	Perchloroethylene Lbs/hr	Concentration of Copper Wt %	Concentration of Copper Lbs/hr	Thiuron Thiuron Wt %	Thiuron Thiuron Lbs/hr	BENZOTHIADIAZOL- YDIPYRONE Wt %	BENZOTHIADIAZOL- YDIPYRONE Lbs/hr	ETHANOL, DIS- SOLVENTS Wt %	ETHANOL, DIS- SOLVENTS Lbs/hr	DIPROPYLENE GLYCOL, METHYL ETHER Wt %	DIPROPYLENE GLYCOL, METHYL ETHER Lbs/hr	ETHANOLAMINE BASE Wt %	ETHANOLAMINE BASE Lbs/hr	CYAN- URYL Wt %	CYAN- URYL Lbs/hr
				87-86-5				100-51-7		200-33-6		110-34-6		5000-80-0		101-43-6		800-47-6	
1011536	X412 SILICONE BLEND	450.00	1.10	0.0000%	0.00	0.0000%	0.00	0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1014076	STARBRITE EXTENDER VARNISH	180.00	0.44	0.0000%	0.00	0.0000%	0.00	0.0000%	0	0.0000%	0.00	0.0000%	0.00	3.2259%	0.01	0.4809%	0.00	0.0000%	0.00
1017104	PROPYLENE GLYCOL	450.00	1.10	0.0000%	0.00	0.0000%	0.00	0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1017105	ISOPROPYL ALCOHOL 99%	90.00	0.22	0.0000%	0.00	0.0000%	0.00	0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1062733	N-PROPYL ACETATE	30.00	0.07	0.0000%	0.00	0.0000%	0.00	0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1062849	VIOLET DISPERSION	874.00	2.14	0.0000%	0.00	0.0000%	0.00	0.0000%	0	0.8500%	0.00	1.8000%	0.02	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1296138	LOW CONDUCTIVITY BLACK BASE	9,000.00	21.59	0.0000%	0.00	0.0000%	0.00	0.0000%	0	0.8500%	0.01	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1354441	INKSPERSE II VS ORANGE	6,300.00	15.40	0.0000%	0.00	0.0000%	0.00	0.0000%	0	0.8500%	0.01	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1389576	ECO-ICE INK CLEANER EMULSIFIER	7,200.00	17.59	0.0000%	0.00	0.0000%	0.00	0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1457959	MIXING DEFOAMER	280.00	0.68	0.0000%	0.00	0.0000%	0.00	0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	50.0%	0.34
1459038	OPTICAL BRIGHTENER SOLUTION	8.00	0.02	0.0000%	0.00	0.0000%	0.00	0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1476993	FNS DEFOAMER	140.00	0.34	0.0000%	0.00	0.0000%	0.00	0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1534494	INKSPERSE II PLUS BLUE 15:3	11,250.00	27.49	0.0000%	0.00	96.8999%	13.75	0.0000%	0	0.8500%	0.01	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1534496	INKSPERSE II PLUS RED 81:3	450.00	1.10	0.0000%	0.00	0.0000%	0.00	0.0000%	0	0.8500%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1534497	INKSPERSE II PLUS GREEN 7	4,500.00	11.00	0.0000%	0.00	96.8999%	5.50	0.0000%	0	0.8500%	0.01	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1534498	INKSPERSE II PLUS RUBINE RED 57	7,200.00	17.59	0.0000%	0.00	0.0000%	0.00	0.0000%	0	0.8500%	0.01	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1534499	INKSPERSE II PLUS YELLOW 14	6,750.00	16.49	0.0000%	0.00	0.0000%	0.00	0.0000%	0	0.8500%	0.01	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1534501	INKSPERSE II PLUS RED 22	4,500.00	11.23	0.0000%	0.00	0.0000%	0.00	0.0000%	0	0.8500%	0.01	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1534505	INKSPERSE II PLUS RED 184	4,500.00	11.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0	0.8500%	0.01	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1534515	INKSPERSE II PLUS CARB VIOLET 23	9,000.00	21.59	0.0000%	0.00	0.0000%	0.00	0.0000%	0	0.8500%	0.01	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1535625	INKING DISPENSER WHITE	1,000.00	2.44	0.0000%	0.00	50.0000%	1,221.946419	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1536372	INKING POLY CUP EXTENDER DV51190	83,250.00	203.44	0.0000%	0.00	0.0000%	0.00	0.0000%	0	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
	Ink Totals (lb/hr)	384.98		0.0000%	0.00000	4.099%	13.2441	0.3774%	1.2218	0.0001%	0.00788	0.0001%	0.00214	0.0007%	0.0142	0.0009%	0.0018	0.0009%	0.3421
1011284	Coating at 4:1 ratio (lb/hr) and 1 printer pH ADJUSTER	57,555.00	140.65	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
	Site Wide Hourly Totals			0.00000		19.2441		1.2218		0.0788		0.0214		0.0142		0.0018		0.3421	
	Per Printer Values lbs/hr					6.4147		0.4073		0.0263		0.0071		0.0047		0.0006		0.1140	

Sitewide Maximum Hourly Ink Usage (lbs/hr)
384.98
max production for 3 new printers

Corresponding Maximum Production @ 100 capacity (lbs/yr)
3,337,776.80

Product Code	Product Description	Sitewide 2024-2025 Lbs. Shipped	Maximum Hourly Usage (lbs/hr)	Carbon Black Wt %	Carbon Black Lbs/hr	Ammonium Hydroxide Wt %	Ammonium Hydroxide Lbs/hr	Styrene Wt %	Styrene Lbs./hr	IPA wt %	IPA wt/hr	N-Propyl Acetate wt %	N-Propyl Acetate Lbs/hr
				1333-88-4		1336-21-8		100-42-6		87-85-0		108-90-4	
1011536	X412 SILICONE BLEND	450.00	1.10	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1014076	STARBRITE EXTENDER VARNISH	180.00	0.44	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1017104	PROPYLENE GLYCOL	450.00	1.10	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1017105	ISOPROPYL ALCOHOL 99%	90.00	0.22	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	100.0000%	0.22	0.0000%	0.00
1062733	N-PROPYL ACETATE	30.00	0.07	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	#####	0.07
1062849	VIOLET DISPERSION	874.00	2.14	0.0000%	0.00	3.0000%	0.06	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1286138	LOW CONDUCTIVITY BLACK BASE	9,000.00	21.99	50.0%	11.00	3.0000%	0.07	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1359441	INKSPERSE II VS ORANGE	6,300.00	15.40	0.0000%	0.00	1.0000%	0.15	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1389576	ECO-ICE INK CLEANER EMULSIFIER	7,200.00	17.59	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1457959	MIXING DEFORMER	280.00	0.68	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1459038	OPTICAL BRIGHTENER SOLUTION	8.00	0.02	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1476993	FNS DEFORMER	140.00	0.34	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1534494	INKSPERSE II PLUS BLUE 15:3	11,250.00	27.49	0.0000%	0.00	3.0000%	0.08	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1534496	INKSPERSE II PLUS RED 8:1:3	450.00	1.10	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1534497	INKSPERSE II PLUS GREEN 7	4,500.00	11.00	0.0000%	0.00	3.0000%	0.03	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1534498	INKSPERSE II PLUS RUBINE RED 5:7	7,200.00	17.59	0.0000%	0.00	3.0000%	0.05	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1534499	INKSPERSE II PLUS YELLOW 14	6,750.00	16.49	0.0000%	0.00	3.0000%	0.05	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1534503	INKSPERSE II PLUS RED 2:2	4,638.00	11.33	0.0000%	0.00	3.0000%	0.03	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1534505	INKSPERSE II PLUS RED 18:4	4,500.00	11.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1534515	INKSPERSE II PLUS CARB VIOLET 2:3	9,000.00	21.99	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1535625	INKHrc DISPENSER WHITE	1,000.00	2.44	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
1536372	INKHrc POLY CUP EXTENDER DVS1190	83,250.00	203.44	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
Ink Totals (lb/hr)		384.98		2.6564%	10.9966	0.139%	0.5357	0.0000%	0.0000	0.0571%	0.2199	0.0190%	0.0733
1011284													
1011284	Coating at 4:1 ratio (lb/hr) and 1 printer pH ADJUSTER	57,555.00	140.65	0.0000%	0.00	0.0000%	0.00	0.0050%	0.03	0.0000%	0.00	0.0000%	0.00
1011284						8.5000%	11.95	0.0000%	0.00	0.0000%	0.00	0.0000%	0.00
Site Wide Hourly Totals					10.9966		12.4907		0.0265		0.2199		0.0733
Per Printer Values lbs/hr					3.6655		4.1636		0.0088		0.0733		0.0244

Coating HAP-PTE
0.1159/2108 TPY

Back Calculate Amount of pH Adjuster that can be used at Max Ink Usage and still comply with toxic regulations/screening levels for Ammonium Hydroxide

6.65 1/yr limit of ammonium hydroxide Solo/Dart willing to accept

0.536 Ink contributions at max ink usage rates

6.114 amount from H that can come from pH adjuster if ink at max usage

71.93 Amount of pH adjuster that can be used each hour at max ink usage rates

78.24 Maximum amount of pH adjuster that can be used each hour if no ink is being used

Summary of Toxic hourly and annual Emissions

Maximum Emissions/PTE			
Since existing printers are being removed new printer total is site total			
CAS	NAME	Total Premise Wide Emissions (#/hr)	TOTALS FROM NEW PRINTERS/PREMISES WIDE(lbs/yr)
111422	DIETHANOLAMINE	0	0.0000
100414	ETHYL BENZENE	0	0.0000
118741	HEXACHLOROBENZENE	0	0.0000
87865	PENTACHLOROPHENOL	0	0.0000
7664417	AMMONIA	0	0.0000
67630	ISOPROPYL ALCOHOL	0.219932716	1,926.6106
109604	N-PROPYL ACETATE	0.073310905	642.2035
1317802	Titanium Dioxide	1.221848419	10,703.3922
147148	COPPER PHTHALOCYANINE	19.24411261	168,578.4264
2634335	BENZISOTHAZOL-3(2H)-ONE	0.078762793	689.9621
112345	ETHANOL, 2-(2-BUTOXYETHOXY)-	0.02135791	187.0953
34590948	DIPROPYLENE GLYCOL METHYL ETHER	0.01418566	124.2664
141435	ETHANOLAMINE	0.001759462	15.4129
8042475	Oil Mist, mineral	0.342117557	2,996.9498
1333864	CARBON BLACK	10.99663578	96,330.5294
1336216	AMMONIUM HYDROXIDE	12.49073402	109,418.8300
100425	STYRENE	0.026466	231.8422
Note: Ink Totals are based on max ink thorough 3 new printers			
Coating usage is not expected for most print jobs so assumed 25 % usage and will take a annual limit			

- Titanium Dioxide, Copper Compounds, Carbon Black were not screened – these ingredients are solids in the recipe and are not expected to produce air emissions.

Maryland ESL Screening Levels for Toxics in Ink and Coating

Maryland ESL Screening Levels (from 2012 revised -TAP-Screening list from Matthew Hafer Maryland DEQ					
CAS	NAME	1-hour (ug/m3)	8-hour (ug/m3)	ANNUAL (ug/m3)	COMAR 26.11.16
111422	DIETHANOLAMINE		10.0000		07B
100414	ETHYL BENZENE		868.3845		07B
118741	HEXACHLOROBENZENE		0.0200	2.00E-03	06B
87865	PENTACHLOROPHENOL		5.0000		07B
7664417	AMMONIA	243.78	174.1309		07B/09A
67630	ISOPROPYL ALCOHOL	9830.67	4915.3374		07B
109604	N-PROPYL ACETATE	10442.74	8354.1922		
1317802	Titanium Dioxide		100.0000		
147148	COPPER PHTHALOCYANINE		615.0000		
2634335	BENZISOTHAZOL-3(2H)-ONE		16.1000		
112345	ETHANOL, 2-(2-BUTOXYETHOXY)-		33.6000		
34590948	DIPROPYLENE GLYCOL METHYL ETHER	9092.02	12122.6994		
141435	ETHANOLAMINE	150.00	80.0000		
8042475	Oil Mist, mineral				
1333864	CARBON BLACK		30.0000		
1336216	AMMONIUM HYDROXIDE	501.74	358.3845		
100425	STYRENE	1704.05	852.0245		07B

COMAR 26.11.16.02 Test 1 – Allowable Emissions Versus PTE Emissions

CAS	NAME	Total Premise Max #/hr	Allowable Emission Rate (lbs/hr) - 1 hour	AER (lbs/hr) - 8 hr	AER (lbs/yr) - Annual
111422	DIETHANOLAMINE	0.00000		0.04	
100414	ETHYL BENZENE	0.00000		3.11	
118741	HEXACHLOROBENZENE	0.00000		0.00	0.73
87865	PENTACHLOROPHENOL	0.00000		0.02	
67630	ISOPROPYL ALCOHOL	0.21993	35.19	17.60	
109604	N-PROPYL ACETATE	0.07331	37.39	29.91	
1317802	Titanium Dioxide	1.22185		0.36	*
147148	COPPER PHTHALOCYANINE	19.24411		2.20	*
2634335	BENZISOTHAZOL-3(2H)-ONE	0.07876		0.06	
112345	ETHANOL, 2-(2-BUTOXYETHOXY)-	0.02136		0.12	
34590948	DIPROPYLENE GLYCOL METHYL ETHER	0.01419	32.55	43.40	
141435	ETHANOLAMINE	0.00176	0.54	0.29	
8042475	Oil Mist, mineral	0.34212			
1333864	CARBON BLACK	10.99664		0.11	*
1336216	AMMONIUM HYDROXIDE	12.49073	1.80	1.28	
100425	STYRENE	0.02647	6.10	3.05	

- Titanium Dioxide, Copper Compounds, Carbon Black were not screened – these ingredients are solids in the recipe and are not expected to produce air emissions.
- Ammonium Hydroxide emissions which had an hourly PTE of 12.49 #/hr exceeded the Test 1 allowable values of 1.80 #/hr so SCREEN3 modelling was completed
 - The SCREEN3 modelling, see info in Appendix E, showed that the ammonium emissions were too high, so Dart/Solo is willing to take an hourly limit of 6.65 #/hr of ammonium hydroxide usage
 - This would mean that no more than 71.93 # of pH Adjuster could be used in any hour that ink is being used at maximum rates
 - If ink usage is lower the pH Adjuster usage could increase all the way to 78.24 #/hr

Back Calculate Amount of pH Adjuster that can be used at Max Ink Usage and still comply with toxic regulations/screening levels for Ammonium Hydroxide		
6.65	#/hr limit of ammonium hydroxide Solo/Dart willing to accept	
0.536	ink contributions at max ink usage rates	
6.114	amount from AH that can come from pH adjuster if ink at max usage	
71.93	Amount of pH adjuster that can be used each hour at max ink usage rates	
78.24	Maximum amount of pH adjuster that can be used each hour if no ink is being used	

Appendix E – Screen3 Run for Ammonium Hydroxide

SCREEN3 OUTPUTS FOR THOSE CHEMICALS THAT DID NOT PASS SIMPLE CHART SCREENING ANALYSIS

Parameters and assumptions used for SCREEN3 Runs

Basis:

- All Maryland Toxics and HAPs that were indicated as present on SDS and tech sheets from the ink and coating supplier were annualized at the worst-case permit limits.
- Screen3 runs were used to address the following chemicals that did not pass the simple screen calculations or qualify for the small quantity exemption:
 - Ammonia Hydroxide (CAS #: 1336-21-6)
 - Benisothiazol-3(2H)-One (cas # 2634-33-5)
- Screening was not done for the following constituents due to the ingredients being solid and not expected to produce air emissions:
 - Titanium Dioxide (CAS #: 1317802)
 - Copper Compounds (CAS # 147148)
 - Carbon Black (CAS # 1333864)
- Use point source since all dryer/printer emissions are released through a stack(s) that vents through the roof
- Building ht = 8.6614 m, building width = 183 m, building length = 195 m
- All stacks are vent through roof so use 10.8 m release height for modelling
- Assumed all emission went through the stack with the lowest velocity which is approximately 8.48 m/s and .6 m diameter for model run to represent worst case impact
- Use simple Terrain with no receptors above stack height
- Dryer stack temperatures are 393K
- Flat terrain so assume receptor height is 0.
- Closest stack is located 300 ft. or 91.44 meters from property line, so run impact grid from 91.4m – 1,000m
- Emission rate for benisothiazol-3(2H)-one Screen3 output is .00992 gr/sec
- Emission rates for the ammonium hydroxide Screen3 Outputs are based on a limitation of 6.65 lb./hour (.84 gr/sec) ammonium hydroxide to ensure TAP Compliance. Dart will limit ammonia emissions to this limit.

Benisothiazol-3(2H)-One (CAS # 2635-33-5) @ 0.00992 gr/sec versus 5.891 ug/m3 (1-hour) screening level & 4.1237 ug/m3 (8-hour) screening level which is below the 16.1 ug/m3 8 hr limit

***** SCREEN3 MODEL *****

**** VERSION DATED 13043 ****

ENTER TITLE FOR THIS RUN (UP TO 79 CHARACTERS):
Benisothiazol-3(2H)-one

ENTER SOURCE TYPE: P FOR POINT

F FOR FLARE

A FOR AREA

V FOR VOLUME

ALSO ENTER ANY OF THE FOLLOWING OPTIONS ON THE SAME LINE:

N - TO USE THE NON-REGULATORY BUT CONSERVATIVE BRODE 2
MIXING HEIGHT OPTION,

nn.n - TO USE AN ANEMOMETER HEIGHT OTHER THAN THE REGULATORY

(DEFAULT) 10 METER HEIGHT.

SS - TO USE A NON-REGULATORY CAVITY CALCULATION ALTERNATIVE

Example - PN 7.0 SS (entry for a point source)

ENTER SOURCE TYPE AND ANY OF THE ABOVE OPTIONS:

P

ENTER EMISSION RATE (G/S):

.00992

ENTER STACK HEIGHT (M):

10.8

ENTER STACK INSIDE DIAMETER (M):

.6

ENTER STACK GAS EXIT VELOCITY OR FLOW RATE:

OPTION 1 : EXIT VELOCITY (M/S):

DEFAULT - ENTER NUMBER ONLY

OPTION 2 : VOLUME FLOW RATE (M**3/S):

EXAMPLE "VM=20.00"

OPTION 3 : VOLUME FLOW RATE (ACFM):

EXAMPLE "VF=1000.00"

8.480

ENTER STACK GAS EXIT TEMPERATURE (K):

393.15

ENTER AMBIENT AIR TEMPERATURE (USE 293 FOR DEFAULT) (K):

293

ENTER RECEPTOR HEIGHT ABOVE GROUND (FOR FLAGPOLE RECEPTOR) (M):

0

ENTER URBAN/RURAL OPTION (U=URBAN, R=RURAL):

R

CONSIDER BUILDING DOWNWASH IN CALCS? ENTER Y OR N:

Y

ENTER BUILDING HEIGHT (M):

8.6614

ENTER MINIMUM HORIZ BLDG DIMENSION (M):

182.87

ENTER MAXIMUM HORIZ BLDG DIMENSION (M):

195.377

USE COMPLEX TERRAIN SCREEN FOR TERRAIN ABOVE STACK HEIGHT?

ENTER Y OR N:

N

USE SIMPLE TERRAIN SCREEN WITH TERRAIN ABOVE STACK BASE?

ENTER Y OR N:

N

ENTER CHOICE OF METEOROLOGY;

1 - FULL METEOROLOGY (ALL STABILITIES & WIND SPEEDS)

2 - INPUT SINGLE STABILITY CLASS

3 - INPUT SINGLE STABILITY CLASS AND WIND SPEED

1

USE AUTOMATED DISTANCE ARRAY? ENTER Y OR N:

Y

ENTER MIN AND MAX DISTANCES TO USE (M):

91

1000

*** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING
DISTANCES ***

DIST (M)	CONC (UG/M**3)		U10M STAB	MIX (M/S)	HT (M/S)	PLUME (M)	SIGMA HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
91.	5.891	6	4.0	4.2	10000.0	13.11	3.73	7.51	SS	
100.	5.105	6	4.0	4.2	10000.0	13.50	4.07	7.64	SS	
200.	2.512	4	3.5	3.5	1120.0	13.39	15.56	11.28	SS	
300.	1.889	4	3.0	3.0	960.0	14.74	22.61	14.05	SS	
400.	1.514	4	2.5	2.5	800.0	16.97	29.45	16.76	SS	
500.	1.252	4	2.0	2.0	640.0	20.79	36.15	19.22	SS	
600.	1.062	4	2.0	2.0	640.0	20.79	42.72	22.11	SS	
700.	0.9109	4	1.5	1.5	480.0	27.63	49.19	24.18	SS	
800.	0.8215	4	1.5	1.5	480.0	27.63	55.57	26.93	SS	
900.	0.7349	4	1.5	1.5	480.0	27.63	61.88	29.61	SS	
1000.	0.6909	6	2.5	2.6	10000.0	24.26	33.88	15.72	SS	

ITERATING TO FIND MAXIMUM CONCENTRATION . . .

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 91. M:

91. 5.891 6 4.0 4.2 10000.0 13.11 3.73 7.51 SS

USE DISCRETE DISTANCES? ENTER Y OR N:

Ammonia Hydroxide (CAS # 1336-21-6) @ 0.84 gr/sec versus 501.738 (1-hour) screening level & 358.3845 (8-hour) screening level which is below the

***** SCREEN3 MODEL *****

**** VERSION DATED 13043 ****

ENTER TITLE FOR THIS RUN (UP TO 79 CHARACTERS):

Federalsburg 3 replacement printer project

ENTER SOURCE TYPE: P FOR POINT

F FOR FLARE

A FOR AREA

V FOR VOLUME

ALSO ENTER ANY OF THE FOLLOWING OPTIONS ON THE SAME LINE:

N - TO USE THE NON-REGULATORY BUT CONSERVATIVE BRODE 2

MIXING HEIGHT OPTION,

nn.n - TO USE AN ANEMOMETER HEIGHT OTHER THAN THE REGULATORY
(DEFAULT) 10 METER HEIGHT.

SS - TO USE A NON-REGULATORY CAVITY CALCULATION ALTERNATIVE

Example - PN 7.0 SS (entry for a point source)

ENTER SOURCE TYPE AND ANY OF THE ABOVE OPTIONS:

P

ENTER EMISSION RATE (G/S):

.84

ENTER STACK HEIGHT (M):

10.8

ENTER STACK INSIDE DIAMETER (M):

.6

ENTER STACK GAS EXIT VELOCITY OR FLOW RATE:

OPTION 1 : EXIT VELOCITY (M/S):

DEFAULT - ENTER NUMBER ONLY

OPTION 2 : VOLUME FLOW RATE (M**3/S):

EXAMPLE "VM=20.00"

OPTION 3 : VOLUME FLOW RATE (ACFM):

EXAMPLE "VF=1000.00"

8.480

ENTER STACK GAS EXIT TEMPERATURE (K):

393.15

ENTER AMBIENT AIR TEMPERATURE (USE 293 FOR DEFAULT) (K):
 293
 ENTER RECEPTOR HEIGHT ABOVE GROUND (FOR FLAGPOLE RECEPTOR) (M):
 0
 ENTER URBAN/RURAL OPTION (U=URBAN, R=RURAL):
 R
 CONSIDER BUILDING DOWNWASH IN CALCS? ENTER Y OR N:
 Y
 ENTER BUILDING HEIGHT (M):
 8.6614
 ENTER MINIMUM HORIZ BLDG DIMENSION (M):
 182.87
 ENTER MAXIMUM HORIZ BLDG DIMENSION (M):
 195.377
 USE COMPLEX TERRAIN SCREEN FOR TERRAIN ABOVE STACK HEIGHT?
 ENTER Y OR N:
 N
 USE SIMPLE TERRAIN SCREEN WITH TERRAIN ABOVE STACK BASE?
 ENTER Y OR N:
 N
 ENTER CHOICE OF METEOROLOGY;
 1 - FULL METEOROLOGY (ALL STABILITIES & WIND SPEEDS)
 2 - INPUT SINGLE STABILITY CLASS
 3 - INPUT SINGLE STABILITY CLASS AND WIND SPEED
 1
 USE AUTOMATED DISTANCE ARRAY? ENTER Y OR N:
 Y
 ENTER MIN AND MAX DISTANCES TO USE (M):
 91
 1000

 *** SCREEN AUTOMATED DISTANCES ***

 *** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	U10M STAB	MIX (M/S)	HT (M/S)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
91.	498.8	6	4.0	4.2	10000.0	13.11	3.73	7.51 SS
100.	432.3	6	4.0	4.2	10000.0	13.50	4.07	7.64 SS
200.	212.7	4	3.5	3.5	1120.0	13.39	15.56	11.28 SS
300.	160.0	4	3.0	3.0	960.0	14.74	22.61	14.05 SS
400.	128.2	4	2.5	2.5	800.0	16.97	29.45	16.76 SS
500.	106.0	4	2.0	2.0	640.0	20.79	36.15	19.22 SS
600.	89.94	4	2.0	2.0	640.0	20.79	42.72	22.11 SS
700.	77.14	4	1.5	1.5	480.0	27.63	49.19	24.18 SS
800.	69.57	4	1.5	1.5	480.0	27.63	55.57	26.93 SS
900.	62.23	4	1.5	1.5	480.0	27.63	61.88	29.61 SS

1000. 58.50 6 2.5 2.6 10000.0 24.26 33.88 15.72 SS
ITERATING TO FIND MAXIMUM CONCENTRATION . . .

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 91. M:

91. 498.8 6 4.0 4.2 10000.0 13.11 3.73 7.51 SS
USE DISCRETE DISTANCES? ENTER Y OR N:

Appendix F - TBACT Determination and Demonstration

T-BACT Discussion and Calculations

Solo has selected a water-based printer to minimize both VOC and TAP/HAP emissions. The analysis below is for the replacement printers and is an update of the 2015 submissions for a similar Comexi Printer TBACT Review.

Basis:

- Water based ink is considered TBACT/BACT by many states and meets LAER since we could not find any sources using WB ink combined with capture and control when we did review of EPA database, competitors permits and state regulations.
- TBACT review will be done using the 3 replacement Comexi Printer total PTE values
- Expected usage is 1,517,589 lbs. /yr which corresponds to 3.5 TPY of VOC and .01 TPY of HAPs assuming no coating is used which is current plan. Ammonia emissions could be as high as 12.85 TPY.
- The PTE is 7.69 TPY if the max ink of 3,337,777 #/yr of ink is used which assumes 100 % utilization and uptime. If coating is ever this value becomes 44.58 TPY . Ammonia emissions will be limited to 6.65 #/hr = 29.127 tons.
- The dryer exhaust rate from the three Comexi printers is approximately 15,072 cfm which would be the minimum capture air for design purposes.
- Assume MW of VOC is 92 lbs./mole as are using IPA as a typical VOC for this determination; LEL is 1.1 % (toluene since in ACA library)
- Water based print is the only option to produce high quality print on a paper surface that will be rolled at the product rates that cups are currently made at. UV print cannot cure fast enough and flakes when the sheets are rolled.
- Ammonia needs to be separated from the VOC portion to make sure Nox limitations can be met so it has to be scrubbed out prior to the destruction device
- EPA estimates the annualized cost to operate packed bed scrubbers averages around \$47.5/scfm (\$17-\$78/scfm) in 2002 dollars (from EPA factsheet # EPA-425/F-03-015)
- The VOC costs are estimated using EPA's control spreadsheet which is based on their ACA models

Ammonia Removal Cost

15,072 cfm scrubber * \$47.5 annual operating cost/cfm = \$715,920/yr.

Annual Cost to control = 715,920 /yr / 12.85 TPY = \$55,713/ton

VOC Toxic DRE Cost

EPA's ACA estimated that the annualized cost of an RTO designed to combust 15,072 cfm of capture air that contains 11 ppm of VOC is \$272,064 in 2024 dollars.

Annual Cost to control = \$272,064 /yr / 7.69 TPY PTE from ink = \$35,378/ton

This simple engineering estimate of annualized control cost combined with the premise that water-based inks are environmentally preferred due to low toxic and low VOC content supports that the use of water-based ink meets Maryland TBACT requirements.

All costs do not address the disposal cost of the scrubber liquid or address the fact that if an RTO is used it would produce NOX and other products of combustion which would offset the benefits of control.

Data Inputs
RESET

Select the type of oxidizer Regenerative Thermal Oxidizer

Enter the following information for your emission source:

Composition of Inlet Gas Stream				
Pollutant Name	Concentration (ppmv)	Lower Explosive Limit (LEL) (ppmv)*	Heat of Combustion (Btu/scf)	Molecular Weight
2-propanol #IPA (CAS 67-63-0)	11	20,000	3,010	60.1

some commonly used VOC/HAP are provided in the table below. In addition, the heat of combustion to be entered in column D is a lower heating value (LHV), not a higher heating value (HHV).

7.5

 tons emission in 2 printer stacks

1.712328767 #/hr capture
 10.52381135 ppm

Enter the design data for the proposed oxidizer:

Number of operating hours/year	8,760
Inlet volumetric flow rate (Q _{in}) at 77°F and 1 atm.	15,072 scfm
Pressure drop (ΔP)	19 inches of water
Motor/fan Efficiency (ε)	60 percent*
Inlet Waste Gas Temperature (T _{in})	100 °F*
Operating Temperature (T _o)	1,900 °F
Destruction and Removal Efficiency (DRE)	99 percent*
Estimated Equipment Life	20 Years*
Heat Loss (η)	1 percent*

Percent Energy Recovery (HRE) Percent

* 19 inches of water is a default pressure drop for thermal oxidizers. User should enter actual value, if known.
 * 60% is a default fan efficiency. User should enter actual value, if known.
 * 100°F is a default temperature. User should enter actual value, if known.
 * Note: Default value for T_o is 2000°F for thermal regenerative oxidizers. Use actual value if known. T_o for regenerative oxidizers typically between 1800 and 2000°F.
 * 99 percent is a default control efficiency. User should enter actual value, if known.
 * 20 years is the typical equipment life. User should enter actual value, if known.
 * 1 percent is a default value for the heat loss. User should enter actual value, if known. Heat loss is typically between 0.2 and 1.5%.

Enter the cost data:

Desired dollar-year	2024
CEPCI* for 2024	8211
Annual Interest Rate (i)	6.50 %
Electricity (Cost _{elec})	0.0641 \$/kWh
Natural Gas Fuel Cost (Cost _{fuel})	0.00351 \$/scf
Operator Labor Rate	\$25.01 per hour
Maintenance Labor rate	\$27.40 per hour
Contingency factor (LF)	1.00 Percent

Enter the CEPCI value for 2024	536.4
2016 CEPCI	

*Enter dollar year first.

* \$0.0415/kWh is a default price for electricity. User should enter actual value, if known.
 * \$0.00351/scf is a default price for natural gas. User should enter actual value, if known.
 * \$25.01 per hour is a default labor rate. User should enter actual value, if known.
 * \$27.40 per hour is a default labor rate. User should enter actual value, if known.
 * 10 percent of the total capital investment F&E is a default value for construction contingency. User may enter values between 5 and 15 percent.

* CEPCI is the Chemical Engineering Plant Cost Escalation/De-escalation Index. The use of CEPCI in this spreadsheet is not an endorsement of the index for purposes of cost escalation or de-escalation, but is there merely to allow for availability of a well-known cost index to spreadsheet users. Use of other well-known cost indexes (e.g., MGS) is acceptable.

Cost Estimate			
Direct Costs			
Total Purchased equipment costs (in 2024 dollars)			
Incinerator + auxiliary equipment* (A) =			
Equipment Costs (EC) for Regenerative Oxidizer	$= (2.204 \times 100,000 + 11.57 \text{ Qtot}) \times (2024 \text{ CEPI}/1999 \text{ CEPCI}) =$		\$730,957 in 2024 dollars
Instrumentation ^a =	$0.10 \times A =$		\$73,096
Sales taxes =	$0.03 \times A =$		\$21,329
Freight =	$0.05 \times A =$		\$36,548
Total Purchased equipment costs (B) =			\$862,529 in 2024 dollars
Footnotes			
a - Auxiliary equipment includes equipment (e.g., duct work) normally not included with unit furnished by incinerator vendor.			
b - Includes the instrumentation and controls furnished by the incinerator vendor.			
Direct Installation Costs (in 2024 dollars)			
Foundations and Supports =	$0.08 \times B =$		\$69,002
Handling and Erection =	$0.14 \times B =$		\$120,754
Electrical =	$0.04 \times B =$		\$34,501
Piping =	$0.02 \times B =$		\$17,251
Insulation for Ductwork =	$0.01 \times B =$		\$8,625
Painting =	$0.01 \times B =$		\$8,625
Site Preparation (SP) =			\$0
Buildings (Bldg) =			\$0
Total Direct Installation Costs =			\$258,759
Total Direct Costs (DC) =	$B + C + SP + Bldg =$		\$1,121,287 in 2024 dollars
Total Indirect Installation Costs (in 2024 dollars)			
Engineering =	$0.10 \times B =$		\$86,253
Construction and field expenses =	$0.05 \times B =$		\$43,126
Contractor fees =	$0.10 \times B =$		\$86,253
Start-up =	$0.02 \times B =$		\$17,251
Performance test =	$0.01 \times B =$		\$8,625
Total Indirect Costs (IC) =			\$241,508
Contingency Cost (C) =	$CF(IC+DC) =$		\$136,280
Total Capital Investment =	$DC + IC + C =$		\$1,499,075 in 2024 dollars

Direct Annual Costs			
Annual Electricity Cost	$= \text{Annual Electricity Usage} \times \text{Operating Hours/year} \times \text{Electricity Price}$		\$31,356
Annual Fuel Costs for Natural Gas	$= \text{Cost}_{\text{fuel}} \times \text{Fuel Usage Rate} \times 60 \text{ min/hr} \times \text{Operating hours/year}$		\$53,499
Operating Labor	$\text{Operator} = 0.5 \text{ hours/shift} \times \text{Labor Rate} \times (\text{Operating hours}/8)$		\$14,569
	$\text{Supervisor} = 15\% \text{ of Operator}$		\$2,185
Maintenance Costs	$\text{Labor} = 0.5 \text{ hours/shift} \times \text{Labor Rate} \times (\text{Operating Hours}/8)$		\$15,002
	$\text{Materials} = 100\% \text{ of maintenance labor}$		\$15,002
Direct Annual Costs (DC) =			\$131,612 in 2024 dollars
Indirect Annual Costs			
Overhead	$= 60\% \text{ of sum of operating, supervisor, maintenance labor and maintenance materials}$		\$28,054
Administrative Charges	$= 2\% \text{ of TCI}$		\$29,981
Property Taxes	$= 1\% \text{ of TCI}$		\$14,991
Insurance	$= 1\% \text{ of TCI}$		\$14,991
Capital Recovery	$= \text{CRF}[\text{TCI}-108(\text{cat. Cost})]$		\$136,051
Indirect Annual Costs (IC) =			\$224,068 in 2024 dollars
Total Annual Cost =	$DC + IC =$		\$355,680 in 2024 dollars

Cost Effectiveness			
Cost Effectiveness = (Total Annual Cost)/(Annual Quantity of VOC/HAP Pollutants Destroyed)			
Total Annual Cost (TAC) =		\$355,680 per year in 2024 dollars	
VOC/HAP Pollutants Destroyed =		6.4 tons/year	
Cost Effectiveness =		\$55,428 per ton of pollutants removed in 2024 dollars	

Appendix G - SDS/TDS of inks and coatings

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1535625
Material Description : INXhrc DISPENSER WHITE
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 34

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 13.83 lb/gal Weight % 1659 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 33.11 %(m) Weight % 55.13 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content 32.2159 %Weight % 53.4784 Volume %
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 0.00 %(m) Weight % 0.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 66.89 %(m) Weight % 44.87 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 0.00 lb/gal 0 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

	CASRN	Weight %	Density (lb/gal)
HAP (if present above 0.1% by weight)			
SARA 313 (if present above SARA 313 de minimis threshold)			
VOC (if present above any regulatory de minimis threshold)			

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

INXhrc DISPENSER WHITE

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : INXhrc DISPENSER WHITE
Product code : 1535625-XFER, 1535625-4130, 1535625-4230, 1535625-2210, 1535625-3421, 1535625-4221, 1535625-5121, 1535625
Product description : Not available.
Product type : liquid
Other means of identification : INXhrc DISPENSER WHITE

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Hours of operation : Not available.
Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Signal word : -
Hazard statements : ..No known significant effects or critical hazards.

Precautionary statements

General : P103:Read carefully and follow all instructions.
P102:Keep out of reach of children.
P101:If medical advice is needed, have product container or label at hand.

Prevention : -:Not applicable.

Response : -:Not applicable.

Storage : -:Not applicable.

Disposal : -:Not applicable.

Supplemental label elements : Contains 2-methyl-2H-isothiazol-3-one, May produce an allergic reaction.
Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.
Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

according to
Regulation (EC) No.
1907/2006, Annex XIII
Other hazards which do : None known.
not result in
classification

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
titanium dioxide	REACH#: 01-2119489379-17-XXXX EC : 236-675-5 CAS : 13463-67-7	>= 25 - <= 50	Not classified.	-	[2]
glycerol	REACH#: Annex V EC : 200-289-5 CAS : 56-81-5	> 0 - <= 3	Not classified.	-	[2]
2-methyl-2H-isothiazol-3-one	EC : 220-239-6 CAS : 2682-20-4	> 0 - < 0,0015	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/kg ATE [Inhalation (vapours)] = 0,5 mg/l Skin Sens. 1A, H317: >= 0,0015 % M [Acute] = 10 M [Chronic] = 1	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

Substance classified with a health or environmental hazard

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any

Version: 1.1

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

Inhalation	:	contact lenses. Get medical attention if irritation occurs. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	:	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, metal oxide/oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8

for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
titanium dioxide	National institute of occupational safety and health (2001-07-01). TWA 10 mg/m3
glycerol	National institute of occupational safety and health (2001-07-01). TWA 10 mg/m3 Form: Mist

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects

Version: 1.1

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

glycerol	DNEL	Long term Inhalation	33 mg/m ³	General population	Local
	DNEL	Long term Oral	229 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	56 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	33 mg/m ³	General population	Local
	DNEL	Long term Oral	229 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	56 mg/m ³	Workers	Local
2-methyl-2H-isothiazol-3-one	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of

protection: safety glasses with side-shields.	
<u>Skin protection</u>	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: liquid
Color	: White.
Odor	: Not available.
Odor threshold	: Not available.
Melting point/freezing point	: Not available.
Initial boiling point and boiling range	: 100,00 °C Not available.
Flammability	: Not available.
Lower and upper explosion limit	: Lower: Not available. Upper: Not available.
Flash point	:
Auto-ignition temperature	: Not Available
Decomposition temperature	: Not available.
pH	: Not available.

Viscosity : **Dynamic** Not available.
: **Kinematic** Not available.
: **Solubility in water** : Not available.
Partition coefficient: n-octanol/water : Not applicable.
Vapor pressure :
Relative density : 1,66
Vapor density : Not available.
Explosive properties : Not available.
Oxidizing properties : Not available.
VOC : 0 %(m)

Particle characteristics

Median particle size : Not applicable.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : No specific data.
- 10.5 Incompatible materials** : No specific data.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
titanium dioxide				
	LD50 Oral	Rat	> 5.000 mg/kg	-
	LD50 Dermal	Rabbit	> 5.000 mg/kg	-
glycerol				

	LD50 Oral	Rat	12.600 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
2-methyl-2H-isothiazol-3-one	500 mg/kg	N/A	N/A	0,5 mg/l	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
glycerol	Skin - Mild irritant	Rabbit	-	24 hrs	-
	Eyes - Mild irritant	Rabbit	-	24 hrs	-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

It has been observed that the carcinogenic hazard of this product arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung.

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-methyl-2H-isothiazol-3-one	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.

11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
titanium dioxide			

Version: 1.1

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

	Acute LC50 > 1.000 mg/l Marine water	Fish - <i>Fundulus heteroclitus</i>	96 h
	Acute LC50 3 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h
	Acute LC50 6,5 mg/l Fresh water	Daphnia - <i>Daphnia pulex</i>	48 h
2-methyl-2H-isothiazol-3-one			
	Acute LC50 0,07 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,18 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
glycerol	-1,76	-	low

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all

Hazardous waste : authorities with jurisdiction.
 : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	-	9006	-	-
14.2 UN proper shipping name	Not regulated.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Not regulated.	Not regulated.
14.3 Transport hazard class(es)	-	9	-	-
14.4 Packing group	-	-	-	-
14.5. Environmental hazards	No.	Yes.	No.	No.

Additional information

ADN : The product is only regulated as a dangerous good when transported in tank vessels.

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

No listed substance

Other EU regulations

Industrial emissions : Not listed
(integrated pollution prevention and control) - Air

Industrial emissions : Not listed
(integrated pollution prevention and control) -
Water

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

Version: 1.1

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) -Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.

United States : Not determined.
Viet Nam : Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008

[CLP/GHS]

Not classified.

Full text of abbreviated H statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Date of printing : 08-22-2025
Date of issue/ Date of revision : 08-22-2025
Date of previous issue : 05-01-2025
Version : 1.1

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither

Version: 1.1 *Date of issue/Date of revision:* 08-22-2025 *Date of previous issue:* 05-01-2025

the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1534494
Material Description : INXSPERSE II PLUS BLUE 15:3
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 33

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 10.10 lb/gal Weight % 1211 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 44.24 %(m) Weight % 53.66 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content 44.0822 %Weight % 53.3395 Volume %
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 0.00 %(m) Weight % 0.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 55.76 %(m) Weight % 46.34 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 0.00 lb/gal 0 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

HAP (if present above 0.1% by weight)	CASRN	Weight %	Density (lb/gal)
SARA 313 (if present above SARA 313 de minimis threshold)	CASRN	Weight %	Density (lb/gal)
VOC (if present above any regulatory de minimis threshold)	CASRN	Weight %	Density (lb/gal)

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

INXSPERSE II PLUS BLUE 15:3

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : INXSPERSE II PLUS BLUE 15:3
Product code : 1534494-4000, 1534494-4130, 1534494-4120, 1534494-5121, 1534494-4230, 1534494-3421, 1534494-2210, 1534494-4221, 1534494
Product description : Not available.
Product type : liquid
Other means of identification : INXSPERSE II PLUS BLUE 15:3

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Hours of operation : Not available.
Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Skin Sens. 1, H317

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H317: May cause an allergic skin reaction.

Precautionary statements

General : P103: Read carefully and follow all instructions.
P102: Keep out of reach of children.
P101: If medical advice is needed, have product container or label at hand.

Prevention : P280: Wear protective gloves.
P261: Avoid breathing vapor.

Response : P362 + P364: Take off contaminated clothing and wash it before reuse.
P302: IF ON SKIN:
P302 + P352: Wash with plenty of water.
P333: If skin irritation or rash occurs:
P333 + P313: Get medical advice or attention.

Storage : -: Not applicable.

Disposal : P501: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Contains : 1,2-benzisothiazol-3(2H)-one
2-methyl-2H-isothiazol-3-one

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain : Not applicable.

**dangerous substances,
mixtures and articles**

Special packaging requirements

Containers to be fitted with : Not applicable.
child-resistant fastenings
Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the : This mixture does not contain any substances that are assessed to be a
criteria for PBT or vPvB PBT or a vPvB.
according to
Regulation (EC) No.
1907/2006, Annex XIII
Other hazards which do : None known.
not result in
classification

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Compounds of Copper	REACH#: 01-2119458771-32-XXXX EC : 205-685-1 CAS : 147-14-8	>= 25 - <= 50	Not classified.	-	[2]
Alcohols, C12-15, ethoxylated	CAS : 68131-39-5	> 0 - <= 3	Aquatic Acute 1, H400	M [Acute] = 1	[1]
ammonia	REACH#: 01-2119488876-14-XXXX EC : 215-647-6 CAS : 1336-21-6 Index:	> 0 - <= 0,3	Skin Corr. 1B, H314 Aquatic Acute 1, H400	M [Acute] = 1	[1]
1,2-benzisothiazol-3(2H)-one	REACH#: 01-2120761540-60-XXXX EC : 220-120-9 CAS : 2634-33-5 Index: 613-088-00-6	> 0 - < 0,05	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 1.020 mg/kg ATE [Inhalation (dusts and mists)] = 0,05 mg/l Skin Sens. 1A, H317: >= 0,05 % M [Acute] = 1 M [Chronic] = 1	[1]
2-methyl-2H-isothiazol-3-one	EC : 220-239-6 CAS : 2682-20-4	> 0 - < 0,01	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT SE 3, H335 (Respiratory tract	ATE [Oral] = 500 mg/kg ATE [Inhalation (vapours)] = 0,5 mg/l Skin Sens. 1A, H317: >= 0,0015 % M [Acute] = 10 M [Chronic] = 1	[1]

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

			irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410		

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

Substance classified with a health or environmental hazard

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following: irritation, redness
Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products : Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, metal oxide/oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency : No action shall be taken involving any personal risk or without

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

- personnel** : suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
 See Section 8 for information on appropriate personal protective equipment.
 See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers

should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Compounds of Copper	National institute of occupational safety and health (2019-02-01). TWA 0,1 mg/m ³ (as Cu) Form: Respirable fraction

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Compounds of Copper	DNEL	Short term	10 mg/m ³	Workers	Local

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

		Inhalation			
	DNEL	Long term Inhalation	10 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	10 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	10 mg/m ³	Workers	Local
Alcohols, C12-15, ethoxylated	DNEL	Long term Oral	25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2080 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	1250 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	294 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	87 mg/m ³	General population	Systemic
	DNEL	Long term Oral	25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2080 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	1250 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	294 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	87 mg/m ³	General population	Systemic
1,2-benzisothiazol-3(2H)-one	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
2-methyl-2H-isothiazol-3-one	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local

	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

- : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection

- : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

- : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

- : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

- : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	liquid
Color	:	Blue.
Odor	:	Not available.
Odor threshold	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	100,00 °C Not available.
Flammability	:	Not available.
Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	Not available.
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	1,21
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	0 %(m)

Particle characteristics

Median particle size : Not applicable.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : No specific data.
- 10.5 Incompatible materials** : No specific data.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Compounds of Copper				
	LD50 Oral	Rat	> 5.000 mg/kg	-
Alcohols, C12-15, ethoxylated				
	LD50 Oral	Rat	2.000 mg/kg	-
ammonia				
	LD50 Oral	Rat	350 mg/kg	-
1,2-benzisothiazol-3(2H)-one				
	LD50 Oral	Rat	1.020 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
1,2-benzisothiazol-3(2H)-one	1020 mg/kg	N/A	N/A	N/A	0,05 mg/l
2-methyl-2H-isothiazol-3-one	500 mg/kg	N/A	N/A	0,5 mg/l	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
ammonia	Eyes - Severe irritant	Rabbit	-	0,008 hrs	-
	Eyes - Severe irritant	Rabbit	-		-
	Eyes - Severe irritant	Rabbit	-		-
1,2-benzisothiazol-3(2H)-one	Skin - Mild irritant	Human	-	48 hrs	-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-methyl-2H-isothiazol-3-one	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact	:	No known significant effects or critical hazards.
Inhalation	:	No known significant effects or critical hazards.
Skin contact	:	May cause an allergic skin reaction.
Ingestion	:	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	Adverse symptoms may include the following: irritation, redness
Ingestion	:	No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.

Long term exposure

Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.

Potential chronic health effects

Conclusion/Summary	:	Not available.
General	:	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Reproductive toxicity	:	No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.

11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Alcohols, C12-15, ethoxylated			
	Acute LC50 1,4 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 h
	Acute EC50 0,39 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h
	Acute EC50 0,302 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Chronic NOEC 0,083 mg/l	Daphnia - <i>Daphnia magna</i>	21 d

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

	Fresh water		
ammonia			
	Acute LC50 37 mg/l Fresh water	Fish - <i>Gambusia affinis</i>	96 h
1,2-benzisothiazol-3(2H)-one			
	Acute LC50 0,167 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,097 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Acute LC50 10 - 20 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h
2-methyl-2H-isothiazol-3-one			
	Acute LC50 0,07 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,18 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Compounds of Copper	6,6	-	high
Alcohols, C12-15, ethoxylated	2,03 - 6,24	-	high

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	-	9006	-	-
14.2 UN proper shipping name	Not regulated.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Not regulated.	Not regulated.
14.3 Transport hazard class(es)	-	9	-	-
14.4 Packing group	-	-	-	-
14.5. Environmental hazards	No.	Yes.	No.	No.

Additional information

ADN : The product is only regulated as a dangerous good when transported in tank vessels.

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]

No listed substance

Other EU regulations

Industrial emissions : Not listed
(integrated pollution prevention and control) - Air

Industrial emissions : Not listed
(integrated pollution prevention and control) -
Water

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Sens. 1, H317	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1

Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Date of printing : 08-22-2025
Date of issue/ Date of revision : 08-22-2025
Date of previous issue : 05-01-2025
Version : 2.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1534515
Material Description : INXSPERSE II PLUS CARB VIOLET 23
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 25

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 9.65 lb/gal Weight % 1157 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 49.44 %(m) Weight % 57.28 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content 49.4131 %Weight % 57.3192 Volume %
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 0.00 %(m) Weight % 0.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 50.56 %(m) Weight % 42.72 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 0.00 lb/gal 0 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

	CASRN	Weight %	Density (lb/gal)
HAP (if present above 0.1% by weight)			
SARA 313 (if present above SARA 313 de minimis threshold)			
VOC (if present above any regulatory de minimis threshold)			

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

INXSPERSE II PLUS CARB VIOLET 23

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : INXSPERSE II PLUS CARB VIOLET 23
Product code : 1534515-4130, 1534515-4230, 1534515-2210, 1534515-3421, 1534515-4221, 1534515
Product description : Not available.
Product type : liquid
Other means of identification : INXSPERSE II PLUS CARB VIOLET 23

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)
Hours of operation : Not available.

Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Sens. 1, H317

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H317: May cause an allergic skin reaction.

Precautionary statements

General : P103: Read carefully and follow all instructions.
P102: Keep out of reach of children.
P101: If medical advice is needed, have product container or label at hand.

Prevention : P280: Wear protective gloves.
P261: Avoid breathing vapor.

Response : P362 + P364: Take off contaminated clothing and wash it before reuse.
P302: IF ON SKIN:
P302 + P352: Wash with plenty of water.
P333: If skin irritation or rash occurs:
P333 + P313: Get medical advice or attention.

Storage : -: Not applicable.

Disposal : P501: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Contains : 1,2-benzisothiazol-3(2H)-one
2-methyl-2H-isothiazol-3-one

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, : Not applicable.

mixtures and articles

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.
Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Alcohols, C12-15, ethoxylated	CAS : 68131-39-5	> 0 - <= 3	Aquatic Acute 1, H400	M [Acute] = 1	[1]
1,2-benzisothiazol-3(2H)-one	REACH#: 01-2120761540-60-XXXX EC : 220-120-9 CAS : 2634-33-5 Index: 613-088-00-6	> 0 - < 0,05	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 1.020 mg/kg ATE [Inhalation (dusts and mists)] = 0,05 mg/l Skin Sens. 1A, H317: >= 0,05 % M [Acute] = 1 M [Chronic] = 1	[1]
2-methyl-2H-isothiazol-3-one	EC : 220-239-6 CAS : 2682-20-4	> 0 - < 0,01	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/kg ATE [Inhalation (vapours)] = 0,5 mg/l Skin Sens. 1A, H317: >= 0,0015 % M [Acute] = 10 M [Chronic] = 1	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

Substance classified with a health or environmental hazard
[1] Substance classified with a health or environmental hazard
Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	:	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	No specific data.

Inhalation	:	No specific data.
Skin contact	:	Adverse symptoms may include the following: irritation, redness
Ingestion	:	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	:	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, halogenated compounds

5.3 Advice for firefighters

Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers.

Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Alcohols, C12-15, ethoxylated	DNEL	Long term Oral	25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2080 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	1250 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	294 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	87 mg/m ³	General population	Systemic
	DNEL	Long term Oral	25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2080 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	1250 mg/kg bw/day	General population	Systemic

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

	DNEL	Long term Inhalation	294 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	87 mg/m ³	General population	Systemic
1,2-benzisothiazol-3(2H)-one	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
2-methyl-2H-isothiazol-3-one	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially

	contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
<u>Skin protection</u>	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: liquid
Color	: Violet.
Odor	: Not available.
Odor threshold	: Not available.
Melting point/freezing point	: Not available.

Initial boiling point and boiling range	:	100,00 °C Not available.
Flammability	:	Not available.
Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	Not available.
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	1,16
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	0 %(m)

Particle characteristics

Median particle size	:	Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.
10.5 Incompatible materials	:	No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Alcohols, C12-15, ethoxylated				
	LD50 Oral	Rat	2.000 mg/kg	-
1,2-benzisothiazol-3(2H)-one				
	LD50 Oral	Rat	1.020 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
1,2-benzisothiazol-3(2H)-one	1020 mg/kg	N/A	N/A	N/A	0,05 mg/l
2-methyl-2H-isothiazol-3-one	500 mg/kg	N/A	N/A	0,5 mg/l	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
1,2-benzisothiazol-3(2H)-one	Skin - Mild irritant	Human	-	48 hrs	-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-methyl-2H-isothiazol-3-one	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following: irritation, redness
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

- 11.2.1 Endocrine disrupting properties** : Not available.
11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Alcohols, C12-15, ethoxylated			
	Acute LC50 1,4 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 h
	Acute EC50 0,39 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h
	Acute EC50 0,302 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Chronic NOEC 0,083 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 d
1,2-benzisothiazol-3(2H)-one			
	Acute LC50 0,167 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,097 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Acute LC50 10 - 20 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h
2-methyl-2H-isothiazol-3-one			
	Acute LC50 0,07 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,18 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Alcohols, C12-15, ethoxylated	2,03 - 6,24	-	high

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.
Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

: Not available.

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	-	9006	-	-
14.2 UN proper shipping name	Not regulated.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Not regulated.	Not regulated.
14.3 Transport hazard class(es)	-	9	-	-

14.4 Packing group	-	-	-	-
14.5. Environmental hazards	No.	Yes.	No.	No.

Additional information

ADN : The product is only regulated as a dangerous good when transported in tank vessels.

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]

No listed substance

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Sens. 1, H317	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Date of printing : 08-22-2025
Date of issue/ Date of revision : 08-22-2025
Date of previous issue : 00-00-0000
Version : 1.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1536372
Material Description : INXhrc POLY CUP EXTENDER DV51190
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate 08/22/2025
Version number : 1 . 33

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 8.47 lb/gal Weight % 1016 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 59.73 %(m) Weight % 60.88 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content 58.0439 %Weight % 59.2048 Volume %
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 0.06 %(m) Weight % 0.07 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 40.27 %(m) Weight % 39.12 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 0.01 lb/gal 1 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

HAP (if present above 0.1% by weight)	CASRN	Weight %	Density (lb/gal)
SARA 313 (if present above SARA 313 de minimis threshold)	CASRN	Weight %	Density (lb/gal)
Ammonium Hydroxide	1336-21-6	1.1225 %	
VOC (if present above any regulatory de minimis threshold)	CASRN	Weight %	Density (lb/gal)

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

INXhrc POLY CUP EXTENDER DV51190

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : INXhrc POLY CUP EXTENDER DV51190
Product code : 1536372-512R, 1536372-4230, 1536372-2210, 1536372-5121, 1536372, 1536372-4221, 1536372-3421
Product description : Not available.
Product type : liquid
Other means of identification : INXhrc POLY CUP EXTENDER DV51190

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)
Hours of operation : Not available.

Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Irrit. 2, H315

Eye Irrit. 2, H319

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H315: Causes skin irritation.
H319: Causes serious eye irritation.

Precautionary statements

General : P103: Read carefully and follow all instructions.
P102: Keep out of reach of children.
P101: If medical advice is needed, have product container or label at hand.

Prevention : P280: Wear protective gloves.
P280: Wear eye or face protection.
P264: Wash thoroughly after handling.

Response : P362 + P364: Take off contaminated clothing and wash it before reuse.
P305: IF IN EYES:
P305 + P351 + P338: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337: If eye irritation persists:
P337 + P313: Get medical advice or attention.

Storage : -: Not applicable.

Disposal : -: Not applicable.

Supplemental label elements : Contains 2,4,7,9-tetramethyldec-5-yne-4,7-diol, 2-methyl-2H-isothiazol-3-one, May produce an allergic reaction.

Annex XVII - Restrictions on the manufacture, placing on : Not applicable.

**the market and use of certain
dangerous substances,
mixtures and articles**

Special packaging requirements

Containers to be fitted with : Not applicable.
child-resistant fastenings
Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the : This mixture does not contain any substances that are assessed to be a
criteria for PBT or vPvB PBT or a vPvB.
according to
Regulation (EC) No.
1907/2006, Annex XIII
Other hazards which do : None known.
not result in
classification

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Ammonium salt of modified styrene acrylic polymers	-	>= 10 - <= 25	Eye Irrit. 2, H319	-	[1]
ammonia	REACH#: 01-2119488876-14-XXXX EC : 215-647-6 CAS : 1336-21-6 Index:	> 0 - <= 3	Skin Corr. 1B, H314 Aquatic Acute 1, H400	M [Acute] = 1	[1]
2,4,7,9-tetramethyldec-5-yne-4,7-diol	REACH#: 01-2119954390-39-XXXX EC : 204-809-1 CAS : 126-86-3	> 0 - <= 0,3	Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412	-	[1]
2-methyl-2H-isothiazol-3-one	EC : 220-239-6 CAS : 2682-20-4	> 0 - < 0,0015	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/kg ATE [Inhalation (vapours)] = 0,5 mg/l Skin Sens. 1A, H317: >= 0,0015 % M [Acute] = 10 M [Chronic] = 1	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

Substance classified with a health or environmental hazard

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	: Adverse symptoms may include the following: pain or irritation,

Version: 1.1

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

	watering, redness
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: irritation, redness
Ingestion	: No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	: Decomposition products may include the following materials: nitrogen oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
2,4,7,9-tetramethyldec-5-yne-4,7-diol	DNEL	Long term Oral	0,25 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	5,28 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,76 mg/m ³	Workers	Systemic
	DNEL	Short term Dermal	1,5 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	1,29 mg/m ³	General population	Systemic
	DNEL	Short term Dermal	0,75 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	0,75 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0,5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0,43 mg/m ³	General population	Systemic
	DNEL	Long term	0,25 mg/kg	General	Systemic

Version: 1.1

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

		Dermal	bw/day	population	
	DNEL	Long term Oral	0,25 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	5,28 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,76 mg/m ³	Workers	Systemic
	DNEL	Short term Dermal	1,5 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	1,29 mg/m ³	General population	Systemic
	DNEL	Short term Dermal	0,75 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	0,75 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0,5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0,43 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,25 mg/kg bw/day	General population	Systemic
2-methyl-2H-isothiazol-3-one	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate

Version: 1.1

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

	techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
<u>Skin protection</u>	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: liquid
Color	: Colorless.
Odor	: Not available.
Odor threshold	: Not available.
Melting point/freezing point	: Not available.

Initial boiling point and boiling range	:	100,00 °C Not available.
Flammability	:	Not available.
Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	Not available.
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	1,02
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	0,06 %(m)

Particle characteristics

Median particle size	:	Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.
10.5 Incompatible materials	:	No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ammonia				
	LD50 Oral	Rat	350 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
2-methyl-2H-isothiazol-3-one	500 mg/kg	N/A	N/A	0,5 mg/l	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
ammonia	Eyes - Severe irritant	Rabbit	-	0,008 hrs	-
	Eyes - Severe irritant	Rabbit	-		-
	Eyes - Severe irritant	Rabbit	-		-
2,4,7,9-tetramethyldec-5-yne-4,7-diol	Eyes - Severe irritant	Rabbit	-		-
	Skin - Mild irritant	Rabbit	-		-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-methyl-2H-isothiazol-3-one	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes skin irritation.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following: pain or irritation, watering, redness
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following: irritation, redness
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Version: 1.1

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

Conclusion/Summary : Not available.

General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.
11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
ammonia			
	Acute LC50 37 mg/l Fresh water	Fish - <i>Gambusia affinis</i>	96 h
2-methyl-2H-isothiazol-3-one			
	Acute LC50 0,07 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,18 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.
Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	-	9006	-	-
14.2 UN proper shipping name	Not regulated.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Not regulated.	Not regulated.
14.3 Transport hazard class(es)	-	9	-	-
14.4 Packing group	-	-	-	-
14.5. Environmental hazards	No.	Yes.	No.	No.

Additional information

- ADN** : The product is only regulated as a dangerous good when transported in tank vessels.

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]

No listed substance

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

Version: 1.1

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	Not determined.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.

H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 3	AQUATIC HAZARD (LONG-TERM) - Category 3
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Date of printing : 08-22-2025
Date of issue/ Date of revision : 08-22-2025
Date of previous issue : 05-01-2025
Version : 1.1

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1534497
Material Description : INXSPERSE II PLUS GREEN 7
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 28

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 11.20 lb/gal Weight % 1344 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 41.78 %(m) Weight % 56.10 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content 40.6208 %Weight % 54.8381 Volume %
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 0.00 %(m) Weight % 0.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 58.22 %(m) Weight % 43.90 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 0.00 lb/gal 0 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

	CASRN	Weight %	Density (lb/gal)
HAP (if present above 0.1% by weight)			
SARA 313 (if present above SARA 313 de minimis threshold)			
VOC (if present above any regulatory de minimis threshold)			



Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

INXSPERSE II PLUS GREEN 7

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : INXSPERSE II PLUS GREEN 7
Product code : 1534497-5121, 1534497-4130, 1534497-4230, 1534497-2210, 1534497-3421, 1534497-4221, 1534497
Product description : Not available.
Product type : liquid
Other means of identification : INXSPERSE II PLUS GREEN 7

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
 INXGlobalRegulatory@inxintl.com
 150 N Martingale Rd, Suite 700
 Schaumburg
 USA
 60173
 800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)
Hours of operation : Not available.

Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Skin Sens. 1, H317

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H317: May cause an allergic skin reaction.

Precautionary statements

General : P103: Read carefully and follow all instructions.
P102: Keep out of reach of children.
P101: If medical advice is needed, have product container or label at hand.

Prevention : P280: Wear protective gloves.
P261: Avoid breathing vapor.

Response : P362 + P364: Take off contaminated clothing and wash it before reuse.
P302: IF ON SKIN:
P302 + P352: Wash with plenty of water.
P333: If skin irritation or rash occurs:
P333 + P313: Get medical advice or attention.

Storage : -: Not applicable.

Disposal : P501: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Contains : 2-methyl-2H-isothiazol-3-one
1,2-benzisothiazol-3(2H)-one

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, : Not applicable.

mixtures and articles

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.
Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
polychloro copper phthalocyanine This substance is identified in the colour index by colour index constitution No C.I. 74260.	REACH#: 01-2119459333-39-XXXX EC : 215-524-7 CAS : 1328-53-6	>= 25 - <= 50	Not classified.	-	[2]
ammonia	REACH#: 01-2119488876-14-XXXX EC : 215-647-6 CAS : 1336-21-6 Index:	> 0 - <= 0,3	Skin Corr. 1B, H314 Aquatic Acute 1, H400	M [Acute] = 1	[1]
2-methyl-2H-isothiazol-3-one	EC : 220-239-6 CAS : 2682-20-4	> 0 - < 0,1	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/kg ATE [Inhalation (vapours)] = 0,5 mg/l Skin Sens. 1A, H317: >= 0,0015 % M [Acute] = 10 M [Chronic] = 1	[1]
1,2-benzisothiazol-3(2H)-one	REACH#: 01-2120761540-60-XXXX EC : 220-120-9 CAS : 2634-33-5 Index: 613-088-00-6	> 0 - < 0,05	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400	ATE [Oral] = 1.020 mg/kg ATE [Inhalation (dusts and mists)] = 0,05 mg/l Skin Sens. 1A, H317: >= 0,05 % M [Acute] = 1 M [Chronic] = 1	[1]

			Aquatic Chronic 1, H410		

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

Substance classified with a health or environmental hazard

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	: Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear

gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	Adverse symptoms may include the following: irritation, redness
Ingestion	:	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	:	Decomposition products may include the following materials: metal oxide/oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
polychloro copper phthalocyanine This substance is identified in the colour index by colour index constitution No C.I. 74260.	National institute of occupational safety and health (2019-02-01). TWA 0,1 mg/m ³ (as Cu) Form: Respirable fraction

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
polychloro copper phthalocyanine This substance is identified in the colour index by colour index constitution No C.I. 74260.	DNEL	Long term Inhalation	1,25 mg/m ³	General population	Local

	DNEL	Long term Inhalation	1,25 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	1,25 mg/m ³	General population	Local
	DNEL	Long term Inhalation	1,25 mg/m ³	Workers	Local
1,2-benzisothiazol-3(2H)-one	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
2-methyl-2H-isothiazol-3-one	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

	lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
<u>Skin protection</u>	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: liquid
Color	: Green.
Odor	: Not available.
Odor threshold	: Not available.

Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	100,00 °C Not available.
Flammability	:	Not available.
Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	Not available.
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	1,35
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	0 %(m)

Particle characteristics

Median particle size	:	Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.
10.5 Incompatible materials	:	No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ammonia				
	LD50 Oral	Rat	350 mg/kg	-
1,2-benzisothiazol-3(2H)-one				
	LD50 Oral	Rat	1.020 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
1,2-benzisothiazol-3(2H)-one	1020 mg/kg	N/A	N/A	N/A	0,05 mg/l
2-methyl-2H-isothiazol-3-one	500 mg/kg	N/A	N/A	0,5 mg/l	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
ammonia	Eyes - Severe irritant	Rabbit	-	0,008 hrs	-
	Eyes - Severe irritant	Rabbit	-		-
	Eyes - Severe irritant	Rabbit	-		-
1,2-benzisothiazol-3(2H)-one	Skin - Mild irritant	Human	-	48 hrs	-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-methyl-2H-isothiazol-3-one	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following: irritation, redness
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary	: Not available.
General	: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties	: Not available.
11.2.2 Other information	: Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
ammonia			
	Acute LC50 37 mg/l Fresh water	Fish - <i>Gambusia affinis</i>	96 h
1,2-benzisothiazol-3(2H)-one			
	Acute LC50 0,167 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,097 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Acute LC50 10 - 20 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h
2-methyl-2H-isothiazol-3-one			
	Acute LC50 0,07 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,18 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h

Conclusion/Summary	: Not available.

12.2 Persistence and degradability

Conclusion/Summary	: Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (KOC)	: Not available.
Mobility	: Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	-	9006	-	-
14.2 UN proper shipping name	Not regulated.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Not regulated.	Not regulated.
14.3 Transport hazard class(es)	-	9	-	-

14.4 Packing group	-	-	-	-
14.5. Environmental hazards	No.	Yes.	No.	No.

Additional information

ADN : The product is only regulated as a dangerous good when transported in tank vessels.

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]

No listed substance

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Sens. 1, H317	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Date of printing : 08-22-2025
Date of issue/ Date of revision : 08-22-2025
Date of previous issue : 05-01-2025
Version : 2.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1534503
Material Description : INXSPERSE II PLUS RED 22
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 20

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 9.44 lb/gal Weight % 1132 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 47.79 %(m) Weight % 54.19 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content 47.634 %Weight % 53.8264 Volume %
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 0.00 %(m) Weight % 0.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 52.21 %(m) Weight % 45.81 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 0.00 lb/gal 0 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

HAP (if present above 0.1% by weight)	CASRN	Weight %	Density (lb/gal)
SARA 313 (if present above SARA 313 de minimis threshold)	CASRN	Weight %	Density (lb/gal)
VOC (if present above any regulatory de minimis threshold)	CASRN	Weight %	Density (lb/gal)

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

INXSPERSE II PLUS RED 22

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : INXSPERSE II PLUS RED 22
Product code : 1534503-4130, 1534503-4230, 1534503-5121, 1534503-2210, 1534503-3421, 1534503-4221, 1534503
Product description : Not available.
Product type : liquid
Other means of identification : INXSPERSE II PLUS RED 22

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)
Hours of operation : Not available.

Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Sens. 1, H317

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H317: May cause an allergic skin reaction.

Precautionary statements

General : P103: Read carefully and follow all instructions.
P102: Keep out of reach of children.
P101: If medical advice is needed, have product container or label at hand.

Prevention : P280: Wear protective gloves.
P261: Avoid breathing vapor.

Response : P362 + P364: Take off contaminated clothing and wash it before reuse.
P302: IF ON SKIN:
P302 + P352: Wash with plenty of water.
P333: If skin irritation or rash occurs:
P333 + P313: Get medical advice or attention.

Storage : -: Not applicable.

Disposal : P501: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Contains : 1,2-benzisothiazol-3(2H)-one
2-methyl-2H-isothiazol-3-one

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, : Not applicable.

mixtures and articles

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.
Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Alcohols, C12-15, ethoxylated	CAS : 68131-39-5	> 0 - <= 3	Aquatic Acute 1, H400	M [Acute] = 1	[1]
ammonia	REACH#: 01-2119488876-14-XXXX EC : 215-647-6 CAS : 1336-21-6 Index:	> 0 - <= 0,3	Skin Corr. 1B, H314 Aquatic Acute 1, H400	M [Acute] = 1	[1]
1,2-benzisothiazol-3(2H)-one	REACH#: 01-2120761540-60-XXXX EC : 220-120-9 CAS : 2634-33-5 Index: 613-088-00-6	> 0 - < 0,05	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 1.020 mg/kg ATE [Inhalation (dusts and mists)] = 0,05 mg/l Skin Sens. 1A, H317: >= 0,05 % M [Acute] = 1 M [Chronic] = 1	[1]
2-methyl-2H-isothiazol-3-one	EC : 220-239-6 CAS : 2682-20-4	> 0 - < 0,01	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/kg ATE [Inhalation (vapours)] = 0,5 mg/l Skin Sens. 1A, H317: >= 0,0015 % M [Acute] = 10 M [Chronic] = 1	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

Substance classified with a health or environmental hazard

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	:	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	Adverse symptoms may include the following: irritation, redness
Ingestion	:	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	:	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:	If specialized clothing is required to deal with the spillage, take

note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Alcohols, C12-15, ethoxylated	DNEL	Long term Oral	25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2080 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	1250 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	294 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	87 mg/m ³	General population	Systemic
	DNEL	Long term Oral	25 mg/kg bw/day	General population	Systemic

	DNEL	Long term Dermal	2080 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	1250 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	294 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	87 mg/m ³	General population	Systemic
1,2-benzisothiazol-3(2H)-one	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
2-methyl-2H-isothiazol-3-one	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

Hygiene measures	:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
<u>Skin protection</u>		
Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	liquid
Color	:	Red.

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

Odor	:	Not available.
Odor threshold	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	100,00 °C Not available.
Flammability	:	Not available.
Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	Not available.
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	1,13
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	0 %(m)

Particle characteristics

Median particle size	:	Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.

10.5 Incompatible materials : No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Alcohols, C12-15, ethoxylated				
	LD50 Oral	Rat	2.000 mg/kg	-
ammonia				
	LD50 Oral	Rat	350 mg/kg	-
1,2-benzisothiazol-3(2H)-one				
	LD50 Oral	Rat	1.020 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
1,2-benzisothiazol-3(2H)-one	1020 mg/kg	N/A	N/A	N/A	0,05 mg/l
2-methyl-2H-isothiazol-3-one	500 mg/kg	N/A	N/A	0,5 mg/l	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
ammonia	Eyes - Severe irritant	Rabbit	-	0,008 hrs	-
	Eyes - Severe irritant	Rabbit	-		-
	Eyes - Severe irritant	Rabbit	-		-
1,2-benzisothiazol-3(2H)-one	Skin - Mild irritant	Human	-	48 hrs	-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-methyl-2H-isothiazol-3-one	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following: irritation, redness
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.

11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Alcohols, C12-15, ethoxylated			
	Acute LC50 1,4 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 h
	Acute EC50 0,39 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h
	Acute EC50 0,302 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Chronic NOEC 0,083 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 d
ammonia			
	Acute LC50 37 mg/l Fresh water	Fish - <i>Gambusia affinis</i>	96 h
1,2-benzisothiazol-3(2H)-one			
	Acute LC50 0,167 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,097 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Acute LC50 10 - 20 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h
2-methyl-2H-isothiazol-3-one			
	Acute LC50 0,07 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,18 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Alcohols, C12-15, ethoxylated	2,03 - 6,24	-	high

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	-	9006	-	-
14.2 UN proper shipping name	Not regulated.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Not regulated.	Not regulated.
14.3 Transport hazard class(es)	-	9	-	-
14.4 Packing group	-	-	-	-
14.5. Environmental hazards	No.	Yes.	No.	No.

Additional information

ADN

: The product is only regulated as a dangerous good when transported in tank vessels.

14.6 Special precautions for user

: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments

: Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]

No listed substance

Other EU regulations

Industrial emissions : Not listed

(integrated pollution prevention and control) - Air

Industrial emissions : Not listed

(integrated pollution prevention and control) -

Water

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation
 [Regulation (EC) No. 1272/2008]
 DMEL = Derived Minimal Effect Level

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 N/A = Not available
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number
 SGG = Segregation Group
 vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008
[CLP/GHS]

Classification	Justification
Skin Sens. 1, H317	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Date of printing : 08-22-2025
 Date of issue/ Date of revision : 08-22-2025
 Date of previous issue : 05-01-2025
 Version : 2.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1534496
Material Description : INXSPERSE II PLUS RED 81:3
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 9

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 10.03 lb/gal Weight % 1203 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 52.39 %(m) Weight % 63.17 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content 51.8908 %Weight % 62.269 Volume %
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 0.03 %(m) Weight % 0.03 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 47.61 %(m) Weight % 36.83 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 0.01 lb/gal 1 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

	CASRN	Weight %	Density (lb/gal)
HAP (if present above 0.1% by weight)			
SARA 313 (if present above SARA 313 de minimis threshold)			
VOC (if present above any regulatory de minimis threshold)			

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

INXSPERSE II PLUS RED 81:3

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : INXSPERSE II PLUS RED 81:3
Product code : 1534496, 1534496-4130, 1534496-3421, 1534496-4230, 1534496-2210, 1534496-4221
Product description : Not available.
Product type : liquid
Other means of identification : INXSPERSE II PLUS RED 81:3

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)
Hours of operation : Not available.

Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Sens. 1, H317

Aquatic Acute 1, H400

Aquatic Chronic 1, H410

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word :

Warning

Hazard statements :

H317: May cause an allergic skin reaction.

H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements

General :

P103: Read carefully and follow all instructions.

P102: Keep out of reach of children.

P101: If medical advice is needed, have product container or label at hand.

Prevention :

P280: Wear protective gloves.

P273: Avoid release to the environment.

P261: Avoid breathing vapor.

Response :

P391: Collect spillage.

P362 + P364: Take off contaminated clothing and wash it before reuse.

P302: IF ON SKIN:

P302 + P352: Wash with plenty of water.

P333: If skin irritation or rash occurs:

P333 + P313: Get medical advice or attention.

Storage :

-: Not applicable.

Disposal :

P501: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Contains :

1,2-benzisothiazol-3(2H)-one

2-methyl-2H-isothiazol-3-one

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.
Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Xanthylum, 9-[2-(ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7-dimethyl-, molybdatesilicate	EC : 263-793-4 CAS : 63022-06-0	>= 25 - <= 50	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
Alcohols, C12-15, ethoxylated	CAS : 68131-39-5	> 0 - <= 3	Aquatic Acute 1, H400	M [Acute] = 1	[1]
1,2-benzisothiazol-3(2H)-one	REACH#: 01-2120761540-60-XXXX EC : 220-120-9 CAS : 2634-33-5 Index: 613-088-00-6	> 0 - < 0,05	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 1.020 mg/kg ATE [Inhalation (dusts and mists)] = 0,05 mg/l Skin Sens. 1A, H317: >= 0,05 % M [Acute] = 1 M [Chronic] = 1	[1]
2-methyl-2H-isothiazol-3-one	EC : 220-239-6 CAS : 2682-20-4	> 0 - < 0,01	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400	ATE [Oral] = 500 mg/kg ATE [Inhalation (vapours)] = 0,5 mg/l Skin Sens. 1A, H317: >= 0,0015 % M [Acute] = 10 M [Chronic] = 1	[1]

			Aquatic Chronic 1, H410		

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

Substance classified with a health or environmental hazard

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	:	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear

gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	Adverse symptoms may include the following: irritation, redness
Ingestion	:	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	In a fire or if heated, a pressure increase will occur and the container may burst. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous combustion products	:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide

5.3 Advice for firefighters

Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor

or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers

should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
E1	100 kg	200 kg

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

Product/ingredient name	Type	Exposure	Value	Population	Effects
Xanthylum, 9-[2-(ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7-dimethyl-, molybdatesilicate	DNEL	Long term Oral	0,167 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	1,64 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	0,467 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0,29 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,167 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0,167 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	1,64 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	0,467 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0,29 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,167 mg/kg bw/day	General population	Systemic
Alcohols, C12-15, ethoxylated	DNEL	Long term Oral	25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2080 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	1250 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	294 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	87 mg/m ³	General population	Systemic
	DNEL	Long term Oral	25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2080 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	1250 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	294 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	87 mg/m ³	General population	Systemic
1,2-benzisothiazol-3(2H)-one	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic

	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
2-methyl-2H-isothiazol-3-one	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still

	retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: liquid
Color	: Red.
Odor	: Not available.
Odor threshold	: Not available.
Melting point/freezing point	: Not available.
Initial boiling point and boiling range	: 100,00 °C Not available.
Flammability	: Not available.
Lower and upper explosion limit	: Lower: Not available. Upper: Not available.
Flash point	:
Auto-ignition temperature	: Not Available
Decomposition temperature	: Not available.
pH	: Not available.

Viscosity : **Dynamic** Not available.
: **Kinematic** Not available.
:
Solubility in water : Not available.
Partition coefficient: n-octanol/water : Not applicable.
Vapor pressure :
Relative density : 1,2
Vapor density : Not available.
Explosive properties : Not available.
Oxidizing properties : Not available.
VOC : 0,03 %(m)

Particle characteristics

Median particle size : Not applicable.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : No specific data.
- 10.5 Incompatible materials** : No specific data.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Alcohols, C12-15, ethoxylated				
	LD50 Oral	Rat	2.000 mg/kg	-
1,2-benzisothiazol-3(2H)-one				
	LD50 Oral	Rat	1.020 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
1,2-benzisothiazol-3(2H)-one	1020 mg/kg	N/A	N/A	N/A	0,05 mg/l
2-methyl-2H-isothiazol-3-one	500 mg/kg	N/A	N/A	0,5 mg/l	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
1,2-benzisothiazol-3(2H)-one	Skin - Mild irritant	Human	-	48 hrs	-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-methyl-2H-isothiazol-3-one	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following: irritation, redness
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.
General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.

11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Alcohols, C12-15, ethoxylated			
	Acute LC50 1,4 mg/l Fresh	Fish - <i>Pimephales</i>	96 h

	water	<i>promelas</i>	
	Acute EC50 0,39 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h
	Acute EC50 0,302 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Chronic NOEC 0,083 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 d
1,2-benzisothiazol-3(2H)-one			
	Acute LC50 0,167 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,097 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Acute LC50 10 - 20 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h
2-methyl-2H-isothiazol-3-one			
	Acute LC50 0,07 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,18 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Alcohols, C12-15, ethoxylated	2,03 - 6,24	-	high

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN3082	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Xanthylum, 9-[2-(ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7-dimethyl-, molybdatesilicate, Alcohols, C12-15, ethoxylated)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Xanthylum, 9-[2-(ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7-dimethyl-, molybdatesilicate, Alcohols, C12-15, ethoxylated)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Xanthylum, 9-[2-(ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7-dimethyl-, molybdatesilicate, Alcohols, C12-15, ethoxylated) Marine pollutant (Xanthylum, 9-[2-(ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7-dimethyl-, molybdatesilicate, Alcohols, C12-15, ethoxylated)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Xanthylum, 9-[2-(ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7-dimethyl-, molybdatesilicate, Alcohols, C12-15, ethoxylated)
14.3 Transport hazard	9	9	9	9

class(es)				
14.4 Packing group	III	III	III	III
14.5. Environmental hazards	Yes.	Yes.	Yes.	Yes.

Additional information

ADR/RID

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Tunnel code (-)

ADN

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IMDG

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IATA

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

14.6 Special precautions for user

: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments

: Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

Product/ingredient name	%	Designation [Usage]

No listed substance

Other EU regulations

Industrial emissions : Not listed

(integrated pollution prevention and control) - Air

Industrial emissions : Not listed

(integrated pollution prevention and control) -

Water

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
E1

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	Not determined.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment

: This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Sens. 1, H317	Calculation method
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 1, H410	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Date of printing : 08-22-2025
Date of issue/ Date of revision : 08-22-2025

Date of previous issue : 05-01-2025
Version : 2.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1534505
Material Description : INXSPERSE II PLUS RED 184
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 12

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 9.36 lb/gal Weight % 1123 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 50.14 %(m) Weight % 56.35 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content 50.1149 %Weight % 56.1287 Volume %
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 0.00 %(m) Weight % 0.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 49.86 %(m) Weight % 43.65 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 0.00 lb/gal 0 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

HAP (if present above 0.1% by weight)	CASRN	Weight %	Density (lb/gal)
SARA 313 (if present above SARA 313 de minimis threshold)	CASRN	Weight %	Density (lb/gal)
VOC (if present above any regulatory de minimis threshold)	CASRN	Weight %	Density (lb/gal)

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

INXSPERSE II PLUS RED 184

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : INXSPERSE II PLUS RED 184
Product code : 1534505-3421, 1534505-5121, 1534505-4130, 1534505-4230, 1534505, 1534505-2210, 1534505-4221
Product description : Not available.
Product type : liquid
Other means of identification : INXSPERSE II PLUS RED 184

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)
Hours of operation : Not available.

Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Sens. 1, H317

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H317: May cause an allergic skin reaction.

Precautionary statements

General : P103: Read carefully and follow all instructions.
P102: Keep out of reach of children.
P101: If medical advice is needed, have product container or label at hand.

Prevention : P280: Wear protective gloves.
P261: Avoid breathing vapor.

Response : P362 + P364: Take off contaminated clothing and wash it before reuse.
P302: IF ON SKIN:
P302 + P352: Wash with plenty of water.
P333: If skin irritation or rash occurs:
P333 + P313: Get medical advice or attention.

Storage : -: Not applicable.

Disposal : P501: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Contains : 1,2-benzisothiazol-3(2H)-one
2-methyl-2H-isothiazol-3-one

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, : Not applicable.

mixtures and articles

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.
Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Alcohols, C12-15, ethoxylated	CAS : 68131-39-5	> 0 - <= 3	Aquatic Acute 1, H400	M [Acute] = 1	[1]
1,2-benzisothiazol-3(2H)-one	REACH#: 01-2120761540-60-XXXX EC : 220-120-9 CAS : 2634-33-5 Index: 613-088-00-6	> 0 - < 0,05	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 1.020 mg/kg ATE [Inhalation (dusts and mists)] = 0,05 mg/l Skin Sens. 1A, H317: >= 0,05 % M [Acute] = 1 M [Chronic] = 1	[1]
2-methyl-2H-isothiazol-3-one	EC : 220-239-6 CAS : 2682-20-4	> 0 - < 0,01	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/kg ATE [Inhalation (vapours)] = 0,5 mg/l Skin Sens. 1A, H317: >= 0,0015 % M [Acute] = 10 M [Chronic] = 1	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 10-11-2021

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	:	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	Adverse symptoms may include the following: irritation, redness
Ingestion	:	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide

5.3 Advice for firefighters

Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 10-11-2021

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.
- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific** : Not available.

solutions

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures

: Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Alcohols, C12-15, ethoxylated	DNEL	Long term Oral	25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2080 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	1250 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	294 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	87 mg/m ³	General population	Systemic
	DNEL	Long term Oral	25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2080 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	1250 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	294 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	87 mg/m ³	General population	Systemic
1,2-benzisothiazol-3(2H)-one	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic

	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
2-methyl-2H-isothiazol-3-one	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to

avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	liquid
Color	:	Red.
Odor	:	Not available.
Odor threshold	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	100,00 °C Not available.
Flammability	:	Not available.

Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	Not available.
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	1,12
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	0 %(m)

Particle characteristics

Median particle size	:	Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.
10.5 Incompatible materials	:	No specific data.
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Alcohols, C12-15, ethoxylated				
	LD50 Oral	Rat	2.000 mg/kg	-
1,2-benzisothiazol-3(2H)-one				
	LD50 Oral	Rat	1.020 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
1,2-benzisothiazol-3(2H)-one	1020 mg/kg	N/A	N/A	N/A	0,05 mg/l
2-methyl-2H-isothiazol-3-one	500 mg/kg	N/A	N/A	0,5 mg/l	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
1,2-benzisothiazol-3(2H)-one	Skin - Mild irritant	Human	-	48 hrs	-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-methyl-2H-isothiazol-3-one	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following: irritation, redness
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.
General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.

11.2.2 Other information : Not available.

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 10-11-2021

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Alcohols, C12-15, ethoxylated			
	Acute LC50 1,4 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 h
	Acute EC50 0,39 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h
	Acute EC50 0,302 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Chronic NOEC 0,083 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 d
1,2-benzisothiazol-3(2H)-one			
	Acute LC50 0,167 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,097 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Acute LC50 10 - 20 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h
2-methyl-2H-isothiazol-3-one			
	Acute LC50 0,07 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,18 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Alcohols, C12-15, ethoxylated	2,03 - 6,24	-	high

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	-	9006	-	-
14.2 UN proper shipping name	Not regulated.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Not regulated.	Not regulated.
14.3 Transport hazard class(es)	-	9	-	-
14.4 Packing group	-	-	-	-
14.5. Environmental hazards	No.	Yes.	No.	No.

Additional information

ADN : The product is only regulated as a dangerous good when transported in tank vessels.

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]

No listed substance

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) -Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 10-11-2021

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Sens. 1, H317	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 10-11-2021

H318	Causes serious eye damage.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Date of printing : 08-22-2025
Date of issue/ Date of revision : 08-22-2025
Date of previous issue : 10-11-2021
Version : 2.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1534498
Material Description : INXSPERSE II PLUS RUBINE RED 57
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 30

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 9.74 lb/gal Weight % 1169 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 52.77 %(m) Weight % 61.59 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content 51.0649 %Weight % 59.7459 Volume %
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 0.00 %(m) Weight % 0.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 47.23 %(m) Weight % 38.41 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 0.00 lb/gal 0 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

	CASRN	Weight %	Density (lb/gal)
HAP (if present above 0.1% by weight)			
SARA 313 (if present above SARA 313 de minimis threshold)			
VOC (if present above any regulatory de minimis threshold)			

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

INXSPERSE II PLUS RUBINE RED 57

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : INXSPERSE II PLUS RUBINE RED 57
Product code : 1534498-4130, 1534498-5121, 1534498-4230, 1534498-3421, 1534498-2210, 1534498-4221, 1534498
Product description : Not available.
Product type : liquid
Other means of identification : INXSPERSE II PLUS RUBINE RED 57

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)
Hours of operation : Not available.

Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Sens. 1, H317

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H317: May cause an allergic skin reaction.

Precautionary statements

General : P103: Read carefully and follow all instructions.
P102: Keep out of reach of children.
P101: If medical advice is needed, have product container or label at hand.

Prevention : P280: Wear protective gloves.
P261: Avoid breathing vapor.

Response : P362 + P364: Take off contaminated clothing and wash it before reuse.
P302: IF ON SKIN:
P302 + P352: Wash with plenty of water.
P333: If skin irritation or rash occurs:
P333 + P313: Get medical advice or attention.

Storage : -: Not applicable.

Disposal : P501: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Contains : 1,2-benzisothiazol-3(2H)-one
2-methyl-2H-isothiazol-3-one

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, : Not applicable.

mixtures and articles

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.
Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
ammonia	REACH#: 01-2119488876-14-XXXX EC : 215-647-6 CAS : 1336-21-6 Index:	> 0 - <= 0,3	Skin Corr. 1B, H314 Aquatic Acute 1, H400	M [Acute] = 1	[1]
1,2-benzisothiazol-3(2H)-one	REACH#: 01-2120761540-60-XXXX EC : 220-120-9 CAS : 2634-33-5 Index: 613-088-00-6	> 0 - < 0,05	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 1.020 mg/kg ATE [Inhalation (dusts and mists)] = 0,05 mg/l Skin Sens. 1A, H317: >= 0,05 % M [Acute] = 1 M [Chronic] = 1	[1]
2-methyl-2H-isothiazol-3-one	EC : 220-239-6 CAS : 2682-20-4	> 0 - < 0,01	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/kg ATE [Inhalation (vapours)] = 0,5 mg/l Skin Sens. 1A, H317: >= 0,0015 % M [Acute] = 10 M [Chronic] = 1	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

Substance classified with a health or environmental hazard

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	:	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	No specific data.
Inhalation	:	No specific data.

- Skin contact** : Adverse symptoms may include the following: irritation, redness
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous combustion products** : No specific data.

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution

(sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
1,2-benzisothiazol-3(2H)-one	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
2-methyl-2H-isothiazol-3-one	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

- : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection

- : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

- : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before

Other skin protection	:	handling this product.
	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	liquid
Color	:	Red.
Odor	:	Not available.
Odor threshold	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	100,00 °C Not available.
Flammability	:	Not available.
Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	Not available.
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

Relative density : 1,17

Vapor density : Not available.

Explosive properties : Not available.

Oxidizing properties : Not available.

VOC : 0 %(m)

Particle characteristics

Median particle size : Not applicable.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : No specific data.
- 10.5 Incompatible materials** : No specific data.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ammonia				
	LD50 Oral	Rat	350 mg/kg	-
1,2-benzisothiazol-3(2H)-one				
	LD50 Oral	Rat	1.020 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
1,2-benzisothiazol-3(2H)-one	1020 mg/kg	N/A	N/A	N/A	0,05 mg/l

2-methyl-2H-isothiazol-3-one	500 mg/kg	N/A	N/A	0,5 mg/l	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
ammonia	Eyes - Severe irritant	Rabbit	-	0,008 hrs	-
	Eyes - Severe irritant	Rabbit	-		-
	Eyes - Severe irritant	Rabbit	-		-
1,2-benzisothiazol-3(2H)-one	Skin - Mild irritant	Human	-	48 hrs	-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-methyl-2H-isothiazol-3-one	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following: irritation, redness
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.
General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.
11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
ammonia			
	Acute LC50 37 mg/l Fresh water	Fish - <i>Gambusia affinis</i>	96 h

1,2-benzisothiazol-3(2H)-one			
	Acute LC50 0,167 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,097 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Acute LC50 10 - 20 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h
2-methyl-2H-isothiazol-3-one			
	Acute LC50 0,07 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,18 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	-	-	-	-
14.2 UN proper shipping name	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5. Environmental hazards	No.	No.	No.	No.

Additional information

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]

No listed substance

Other EU regulations

Industrial emissions : Not listed
(integrated pollution prevention and control) - Air

Industrial emissions : Not listed
(integrated pollution prevention and control) -

Water

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) -Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment

: This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Sens. 1, H317	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Date of printing : 08-22-2025

Date of issue/ Date of revision : 08-22-2025

Date of previous issue : 05-01-2025

Version : 2.0

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1534499
Material Description : INXSPERSE II PLUS YELLOW 14
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 30

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 9.25 lb/gal Weight % 1110 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 49.75 %(m) Weight % 55.22 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content 48.6668 %Weight % 54.0201 Volume %
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 0.00 %(m) Weight % 0.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 50.25 %(m) Weight % 44.78 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 0.00 lb/gal 0 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

	CASRN	Weight %	Density (lb/gal)
HAP (if present above 0.1% by weight)			
SARA 313 (if present above SARA 313 de minimis threshold)			
VOC (if present above any regulatory de minimis threshold)			

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

INXSPERSE II PLUS YELLOW 14

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : INXSPERSE II PLUS YELLOW 14
Product code : 1534499-4223, 1534499-4230, 1534499-5121, 1534499-3421, 1534499-2210, 1534499-4221, 1534499
Product description : Not available.
Product type : liquid
Other means of identification : INXSPERSE II PLUS YELLOW 14

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)
Hours of operation : Not available.

Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Skin Sens. 1, H317

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H317: May cause an allergic skin reaction.

Precautionary statements

General : P103: Read carefully and follow all instructions.
P102: Keep out of reach of children.
P101: If medical advice is needed, have product container or label at hand.

Prevention : P280: Wear protective gloves.
P261: Avoid breathing vapor.

Response : P362 + P364: Take off contaminated clothing and wash it before reuse.
P302: IF ON SKIN:
P302 + P352: Wash with plenty of water.
P333: If skin irritation or rash occurs:
P333 + P313: Get medical advice or attention.

Storage : -: Not applicable.

Disposal : P501: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Contains : 2-methyl-2H-isothiazol-3-one
1,2-benzisothiazol-3(2H)-one

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, : Not applicable.

mixtures and articles

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.
Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
ammonia	REACH#: 01-2119488876-14-XXXX EC : 215-647-6 CAS : 1336-21-6 Index:	> 0 - <= 0,3	Skin Corr. 1B, H314 Aquatic Acute 1, H400	M [Acute] = 1	[1]
2-methyl-2H-isothiazol-3-one	EC : 220-239-6 CAS : 2682-20-4	> 0 - < 0,1	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/kg ATE [Inhalation (vapours)] = 0,5 mg/l Skin Sens. 1A, H317: >= 0,0015 % M [Acute] = 10 M [Chronic] = 1	[1]
1,2-benzisothiazol-3(2H)-one	REACH#: 01-2120761540-60-XXXX EC : 220-120-9 CAS : 2634-33-5 Index: 613-088-00-6	> 0 - < 0,05	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 1.020 mg/kg ATE [Inhalation (dusts and mists)] = 0,05 mg/l Skin Sens. 1A, H317: >= 0,05 % M [Acute] = 1 M [Chronic] = 1	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

Substance classified with a health or environmental hazard

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	: Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	Adverse symptoms may include the following: irritation, redness
Ingestion	:	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	:	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, halogenated compounds

5.3 Advice for firefighters

Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers.

Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
1,2-benzisothiazol-3(2H)-one	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

2-methyl-2H-isothiazol-3-one	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the

Body protection	:	gloves cannot be accurately estimated. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	liquid
Color	:	Yellow.
Odor	:	Not available.
Odor threshold	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	100,00 °C Not available.
Flammability	:	Not available.
Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	Not available.
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.

Partition coefficient: n-octanol/water : Not applicable.

Vapor pressure :

Relative density : 1,11

Vapor density : Not available.

Explosive properties : Not available.

Oxidizing properties : Not available.

VOC : 0 %(m)

Particle characteristics

Median particle size : Not applicable.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : No specific data.
- 10.5 Incompatible materials** : No specific data.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ammonia				
	LD50 Oral	Rat	350 mg/kg	-
1,2-benzisothiazol-3(2H)-one				
	LD50 Oral	Rat	1.020 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient	Oral	Dermal	Inhalation	Inhalation	Inhalation

name			(gases)	(vapors)	(dusts and mists)
1,2-benzisothiazol-3(2H)-one	1020 mg/kg	N/A	N/A	N/A	0,05 mg/l
2-methyl-2H-isothiazol-3-one	500 mg/kg	N/A	N/A	0,5 mg/l	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
ammonia	Eyes - Severe irritant	Rabbit	-	0,008 hrs	-
	Eyes - Severe irritant	Rabbit	-		-
	Eyes - Severe irritant	Rabbit	-		-
1,2-benzisothiazol-3(2H)-one	Skin - Mild irritant	Human	-	48 hrs	-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-methyl-2H-isothiazol-3-one	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following: irritation, redness
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.
General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.
11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
ammonia			
	Acute LC50 37 mg/l Fresh water	Fish - <i>Gambusia affinis</i>	96 h
1,2-benzisothiazol-3(2H)-one			
	Acute LC50 0,167 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,097 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Acute LC50 10 - 20 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h
2-methyl-2H-isothiazol-3-one			
	Acute LC50 0,07 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,18 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and

any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	-	9006	-	-
14.2 UN proper shipping name	Not regulated.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Not regulated.	Not regulated.
14.3 Transport hazard class(es)	-	9	-	-
14.4 Packing group	-	-	-	-
14.5. Environmental hazards	No.	Yes.	No.	No.

Additional information

ADN : The product is only regulated as a dangerous good when transported in tank vessels.

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]

No listed substance

Other EU regulations

Industrial emissions : Not listed

(integrated pollution prevention and control) - Air

Industrial emissions : Not listed

(integrated pollution prevention and control) -

Water

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.

Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Sens. 1, H317	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Date of printing : 08-22-2025
Date of issue/ Date of revision : 08-22-2025
Date of previous issue : 05-01-2025
Version : 2.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1359441
Material Description : INXSPERSE II YS ORANGE
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 33

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 9.27 lb/gal Weight % 1111 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 54.95 %(m) Weight % 61.22 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content 54.3256 %Weight % 60.3014 Volume %
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 0.00 %(m) Weight % 0.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 45.05 %(m) Weight % 38.78 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 0.00 lb/gal 0 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

	CASRN	Weight %	Density (lb/gal)
HAP (if present above 0.1% by weight)			
SARA 313 (if present above SARA 313 de minimis threshold)			
VOC (if present above any regulatory de minimis threshold)			

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

INXSPERSE II YS ORANGE

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : INXSPERSE II YS ORANGE
Product code : 1359441-4120, 1359441-5121, 1359441-3420, 1359441-4130, 1359441-4230, 1359441-2210, 1359441, 1359441-4202, 1359441-4223, 1359441-3421, 1359441-4221
Product description : Not available.
Product type : liquid
Other means of identification : INXSPERSE II YS ORANGE

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Hours of operation : Not available.
Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Sens. 1, H317

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H317: May cause an allergic skin reaction.

Precautionary statements

General : P103: Read carefully and follow all instructions.
P102: Keep out of reach of children.
P101: If medical advice is needed, have product container or label at hand.

Prevention : P280: Wear protective gloves.
P261: Avoid breathing vapor.

Response : P362 + P364: Take off contaminated clothing and wash it before reuse.
P302: IF ON SKIN:
P302 + P352: Wash with plenty of water.
P333: If skin irritation or rash occurs:
P333 + P313: Get medical advice or attention.

Storage : -: Not applicable.

Disposal : P501: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Contains : 1,2-benzisothiazol-3(2H)-one
2-methyl-2H-isothiazol-3-one

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain : Not applicable.

**dangerous substances,
mixtures and articles**

Special packaging requirements

Containers to be fitted with : Not applicable.
child-resistant fastenings
Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the : This mixture does not contain any substances that are assessed to be a
criteria for PBT or vPvB PBT or a vPvB.
according to
Regulation (EC) No.
1907/2006, Annex XIII
Other hazards which do : None known.
not result in
classification

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Alcohols, C12-15, ethoxylated	CAS : 68131-39-5	> 0 - <= 3	Aquatic Acute 1, H400	M [Acute] = 1	[1]
ammonia	REACH#: 01-2119488876-14-XXXX EC : 215-647-6 CAS : 1336-21-6 Index:	> 0 - < 1	Skin Corr. 1B, H314 Aquatic Acute 1, H400	M [Acute] = 1	[1]
1,2-benzisothiazol-3(2H)-one	REACH#: 01-2120761540-60-XXXX EC : 220-120-9 CAS : 2634-33-5 Index: 613-088-00-6	> 0 - < 0,05	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 1.020 mg/kg ATE [Inhalation (dusts and mists)] = 0,05 mg/l Skin Sens. 1A, H317: >= 0,05 % M [Acute] = 1 M [Chronic] = 1	[1]
2-methyl-2H-isothiazol-3-one	EC : 220-239-6 CAS : 2682-20-4	> 0 - < 0,01	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/kg ATE [Inhalation (vapours)] = 0,5 mg/l Skin Sens. 1A, H317: >= 0,0015 % M [Acute] = 10 M [Chronic] = 1	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

Substance classified with a health or environmental hazard

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	:	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	Adverse symptoms may include the following: irritation, redness
Ingestion	:	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	:	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:	If specialized clothing is required to deal with the spillage, take

note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Alcohols, C12-15, ethoxylated	DNEL	Long term Oral	25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2080 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	1250 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	294 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	87 mg/m ³	General population	Systemic
	DNEL	Long term Oral	25 mg/kg bw/day	General population	Systemic

	DNEL	Long term Dermal	2080 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	1250 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	294 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	87 mg/m ³	General population	Systemic
1,2-benzisothiazol-3(2H)-one	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
2-methyl-2H-isothiazol-3-one	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

Hygiene measures	:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
<u>Skin protection</u>		
Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	liquid
Color	:	Orange.

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

Odor	:	Not available.
Odor threshold	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	100,00 °C Not available.
Flammability	:	Not available.
Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	Not available.
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	1,11
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	0 %(m)

Particle characteristics

Median particle size	:	Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.

10.5 Incompatible materials : No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Alcohols, C12-15, ethoxylated				
	LD50 Oral	Rat	2.000 mg/kg	-
ammonia				
	LD50 Oral	Rat	350 mg/kg	-
1,2-benzisothiazol-3(2H)-one				
	LD50 Oral	Rat	1.020 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
1,2-benzisothiazol-3(2H)-one	1020 mg/kg	N/A	N/A	N/A	0,05 mg/l
2-methyl-2H-isothiazol-3-one	500 mg/kg	N/A	N/A	0,5 mg/l	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
ammonia	Eyes - Severe irritant	Rabbit	-	0,008 hrs	-
	Eyes - Severe irritant	Rabbit	-		-
	Eyes - Severe irritant	Rabbit	-		-
1,2-benzisothiazol-3(2H)-one	Skin - Mild irritant	Human	-	48 hrs	-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-methyl-2H-isothiazol-3-one	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following: irritation, redness
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.

11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Alcohols, C12-15, ethoxylated			
	Acute LC50 1,4 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 h
	Acute EC50 0,39 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h
	Acute EC50 0,302 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Chronic NOEC 0,083 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 d
ammonia			
	Acute LC50 37 mg/l Fresh water	Fish - <i>Gambusia affinis</i>	96 h
1,2-benzisothiazol-3(2H)-one			
	Acute LC50 0,167 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,097 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Acute LC50 10 - 20 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h
2-methyl-2H-isothiazol-3-one			
	Acute LC50 0,07 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,18 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Alcohols, C12-15, ethoxylated	2,03 - 6,24	-	high

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	-	9006	-	-
14.2 UN proper shipping name	Not regulated.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Not regulated.	Not regulated.
14.3 Transport hazard class(es)	-	9	-	-
14.4 Packing group	-	-	-	-
14.5. Environmental hazards	No.	Yes.	No.	No.

Additional information

ADN

: The product is only regulated as a dangerous good when transported in tank vessels.

14.6 Special precautions for user

: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments

: Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]

No listed substance

Other EU regulations

Industrial emissions : Not listed

(integrated pollution prevention and control) - Air

Industrial emissions : Not listed

(integrated pollution prevention and control) -

Water

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DMEL = Derived Minimal Effect Level

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 N/A = Not available
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number
 SGG = Segregation Group
 vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008
[CLP/GHS]

Classification	Justification
Skin Sens. 1, H317	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Date of printing : 08-22-2025
 Date of issue/ Date of revision : 08-22-2025
 Date of previous issue : 05-01-2025
 Version : 2.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1389576
Material Description : ECO-ICE INK CLEANER EMULSIFIER
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 76

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 8.94 lb/gal Weight % 1072 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 74.60 %(m) Weight % 80.06 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content 74.60 %Weight % 79.822 Volume %
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 0.00 %(m) Weight % 0.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 25.40 %(m) Weight % 19.94 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 0.00 lb/gal 0 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

	CASRN	Weight %	Density (lb/gal)
HAP (if present above 0.1% by weight)			
SARA 313 (if present above SARA 313 de minimis threshold)			
VOC (if present above any regulatory de minimis threshold)			

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

ECO-ICE INK CLEANER EMULSIFIER

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : ECO-ICE INK CLEANER EMULSIFIER
Product code : 1389576-4223, 1389576-4230, 1389576-3421K, 1389576-4260, 1389576-2210NL, 1389576, 1389576-4202, 1389576-4120, 1389576-4221, 1389576-3421, 1389576-5121, 1389576-3420, 1389576-2210, 1389576-3429, 1389576-4000
Product description : Not available.
Product type : liquid
Other means of identification : ECO-ICE INK CLEANER EMULSIFIER

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against
Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-

Hours of operation	:	1-352-323-3500 outside of North America)
Information limitations	:	Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Corr. 1B, H314

Eye Dam. 1, H318

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H314: Causes severe skin burns and eye damage.

Precautionary statements

General : P103: Read carefully and follow all instructions.
P102: Keep out of reach of children.
P101: If medical advice is needed, have product container or label at hand.

Prevention : P280: Wear protective gloves, protective clothing and eye or face protection.

Response : P304: IF INHALED:
P304 + P310: Immediately call a POISON CENTER or doctor.
P301: IF SWALLOWED:
P301 + P310: Immediately call a POISON CENTER or doctor.
P301 + P330 + P331: Rinse mouth. Do NOT induce vomiting.
P303: IF ON SKIN (or hair):
P303 + P361 + P353: Take off immediately all contaminated clothing. Rinse skin with water.
P303 + P310: Immediately call a POISON CENTER or doctor.
P363: Wash contaminated clothing before reuse.
P305: IF IN EYES:
P305 + P351 + P338: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P305 + P310: Immediately call a POISON CENTER or doctor.

Storage : P405: Store locked up.

Disposal : P501: Dispose of contents and container in accordance with all

local, regional, national and international regulations.

Contains : Sodium silicate pentahydrate

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Yes, applicable.

Tactile warning of danger : Yes, applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Sodium silicate pentahydrate	EC : 229-912-9 CAS : 10213-79-3 Index: 014-010-00-8	>= 10 - < 20	Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 (Respiratory tract irritation)	-	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

Substance classified with a health or environmental hazard

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	:	Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
Inhalation	:	Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	:	Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	Adverse symptoms may include the following: pain, watering, redness
Inhalation	:	No specific data.

- Skin contact** : Adverse symptoms may include the following: pain or irritation, redness, blistering may occur
- Ingestion** : Adverse symptoms may include the following: stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous combustion products** : Decomposition products may include the following materials: metal oxide/oxides

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution

(sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to

avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	liquid
Color	:	Blue.
Odor	:	Not available.
Odor threshold	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	100,00 °C Not available.

Flammability	:	Not available.

Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	Not available.
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	1,07
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	0 %(m)

Particle characteristics

Median particle size	:	Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.
10.5 Incompatible materials	:	No specific data.
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Sodium silicate pentahydrate				
	LD50 Oral	Rat	847 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

N/A

Irritation/Corrosion

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Sodium silicate pentahydrate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely : Not available.

routes of exposure

Potential acute health effects

Eye contact	:	Causes serious eye damage.
Inhalation	:	No known significant effects or critical hazards.
Skin contact	:	Causes severe burns.
Ingestion	:	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	Adverse symptoms may include the following: pain, watering, redness
Inhalation	:	No specific data.
Skin contact	:	Adverse symptoms may include the following: pain or irritation, redness, blistering may occur
Ingestion	:	Adverse symptoms may include the following: stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.

Long term exposure

Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.

Potential chronic health effects

Conclusion/Summary	:	Not available.
General	:	No known significant effects or critical hazards.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Reproductive toxicity	:	No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties	:	Not available.
11.2.2 Other information	:	Not available.

SECTION 12: Ecological information

12.1 Toxicity

Conclusion/Summary	:	Not available.

12.2 Persistence and degradability

Conclusion/Summary	:	Not available.

12.3 Bioaccumulative potential

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	-	-	-	-
14.2 UN proper shipping name	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5. Environmental hazards	No.	No.	No.	No.

Additional information

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]

No listed substance

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) -Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification according to Regulation (EC) No. 1272/2008
[CLP/GHS]**

Classification	Justification
Skin Corr. 1B, H314	Calculation method
Eye Dam. 1, H318	Calculation method

Full text of abbreviated H statements

H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

Full text of classifications [CLP/GHS]

Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Date of printing : 08-22-2025
Date of issue/ Date of revision : 08-22-2025
Date of previous issue : 00-00-0000
Version : 1.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1476993
Material Description : FNS DEFOAMER
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 11

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 8.30 lb/gal Weight % 995 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 10.00 %(m) Weight % 10.20 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content 5.50 %Weight % 5.5 Volume %
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 0.00 %(m) Weight % 0.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 90.00 %(m) Weight % 89.80 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 0.00 lb/gal 0 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

	CASRN	Weight %	Density (lb/gal)
HAP (if present above 0.1% by weight)			
SARA 313 (if present above SARA 313 de minimis threshold)			
VOC (if present above any regulatory de minimis threshold)			

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

FNS DEFOAMER

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : FNS DEFOAMER
Product code : 1476993-2210, 1476993, 1476993-3421
Product description : Not available.
Product type : liquid
Other means of identification : FNS DEFOAMER

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)
Hours of operation : Not available.
Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Signal word : -
Hazard statements : ..No known significant effects or critical hazards.

Precautionary statements

General : P103:Read carefully and follow all instructions.
P102:Keep out of reach of children.
P101:If medical advice is needed, have product container or label at hand.

Prevention : -:Not applicable.

Response : -:Not applicable.

Storage : -:Not applicable.

Disposal : -:Not applicable.

Supplemental label elements : Contains 2-methyl-2H-isothiazol-3-one, May produce an allergic reaction.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with : Not applicable.

child-resistant fastenings

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do : None known.

not result in
classification

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Polyalkylene Glycol Ester	-	> 0 - <= 5	SERIOUS EYE DAMAGE/ EYE IRRITATION	-	[1]
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-butyl-.omega.-hydroxy-	-	> 0 - < 4	Eye Irrit. 2, H319	-	[1]
2-methyl-2H-isothiazol-3-one	EC : 220-239-6 CAS : 2682-20-4	> 0 - < 0,0015	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/kg ATE [Inhalation (vapours)] = 0,5 mg/l Skin Sens. 1A, H317: >= 0,0015 % M [Acute] = 10 M [Chronic] = 1	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products : No specific data.

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not

For emergency responders : touch or walk through spilled material. Put on appropriate personal protective equipment.
: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-butyl-.omega.-hydroxy-	DNEL	Long term Oral	0,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	2,9 mg/m ³	Workers	Systemic
	DNEL	Short term Oral	2,5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0,83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	2,9 mg/m ³	Workers	Systemic
	DNEL	Short term Oral	2,5 mg/kg bw/day	General population	Systemic
	DNEL	Long term	0,83 mg/kg	Workers	Systemic

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

		Dermal	bw/day		
	DNEL	Long term Dermal	0,42 mg/kg bw/day	General population	Systemic
2-methyl-2H-isothiazol-3-one	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before

Other skin protection	:	handling this product.
	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	liquid
Color	:	Clear.
Odor	:	Not available.
Odor threshold	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	Not available.
Flammability	:	Not available.
Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	Not available.
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

Relative density : 1
Vapor density : Not available.
Explosive properties : Not available.
Oxidizing properties : Not available.
VOC : 0 %(m)

Particle characteristics

Median particle size : Not applicable.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : No specific data.
- 10.5 Incompatible materials** : No specific data.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
2-methyl-2H-isothiazol-3-one	500 mg/kg	N/A	N/A	0,5 mg/l	N/A

Irritation/Corrosion

Conclusion/Summary

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-methyl-2H-isothiazol-3-one	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
 Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
 Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.
 General : No known significant effects or critical hazards.
 Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.
 11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-butyl-.omega.-hydroxy-			
	Acute EC50 95 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
2-methyl-2H-isothiazol-3-one			
	Acute LC50 0,07 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,18 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.
 Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	-	-	-	-
14.2 UN proper shipping name	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.3 Transport hazard class(es)	-	-	-	-

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

14.4 Packing group	-	-	-	-
14.5. Environmental hazards	No.	No.	No.	No.

Additional information

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

No listed substance

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) -Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	Not determined.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

Full text of abbreviated H statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

H410	Very toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Date of printing : 08-22-2025
Date of issue/ Date of revision : 08-22-2025
Date of previous issue : 00-00-0000
Version : 1.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1017105
Material Description : ISOPROPYL ALCOHOL 99%
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 26

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 6.58 lb/gal Weight % 789 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 100.00 %(m) Weight % 100.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content -
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 100.00 %(m) Weight % 100.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 0.00 %(m) Weight % 0.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 6.58 lb/gal 789 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

HAP (if present above 0.1% by weight)	CASRN	Weight %	Density (lb/gal)
SARA 313 (if present above SARA 313 de minimis threshold)	CASRN	Weight %	Density (lb/gal)
VOC (if present above any regulatory de minimis threshold)	CASRN	Weight %	Density (lb/gal)
Isopropanol	67-63-0	100.00 %	0.785 g/cm3

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

ISOPROPYL ALCOHOL 99%

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : ISOPROPYL ALCOHOL 99%
EC number : Not available.
CAS number : Not available.
Product code : 1017105-3310, 1017105-3110, 1017105-3429, 1017105-4223, 1017105-3419, 1017105-2219, 1017105-1519, 1017105-3410, 1017105-3400, 1017105-3421, 1017105, 1017105-1510, 1017105-3321, 1017105-4225, 1017105-3411, 1017105-3420, 1017105-2210
Product description : Not available.
Product type : liquid
Other means of identification : ISOPROPYL ALCOHOL 99%

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)
Hours of operation : Not available.
Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mono-constituent substance

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 2, H225

Eye Irrit. 2, H319

STOT SE 3, H336 (Narcotic effects)

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms : 

Signal word : Danger

Hazard statements :
H225: Highly flammable liquid and vapor.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.

Precautionary statements

General :
P103: Read carefully and follow all instructions.
P102: Keep out of reach of children.
P101: If medical advice is needed, have product container or label at hand.

Prevention :
P280: Wear eye or face protection.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271: Use only outdoors or in a well-ventilated area.
P261: Avoid breathing vapor.
P264: Wash thoroughly after handling.

Response :
P304: IF INHALED:
P304 + P312: Call a POISON CENTER or doctor if you feel unwell.
P305: IF IN EYES:
P305 + P351 + P338: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337: If eye irritation persists:
P337 + P313: Get medical advice or attention.

- Storage** : P405:Store locked up.
P403 + P233:Store in a well-ventilated place. Keep container tightly closed.
- Disposal** : P501:Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Contains** : Isopropyl alcohol manufacture (strong acid process)
- Supplemental label elements** : Not applicable.
- Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.
- Special packaging requirements**
- Containers to be fitted with child-resistant fastenings** : Not applicable.
- Tactile warning of danger** : Yes, applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	PBT	P	B	T	vPvB	vP	vB
Other hazards which do not result in classification	No	N/A	N/A	No	N/A	N/A	N/A

Other hazards which do : None known.

SECTION 3: Composition/information on ingredients

3.1 Substances : Mono-constituent substance

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Isopropyl alcohol manufacture (strong acid process)	REACH#: 01-2119457558-25-XXXX EC : 200-661-7 CAS : 67-63-0 Index: 603-117-00-0	100	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 (Narcotic effects)	-	[1]

See Section 16 for the full text of the H statements declared above.
There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

[1] Constituent

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	Adverse symptoms may include the following: pain or irritation, watering, redness
Inhalation	:	Adverse symptoms may include the following: nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo,

	unconsciousness
Skin contact	: No specific data.
Ingestion	: No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
Hazardous combustion products	: Decomposition products may include the following materials: carbon dioxide, carbon monoxide

5.3 Advice for firefighters

Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency

personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective

equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c	5.000 kg	50.000 kg

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Isopropyl alcohol manufacture (strong acid process)	National institute of occupational safety and health (2011-02-17). TWA 500 mg/m ³ 200 ppm STEL 1.000 mg/m ³ 400 ppm

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the

performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Isopropyl alcohol manufacture (strong acid process)	DNEL	Long term Oral	26 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	888 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	500 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	319 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	89 mg/m ³	General population	Systemic
	DNEL	Long term Oral	26 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	888 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	500 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	319 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	89 mg/m ³	General population	Systemic

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	liquid [liquid]
Color	:	Colorless.
Odor	:	Faint odor.
Odor threshold	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	82,50 °C Not available.
Flammability	:	Not available.

Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	Not Measured. Flashpoint is estimated to be < 23°C (73°F).
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	Not available.
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	Not available.
Relative density	:	0,79
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	100 %(m)

Particle characteristics

Median particle size	:	Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
10.5 Incompatible materials	:	Reactive or incompatible with the following materials: oxidizing materials
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Isopropyl alcohol manufacture (strong acid process)				
	LD50 Oral	Rat	5.000 mg/kg	-
	LD50 Dermal	Rabbit	12.800 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
Isopropyl alcohol manufacture (strong acid process)	5000 mg/kg	12800 mg/kg	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Isopropyl alcohol manufacture (strong acid process)	Eyes - Moderate irritant	Rabbit	-	24 hrs	-
	Skin - Mild irritant	Rabbit	-		-
	Eyes - Severe irritant	Rabbit	-		-
	Eyes - Moderate irritant	Rabbit	-		-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Isopropyl alcohol manufacture (strong acid process)	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact : No known significant effects or critical hazards.
Ingestion : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following: pain or irritation, watering, redness
Inhalation : Adverse symptoms may include the following: nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.

11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Isopropyl alcohol manufacture (strong acid process)			
	Acute LC50 4.200 mg/l Fresh water	Fish - <i>Rasbora heteromorpha</i>	96 h
	Acute EC50 7.550 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Acute LC50 1.400 mg/l Marine water	Crustaceans - <i>Crangon crangon</i>	48 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Isopropyl alcohol manufacture (strong acid process)	0,05	-	low

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
ISOPROPYL ALCOHOL 99%	No	N/A	N/A	No	N/A	N/A	N/A

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN1219	UN1219	UN1219	UN1219
14.2 UN proper shipping name	Isopropanol (Isopropyl alcohol manufacture (strong acid process))	Isopropanol (Isopropyl alcohol manufacture (strong acid process))	Isopropanol (Isopropyl alcohol manufacture (strong acid process))	Isopropanol (Isopropyl alcohol manufacture (strong acid process))
14.3 Transport hazard class(es)	3	3	3	3

				
14.4 Packing group	II	II	II	II
14.5. Environmental hazards	No.	No.	No.	No.

Additional information

- 14.6 Special precautions for user** : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
- 14.7 Maritime transport in bulk according to IMO instruments** : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]

No listed substance

Other EU regulations

Industrial emissions : Not listed

(integrated pollution prevention and control) - Air

Industrial emissions : Not listed

(integrated pollution prevention and control) -

Water

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

None of the components are listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
P5c

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	All components are listed or exempted.
Canada	:	All components are listed or exempted.
China	:	All components are listed or exempted.
Eurasian Economic Union	:	Russian Federation inventory: All components are listed or exempted.
Japan	:	Japan inventory (CSCL): All components are listed or exempted. Japan inventory (ISHL): All components are listed or exempted.
New Zealand	:	All components are listed or exempted.
Philippines	:	All components are listed or exempted.
Republic of Korea	:	All components are listed or exempted.
Taiwan	:	All components are listed or exempted.
Thailand	:	All components are listed or exempted.
Turkey	:	All components are listed or exempted.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment	:	This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms	:	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number SGG = Segregation Group vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Flam. Liq. 2, H225	On basis of test data
Eye Irrit. 2, H319	Calculation method
STOT SE 3, H336 (Narcotic effects)	Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapor.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Full text of classifications [CLP/GHS]

Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Date of printing : 08-22-2025
Date of issue/ Date of revision : 08-22-2025
Date of previous issue : 00-00-0000
Version : 1.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1286138
Material Description : LOW CONDUCTIVITY BLACK BASE
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 55

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 9.81 lb/gal Weight % 1176 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 55.89 %(m) Weight % 65.86 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content 55.6613 %Weight % 65.6803 Volume %
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 0.00 %(m) Weight % 0.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 44.11 %(m) Weight % 34.14 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 0.00 lb/gal 0 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

HAP (if present above 0.1% by weight)	CASRN	Weight %	Density (lb/gal)
SARA 313 (if present above SARA 313 de minimis threshold)	CASRN	Weight %	Density (lb/gal)
VOC (if present above any regulatory de minimis threshold)	CASRN	Weight %	Density (lb/gal)

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

LOW CONDUCTIVITY BLACK BASE

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : LOW CONDUCTIVITY BLACK BASE
Product code : 1286138-4130, 1286138-4120, 1286138-V25, 1286138, 1286138-5121, 1286138-4221, 1286138-4223, 1286138-3421, 1286138-2210, 1286138-4230
Product description : Not available.
Product type : liquid
Other means of identification : LOW CONDUCTIVITY BLACK BASE

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Hours of operation : Not available.
Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Skin Sens. 1, H317

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H317: May cause an allergic skin reaction.

Precautionary statements

General : P103: Read carefully and follow all instructions.
P102: Keep out of reach of children.
P101: If medical advice is needed, have product container or label at hand.

Prevention : P280: Wear protective gloves.
P261: Avoid breathing vapor.

Response : P362 + P364: Take off contaminated clothing and wash it before reuse.
P302: IF ON SKIN:
P302 + P352: Wash with plenty of water.
P333: If skin irritation or rash occurs:
P333 + P313: Get medical advice or attention.

Storage : -: Not applicable.

Disposal : P501: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Contains : 1,2-benzisothiazol-3(2H)-one
2-methyl-2H-isothiazol-3-one

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain : Not applicable.

**dangerous substances,
mixtures and articles**

Special packaging requirements

Containers to be fitted with : Not applicable.
child-resistant fastenings
Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the : This mixture does not contain any substances that are assessed to be a
criteria for PBT or vPvB PBT or a vPvB.
according to
Regulation (EC) No.
1907/2006, Annex XIII
Other hazards which do : None known.
not result in
classification

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Carbon black	REACH#: 01-2119384822-32-XXXX EC : 215-609-9 CAS : 1333-86-4	>= 25 - <= 50	Not classified.	-	[2]
Alcohols, C12-15, ethoxylated	CAS : 68131-39-5	> 0 - <= 3	Aquatic Acute 1, H400	M [Acute] = 1	[1]
ammonia	REACH#: 01-2119488876-14-XXXX EC : 215-647-6 CAS : 1336-21-6 Index:	> 0 - <= 0,3	Skin Corr. 1B, H314 Aquatic Acute 1, H400	M [Acute] = 1	[1]
1,2-benzisothiazol-3(2H)-one	REACH#: 01-2120761540-60-XXXX EC : 220-120-9 CAS : 2634-33-5 Index: 613-088-00-6	> 0 - < 0,05	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 1.020 mg/kg ATE [Inhalation (dusts and mists)] = 0,05 mg/l Skin Sens. 1A, H317: >= 0,05 % M [Acute] = 1 M [Chronic] = 1	[1]
2-methyl-2H-isothiazol-3-one	EC : 220-239-6 CAS : 2682-20-4	> 0 - < 0,01	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT SE 3, H335 (Respiratory tract	ATE [Oral] = 500 mg/kg ATE [Inhalation (vapours)] = 0,5 mg/l Skin Sens. 1A, H317: >= 0,0015 % M [Acute] = 10 M [Chronic] = 1	[1]

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

			irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410		

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

Substance classified with a health or environmental hazard

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	:	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing

aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	Adverse symptoms may include the following: irritation, redness
Ingestion	:	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide

5.3 Advice for firefighters

Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate

For emergency responders : respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Carbon black	National institute of occupational safety and health (2001-07-01). TWA 3,5 mg/m ³ Form: Fume

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Carbon black	DNEL	Long term Inhalation	0,06 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	1 mg/m ³	Workers	Systemic
Alcohols, C12-15,	DNEL	Long term	25 mg/kg	General	Systemic

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

ethoxylated		Oral	bw/day	population	
	DNEL	Long term Dermal	2080 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	1250 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	294 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	87 mg/m ³	General population	Systemic
	DNEL	Long term Oral	25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2080 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	1250 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	294 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	87 mg/m ³	General population	Systemic
1,2-benzisothiazol-3(2H)-one	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
2-methyl-2H-isothiazol-3-one	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic

	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	liquid [liquid]
Color	:	Black.
Odor	:	None.
Odor threshold	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	100,00 - 4200,00 °C Not available.
Flammability	:	Not available.
Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	9,0 - 10,0
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	1,18
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	0 %(m)

Particle characteristics

Median particle size	:	Not applicable.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : No specific data.
- 10.5 Incompatible materials** : No specific data.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Carbon black				
	LD50 Oral	Rat	15.400 mg/kg	-
Alcohols, C12-15, ethoxylated				
	LD50 Oral	Rat	2.000 mg/kg	-
ammonia				
	LD50 Oral	Rat	350 mg/kg	-
1,2-benzisothiazol-3(2H)-one				
	LD50 Oral	Rat	1.020 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
1,2-benzisothiazol-3(2H)-one	1020 mg/kg	N/A	N/A	N/A	0,05 mg/l
2-methyl-2H-isothiazol-3-one	500 mg/kg	N/A	N/A	0,5 mg/l	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
ammonia	Eyes - Severe irritant	Rabbit	-	0,008 hrs	-

	Eyes - Severe irritant	Rabbit	-		-
	Eyes - Severe irritant	Rabbit	-		-
1,2-benzisothiazol-3(2H)-one	Skin - Mild irritant	Human	-	48 hrs	-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-methyl-2H-isothiazol-3-one	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	Adverse symptoms may include the following: irritation, redness
Ingestion	:	No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.

Long term exposure

Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.

Potential chronic health effects

Conclusion/Summary	:	Not available.
General	:	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Reproductive toxicity	:	No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties	:	Not available.
11.2.2 Other information	:	Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Carbon black			
	Acute EC50 37,563 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
Alcohols, C12-15, ethoxylated			
	Acute LC50 1,4 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 h
	Acute EC50 0,39 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h
	Acute EC50 0,302 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Chronic NOEC 0,083 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 d
ammonia			
	Acute LC50 37 mg/l Fresh water	Fish - <i>Gambusia affinis</i>	96 h

1,2-benzisothiazol-3(2H)-one			
	Acute LC50 0,167 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,097 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Acute LC50 10 - 20 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h
2-methyl-2H-isothiazol-3-one			
	Acute LC50 0,07 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,18 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Alcohols, C12-15, ethoxylated	2,03 - 6,24	-	high

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the

Hazardous waste : sewer unless fully compliant with the requirements of all authorities with jurisdiction.
 : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	-	9006	-	-
14.2 UN proper shipping name	Not regulated.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Not regulated.	Not regulated.
14.3 Transport hazard class(es)	-	9	-	-
14.4 Packing group	-	-	-	-
14.5. Environmental hazards	No.	Yes.	No.	No.

Additional information

ADN : The product is only regulated as a dangerous good when transported in tank vessels.

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]

No listed substance

Other EU regulations

Industrial emissions : Not listed
(integrated pollution prevention and control) - Air

Industrial emissions : Not listed
(integrated pollution prevention and control) - Water

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined.
	:	Japan inventory (ISHL): Not determined.

New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Sens. 1, H317	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1

Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Date of printing : 08-22-2025
Date of issue/ Date of revision : 08-22-2025
Date of previous issue : 05-01-2025
Version : 2.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1457959
Material Description : MIXING DEFOAMER
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 31

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 6.99 lb/gal Weight % 839 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 86.00 %(m) Weight % 87.62 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content -
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 79.00 %(m) Weight % 81.44 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 14.00 %(m) Weight % 12.38 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 5.89 lb/gal 706 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

HAP (if present above 0.1% by weight)	CASRN	Weight %	Density (lb/gal)
SARA 313 (if present above SARA 313 de minimis threshold)	CASRN	Weight %	Density (lb/gal)
VOC (if present above any regulatory de minimis threshold)	CASRN	Weight %	Density (lb/gal)
White mineral oil	8042-47-5	40.00 %	0.84 g/cm3
Petroleum Distillates, Hydrotreated Light	64742-47-8	38.999 %	0.79 g/cm3

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

MIXING DEFOAMER

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : MIXING DEFOAMER
Product code : 1457959-4221, 1457959, 1457959-4223, 1457959-3421, 1457959-2210
Product description : Not available.
Product type : liquid
Other means of identification : MIXING DEFOAMER

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)
Hours of operation : Not available.

Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Eye Irrit. 2, H319

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H319: Causes serious eye irritation.

Precautionary statements

General : P103: Read carefully and follow all instructions.
P102: Keep out of reach of children.
P101: If medical advice is needed, have product container or label at hand.

Prevention : P280: Wear eye or face protection.
P264: Wash thoroughly after handling.

Response : P305: IF IN EYES:
P305 + P351 + P338: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337: If eye irritation persists:
P337 + P313: Get medical advice or attention.

Storage : -: Not applicable.

Disposal : -: Not applicable.

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with : Not applicable.

child-resistant fastenings
Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
White mineral oil (petroleum) A highly refined petroleum mineral oil consisting of a complex combination of hydrocarbons obtained from the intensive treatment of a petroleum fraction with sulfuric acid and oleum, or by hydrogenation, or by a combination of hydrogenation and acid treatment. Additional washing and treating steps may be included in the processing operation. It consists of saturated hydrocarbons having carbon numbers in the range of C15 through C50.	REACH#: 01-2119487078-27-XXXX EC : 232-455-8 CAS : 8042-47-5	>= 25 - <= 50	Not classified.	-	[2]
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-butyl-.omega.-hydroxy-	-	> 0 - <= 10	Eye Irrit. 2, H319	-	[1]
Polyalkylene Glycol Ester	-	> 0 - <= 10	SERIOUS EYE DAMAGE/ EYE IRRITATION	-	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs,

vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

Substance classified with a health or environmental hazard

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	Adverse symptoms may include the following: pain or irritation, watering, redness
Inhalation	:	No specific data.
Skin contact	:	No specific data.

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products : Decomposition products may include the following materials: carbon dioxide, carbon monoxide

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
White mineral oil (petroleum) A highly refined petroleum mineral oil consisting of a complex combination of hydrocarbons obtained from the intensive treatment of a petroleum fraction with sulfuric acid and oleum, or by hydrogenation, of by a combination of hydrogenation and acid treatment. Additional washing and treating steps may be included in the processing operation. It consists of saturated hydrocarbons having carbon numbers in the range of C15 through C50.	National institute of occupational safety and health (2008-01-01). TWA 5 mg/m ³ Form: Mist STEL 10 mg/m ³ Form: Mist

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures

- : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
White mineral oil (petroleum) A highly refined petroleum mineral oil consisting of a complex combination of hydrocarbons obtained from the intensive	DNEL	Long term Oral	25 mg/kg bw/day	General population	Systemic

treatment of a petroleum fraction with sulfuric acid and oleum, or by hydrogenation, or by a combination of hydrogenation and acid treatment. Additional washing and treating steps may be included in the processing operation. It consists of saturated hydrocarbons having carbon numbers in the range of C15 through C50.					
	DNEL	Long term Dermal	217,05 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	164,56 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	93,02 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	34,78 mg/m ³	General population	Systemic
	DNEL	Long term Oral	25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	217,05 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	164,56 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	93,02 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	34,78 mg/m ³	General population	Systemic
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-butyl-.omega.-hydroxy-	DNEL	Long term Oral	0,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	2,9 mg/m ³	Workers	Systemic
	DNEL	Short term Oral	2,5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0,83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	2,9 mg/m ³	Workers	Systemic
	DNEL	Short term Oral	2,5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0,83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,42 mg/kg bw/day	General population	Systemic

PNECs

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls	:	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
<u>Individual protection measures</u>		
Hygiene measures	:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
<u>Skin protection</u>		
Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	liquid
Color	:	Clear.
Odor	:	Not available.
Odor threshold	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	90,00 - 800,00 °C Not available.
Flammability	:	Not available.
Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	Not available.
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	0,84
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	79 %(m)

Particle characteristics

Median particle size	:	Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.

- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : No specific data.
- 10.5 Incompatible materials** : No specific data.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
White mineral oil (petroleum) A highly refined petroleum mineral oil consisting of a complex combination of hydrocarbons obtained from the intensive treatment of a petroleum fraction with sulfuric acid and oleum, or by hydrogenation, or by a combination of hydrogenation and acid treatment. Additional washing and treating steps may be included in the processing operation. It consists of saturated hydrocarbons having carbon numbers in the range of C15 through C50.				
	LD50 Oral	Rat	5.000 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

N/A

Irritation/Corrosion

Conclusion/Summary

- Skin** : Not available.
- Eyes** : Not available.
- Respiratory** : Not available.

Sensitization

Conclusion/Summary

- Skin** : Not available.
- Respiratory** : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following: pain or irritation, watering, redness
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.
General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.

11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-butyl-.omega.-hydroxy-			
	Acute EC50 95 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
White mineral oil (petroleum) A highly refined petroleum mineral oil consisting of a complex combination of hydrocarbons obtained from the intensive treatment of a petroleum fraction with sulfuric acid and oleum, or by hydrogenation, or by a combination of hydrogenation and acid treatment. Additional washing and treating steps may be included in the processing operation. It consists of saturated hydrocarbons having carbon numbers in the range of C15 through C50.	6	-	high

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure

Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	-	-	-	-
14.2 UN proper shipping name	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5. Environmental hazards	No.	No.	No.	No.

Additional information

- 14.6 Special precautions for user** : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk : Not available.
according to IMO instruments

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]

No listed substance

Other EU regulations

Industrial emissions : Not listed
(integrated pollution prevention and control) - Air

Industrial emissions : Not listed
(integrated pollution prevention and control) -
Water

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) -Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Eye Irrit. 2, H319	Calculation method

Full text of abbreviated H statements

H319	Causes serious eye irritation.

Full text of classifications [CLP/GHS]

Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2

Date of printing : 08-22-2025
Date of issue/ Date of revision : 08-22-2025
Date of previous issue : 00-00-0000
Version : 1.0

Notice to reader

Version: 1.0 *Date of issue/Date of revision:* 08-22-2025 *Date of previous issue:* 00-00-0000

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1011536
Material Description : X412 SILICONE BLEND
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 26

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 8.48 lb/gal Weight % 1017 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 80.50 %(m) Weight % 82.01 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content 41.00 %Weight % 41.82 Volume %
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 0.09 %(m) Weight % 0.10 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 19.50 %(m) Weight % 17.99 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 0.04 lb/gal 5 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

	CASRN	Weight %	Density (lb/gal)
HAP (if present above 0.1% by weight)			
SARA 313 (if present above SARA 313 de minimis threshold)			
VOC (if present above any regulatory de minimis threshold)			

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

X412 SILICONE BLEND

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : X412 SILICONE BLEND
Product code : 1011536-2219, 1011536-4221, 1011536-2210, 1011536-3420, 1011536-3320, 1011536-4130, 1011536-3421, 1011536-4230, 1011536, 1011536-4223
Product description : Not available.
Product type : liquid
Other means of identification : X412 SILICONE BLEND

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Hours of operation : Not available.
Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Irrit. 2, H315

Eye Dam. 1, H318

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H315: Causes skin irritation.
H318: Causes serious eye damage.

Precautionary statements

General : P103: Read carefully and follow all instructions.
P102: Keep out of reach of children.
P101: If medical advice is needed, have product container or label at hand.

Prevention : P280: Wear protective gloves.
P280: Wear eye or face protection.
P264: Wash thoroughly after handling.

Response : P362 + P364: Take off contaminated clothing and wash it before reuse.
P305: IF IN EYES:
P305 + P351 + P338: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P305 + P310: Immediately call a POISON CENTER or doctor.

Storage : -: Not applicable.

Disposal : -: Not applicable.

Contains : Alcohols, C12-14-secondary, ethoxylated

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on : Not applicable.

the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.
 Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
 Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Alcohols, C12-14-secondary, ethoxylated	CAS : 84133-50-6	>= 10 - <= 25	Skin Irrit. 2, H315 Eye Dam. 1, H318	-	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

Substance classified with a health or environmental hazard

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation	:	Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	:	Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	Adverse symptoms may include the following: pain, watering, redness
Inhalation	:	No specific data.
Skin contact	:	Adverse symptoms may include the following: pain or irritation, redness, blistering may occur
Ingestion	:	Adverse symptoms may include the following: stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products : No specific data.

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers,

water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

- 6.4 Reference to other sections :** See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures :** Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene :** Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

- Recommendations :** Not available.
- Industrial sector specific solutions :** Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures

: Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an

	approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: liquid [liquid]
Color	: Cloudy Milky
Odor	: Faint odor.
Odor threshold	: Not available.
Melting point/freezing point	: Not available.
Initial boiling point and boiling range	: 100,00 °C Not available.
Flammability	: Not available.
Lower and upper explosion limit	: Lower: Not available. Upper: Not available.
Flash point	:
Auto-ignition temperature	: Not Available
Decomposition temperature	: Not available.

pH	:	7,0 - 10,0
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	1,02
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	0,09 %(m)

Particle characteristics

Median particle size	:	Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.
10.5 Incompatible materials	:	No specific data.
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Conclusion/Summary	:	Not available.

Acute toxicity estimates

N/A

Irritation/Corrosion

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes skin irritation.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following: pain, watering, redness
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following: pain or

Ingestion : irritation, redness, blistering may occur
: Adverse symptoms may include the following: stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.
11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.
Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	-	-	-	-
14.2 UN proper shipping name	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5. Environmental hazards	No.	No.	No.	No.

Additional information

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]

No listed substance

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method

Full text of abbreviated H statements

H315	Causes skin irritation.
H318	Causes serious eye damage.

Full text of classifications [CLP/GHS]

Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2

Date of printing : 08-22-2025
Date of issue/ Date of revision : 08-22-2025
Date of previous issue : 00-00-0000
Version : 1.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1062733
Material Description : N-PROPYL ACETATE
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 11

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 7.49 lb/gal Weight % 899 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 100.00 %(m) Weight % 100.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content -
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 100.00 %(m) Weight % 100.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 0.00 %(m) Weight % 0.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 7.49 lb/gal 899 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

HAP (if present above 0.1% by weight)	CASRN	Weight %	Density (lb/gal)
SARA 313 (if present above SARA 313 de minimis threshold)	CASRN	Weight %	Density (lb/gal)
VOC (if present above any regulatory de minimis threshold)	CASRN	Weight %	Density (lb/gal)
Acetic acid, propyl ester	109-60-4	100.00 %	0.888 g/cm3

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

N-PROPYL ACETATE

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : N-PROPYL ACETATE
EC number : Not available.
CAS number : Not available.
Product code : 1062733, 1062733-205L, 1062733-205LT, 1062733-5538, 1062733-3411, 1062733-4225, 1062733-3410, 1062733-1510, 1062733-4223, 1062733-2210
Product description : Not available.
Product type : liquid
Other means of identification : N-PROPYL ACETATE

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)
Hours of operation : Not available.
Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mono-constituent substance

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 2, H225
Eye Irrit. 2, H319
STOT SE 3, H336 (Narcotic effects)

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms : 

Signal word : Danger

Hazard statements : H225: Highly flammable liquid and vapor.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.

Precautionary statements

General : P103: Read carefully and follow all instructions.
P102: Keep out of reach of children.
P101: If medical advice is needed, have product container or label at hand.

Prevention : P280: Wear eye or face protection.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271: Use only outdoors or in a well-ventilated area.
P261: Avoid breathing vapor.
P264: Wash thoroughly after handling.

Response : P304: IF INHALED:
P304 + P312: Call a POISON CENTER or doctor if you feel unwell.
P305: IF IN EYES:
P305 + P351 + P338: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337: If eye irritation persists:
P337 + P313: Get medical advice or attention.

Storage : P405: Store locked up.

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Disposal : P501: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Contains : propyl acetate

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Yes, applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII :

PBT	P	B	T	vPvB	vP	vB
No	N/A	N/A	No	N/A	N/A	N/A

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.1 Substances : Mono-constituent substance

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
propyl acetate	REACH#: 01-2119484620-39-XXXX EC : 203-686-1 CAS : 109-60-4 Index: 607-024-00-6	100	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 (Narcotic effects) EUH066	-	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

[1] Constituent

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	Adverse symptoms may include the following: pain or irritation, watering, redness
Inhalation	:	Adverse symptoms may include the following: nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness
Skin contact	:	No specific data.

Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.
Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
Hazardous combustion products : Decomposition products may include the following materials: carbon dioxide, carbon monoxide

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c	5.000 kg	50.000 kg

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
propyl acetate	National institute of occupational safety and health (2001-07-01). TWA 849 mg/m ³ 200 ppm STEL 1.060 mg/m ³ 250 ppm

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for

methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
propyl acetate	DNEL	Long term Inhalation	149 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	840 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	420 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	420 mg/m ³	General population	Local
	DNEL	Short term Inhalation	298 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	210 mg/m ³	General population	Local
	DNEL	Long term Inhalation	149 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	840 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	420 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	420 mg/m ³	General population	Local
	DNEL	Short term Inhalation	298 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	210 mg/m ³	General population	Local

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	liquid [liquid]
Color	:	Colorless.
Odor	:	Faint odor.
Odor threshold	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	Not available.
Flammability	:	Not available.

Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	Not Measured. Flashpoint is estimated to be < 23°C (73°F).
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	Not available.
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	Not available.
Relative density	:	0,9
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	100 %(m)

Particle characteristics

Median particle size	:	Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
10.5 Incompatible materials	:	Reactive or incompatible with the following materials: oxidizing materials
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
propyl acetate				
	LD50 Oral	Rat	9.370 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
propyl acetate	9370 mg/kg	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
propyl acetate	Eyes - Mild irritant	Rabbit	-	24 hrs	-
	Skin - Mild irritant	Rabbit	-		-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
propyl acetate	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact : No known significant effects or critical hazards.
Ingestion : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following: pain or irritation, watering, redness
Inhalation : Adverse symptoms may include the following: nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.
General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
propyl acetate	Acute LC50 60 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
propyl acetate	1,4	-	low

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
N-PROPYL ACETATE	No	N/A	N/A	No	N/A	N/A	N/A

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and

any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN1276	UN1276	UN1276	UN1276
14.2 UN proper shipping name	N-PROPYL ACETATE (propyl acetate)	N-PROPYL ACETATE (propyl acetate)	N-PROPYL ACETATE (propyl acetate)	N-PROPYL ACETATE (propyl acetate)
14.3 Transport hazard class(es)	3 	3 	3 	3 
14.4 Packing group	II	II	II	II
14.5. Environmental hazards	No.	Yes.	No.	No.

Additional information

ADN : The product is only regulated as an environmentally hazardous substance when transported in tank vessels.

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk : Not available.

according to IMO instruments

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]

No listed substance

Other EU regulations

Industrial emissions : Not listed
(integrated pollution prevention and control) - Air

Industrial emissions : Not listed
(integrated pollution prevention and control) - Water

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
P5c

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) -Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	All components are listed or exempted.
Canada	:	All components are listed or exempted.
China	:	All components are listed or exempted.
Eurasian Economic Union	:	Russian Federation inventory: All components are listed or exempted.
Japan	:	Japan inventory (CSCL): All components are listed or exempted. Japan inventory (ISHL): Not determined.
New Zealand	:	All components are listed or exempted.
Philippines	:	All components are listed or exempted.
Republic of Korea	:	All components are listed or exempted.
Taiwan	:	All components are listed or exempted.
Thailand	:	All components are listed or exempted.
Turkey	:	All components are listed or exempted.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Flam. Liq. 2, H225	On basis of test data
Eye Irrit. 2, H319	Calculation method
STOT SE 3, H336 (Narcotic effects)	Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapor.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications [CLP/GHS]

Version: 1.0 *Date of issue/Date of revision:* 08-22-2025 *Date of previous issue:* 00-00-0000

Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Date of printing : 08-22-2025
Date of issue/ Date of revision : 08-22-2025
Date of previous issue : 00-00-0000
Version : 1.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1459038
Material Description : OPTICAL BRIGHTENER SOLUTION
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 17

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 8.33 lb/gal Weight % 999 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 75.00 %(m) Weight % 75.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content 74.9999 %Weight % 74.9999 Volume %
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 0.00 %(m) Weight % 0.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 25.00 %(m) Weight % 25.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 0.00 lb/gal 0 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

	CASRN	Weight %	Density (lb/gal)
HAP (if present above 0.1% by weight)			
SARA 313 (if present above SARA 313 de minimis threshold)			
VOC (if present above any regulatory de minimis threshold)			

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

OPTICAL BRIGHTENER SOLUTION

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : OPTICAL BRIGHTENER SOLUTION
Product code : 1459038-2219, 1459038-3421, 1459038, 1459038-2210
Product description : Not available.
Product type : liquid
Other means of identification : OPTICAL BRIGHTENER SOLUTION

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against
Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)
Hours of operation : Not available.
Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Signal word : -
Hazard statements : -:No known significant effects or critical hazards.

Precautionary statements

General : P103:Read carefully and follow all instructions.
P102:Keep out of reach of children.
P101:If medical advice is needed, have product container or label at hand.

Prevention : -:Not applicable.

Response : -:Not applicable.

Storage : -:Not applicable.

Disposal : -:Not applicable.

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.
Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in : None known.

classification

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	:	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing	:	None known.

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

media

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	:	No specific data.

5.3 Advice for firefighters

Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders	:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions	:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill	:	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	:	Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections	:	See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures	:	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations	:	Not available.
Industrial sector specific solutions	:	Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures	:	Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use

of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

- : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection

- : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection

- : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

- : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

- : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	liquid
Color	:	Yellow.
Odor	:	Not available.
Odor threshold	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	100,00 °C Not available.
Flammability	:	Not available.
Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	Not available.
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	1
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	0 %(m)

Particle characteristics

Median particle size	:	Not applicable.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : No specific data.
- 10.5 Incompatible materials** : No specific data.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Conclusion/Summary : Not available.

Acute toxicity estimates

N/A

Irritation/Corrosion

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.

11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	-	-	-	-
14.2 UN proper shipping name	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5. Environmental hazards	No.	No.	No.	No.

Additional information

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

No listed substance

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions : Not listed

(integrated pollution
prevention and control) -
Water

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	All components are listed or exempted.
Canada	:	All components are listed or exempted.
China	:	All components are listed or exempted.
Eurasian Economic Union	:	Russian Federation inventory: All components are listed or exempted.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	All components are listed or exempted.
Philippines	:	All components are listed or exempted.
Republic of Korea	:	All components are listed or exempted.
Taiwan	:	All components are listed or exempted.
Thailand	:	All components are listed or exempted.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

Full text of abbreviated H statements

Not applicable.

Full text of classifications [CLP/GHS]

Not applicable.

Date of printing	:	08-22-2025
Date of issue/ Date of revision	:	08-22-2025
Date of previous issue	:	00-00-0000
Version	:	1.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1011284
Material Description : pH ADJUSTER
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 67

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 8.25 lb/gal Weight % 989 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 100.00 %(m) Weight % 100.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content 91.50 %Weight % 90.585 Volume %
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 0.00 %(m) Weight % 0.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 0.00 %(m) Weight % 0.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 0.00 lb/gal 0 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

HAP (if present above 0.1% by weight)	CASRN	Weight %	Density (lb/gal)
SARA 313 (if present above SARA 313 de minimis threshold)	CASRN	Weight %	Density (lb/gal)
Ammonium Hydroxide	1336-21-6	8.50 %	
VOC (if present above any regulatory de minimis threshold)	CASRN	Weight %	Density (lb/gal)

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

pH ADJUSTER

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : pH ADJUSTER
Product code : 1011284-4221, 1011284-3400NL, 1011284-3400, 1011284-4120, 1011284, 1011284-4223, 1011284-5121, 1011284-2210, 1011284-4202, 1011284-3421
Product description : Not available.
Product type : liquid
Other means of identification : pH ADJUSTER

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Hours of operation : Not available.
Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Corr. 1, H314

Eye Dam. 1, H318

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H314: Causes severe skin burns and eye damage.

Precautionary statements

General : P103: Read carefully and follow all instructions.
P102: Keep out of reach of children.
P101: If medical advice is needed, have product container or label at hand.

Prevention : P280: Wear protective gloves, protective clothing and eye or face protection.

Response : P304: IF INHALED:
P304 + P310: Immediately call a POISON CENTER or doctor.
P301: IF SWALLOWED:
P301 + P310: Immediately call a POISON CENTER or doctor.
P301 + P330 + P331: Rinse mouth. Do NOT induce vomiting.
P303: IF ON SKIN (or hair):
P303 + P361 + P353: Take off immediately all contaminated clothing. Rinse skin with water.
P303 + P310: Immediately call a POISON CENTER or doctor.
P363: Wash contaminated clothing before reuse.
P305: IF IN EYES:
P305 + P351 + P338: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P305 + P310: Immediately call a POISON CENTER or doctor.

Storage : P405: Store locked up.

Disposal : P501: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Contains : ammonia

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Yes, applicable.

Tactile warning of danger : Yes, applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
ammonia	REACH#: 01-2119488876-14-XXXX EC : 215-647-6 CAS : 1336-21-6 Index:	> 0 - <= 10	Skin Corr. 1B, H314 Aquatic Acute 1, H400	M [Acute] = 1	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

Substance classified with a health or environmental hazard

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	Adverse symptoms may include the following: pain, watering, redness
Inhalation	:	No specific data.
Skin contact	:	Adverse symptoms may include the following: pain or irritation, redness, blistering may occur
Ingestion	:	Adverse symptoms may include the following: stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	:	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	:	Decomposition products may include the following materials: nitrogen oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Separate from acids. Keep container tightly closed and sealed until ready for

use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before

	reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
<u>Skin protection</u>	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: liquid [liquid]
Color	: Colorless.
Odor	: strong
Odor threshold	: Not available.
Melting point/freezing point	: Not available.

Initial boiling point and boiling range	:	100,00 °C Not available.
Flammability	:	Not available.
Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	11,0 - 13,0
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	0,99
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	0 %(m)

Particle characteristics

Median particle size	:	Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.
10.5 Incompatible materials	:	Reactive or incompatible with the following materials: acids

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ammonia				
	LD50 Oral	Rat	350 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
ammonia	Eyes - Severe irritant	Rabbit	-	0,008 hrs	-
	Eyes - Severe irritant	Rabbit	-		-
	Eyes - Severe irritant	Rabbit	-		-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes severe burns.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following: pain, watering, redness
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following: pain or irritation, redness, blistering may occur
Ingestion : Adverse symptoms may include the following: stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.
General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.

11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
ammonia	Acute LC50 37 mg/l Fresh water	Fish - <i>Gambusia affinis</i>	96 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN2672	UN2672	UN2672	UN2672
14.2 UN proper shipping name	Ammonia Solutions	Ammonia Solutions	Ammonia Solutions	Ammonia Solutions
14.3 Transport hazard class(es)	8 	8 	8 	8 
14.4 Packing group	III	III	III	III
14.5. Environmental hazards	No.	Yes.	No.	No.

Additional information

- ADN** : The product is only regulated as an environmentally hazardous substance when transported in tank vessels.

- 14.6 Special precautions for user** : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
- 14.7 Maritime transport in bulk according to IMO instruments** : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]

No listed substance

Other EU regulations

Industrial emissions : Not listed
(integrated pollution prevention and control) - Air

Industrial emissions : Not listed
(integrated pollution prevention and control) -
Water

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	All components are listed or exempted.
Canada	:	All components are listed or exempted.
China	:	All components are listed or exempted.
Eurasian Economic Union	:	Russian Federation inventory: All components are listed or exempted.
Japan	:	Japan inventory (CSCL): All components are listed or exempted. Japan inventory (ISHL): Not determined.
New Zealand	:	All components are listed or exempted.
Philippines	:	All components are listed or exempted.
Republic of Korea	:	All components are listed or exempted.
Taiwan	:	All components are listed or exempted.
Thailand	:	All components are listed or exempted.

Turkey : Not determined.
 United States : All components are listed or exempted.
 Viet Nam : Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Corr. 1, H314	On basis of test data
Eye Dam. 1, H318	On basis of test data

Full text of abbreviated H statements

H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.

Full text of classifications [CLP/GHS]

Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Skin Corr. 1	SKIN CORROSION/IRRITATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B

Date of printing : 08-22-2025
 Date of issue/ Date of revision : 08-22-2025
 Date of previous issue : 00-00-0000
 Version : 1.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1017104
Material Description : PROPYLENE GLYCOL
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate 08/22/2025
Version number : 1 . 64

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 8.66 lb/gal Weight % 1039 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 100.00 %(m) Weight % 100.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content -
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 100.00 %(m) Weight % 100.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 0.00 %(m) Weight % 0.00 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 8.66 lb/gal 1039 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

HAP (if present above 0.1% by weight)	CASRN	Weight %	Density (lb/gal)
SARA 313 (if present above SARA 313 de minimis threshold)	CASRN	Weight %	Density (lb/gal)
VOC (if present above any regulatory de minimis threshold)	CASRN	Weight %	Density (lb/gal)
Propylene Glycol	57-55-6	100.00 %	1.036 g/cm3

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

PROPYLENE GLYCOL

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : PROPYLENE GLYCOL
EC number : Not available.
CAS number : Not available.
Product code : 1017104-2210, 1017104-4202, 1017104-3426, 1017104-2219, 1017104-4229, 1017104-3429, 1017104-4221, 1017104-3321, 1017104-4223, 1017104-3411, 1017104-3420, 1017104-4225, 1017104, 1017104-4120, 1017104-3320, 1017104-3400, 1017104-3421, 1017104-1510, 1017104-4230
Product description : Not available.
Product type : liquid
Other means of identification : PROPYLENE GLYCOL

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)
Hours of operation : Not available.
Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mono-constituent substance

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Signal word : -
Hazard statements : -:No known significant effects or critical hazards.

Precautionary statements

General : P103:Read carefully and follow all instructions.
P102:Keep out of reach of children.
P101:If medical advice is needed, have product container or label at hand.

Prevention : -:Not applicable.

Response : -:Not applicable.

Storage : -:Not applicable.

Disposal : -:Not applicable.

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	:	PBT	P	B	T	vPvB	vP	vB
Other hazards which do not result in classification	:	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SECTION 3: Composition/information on ingredients

3.1 Substances : Mono-constituent substance

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
propane-1,2-diol	REACH#: 01-2119456809-23-XXXX EC : 200-338-0 CAS : 57-55-6	100	Not classified.	-	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

[1] Constituent

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	:	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide

5.3 Advice for firefighters

Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders	:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures

: Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
propane-1,2-diol	DNEL	Long term Inhalation	10 mg/m ³	General population	Local
	DNEL	Long term Inhalation	168 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	50 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	10 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	10 mg/m ³	General population	Local
	DNEL	Long term Inhalation	168 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	50 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	10 mg/m ³	Workers	Local

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering

: Good general ventilation should be sufficient to control worker

controls	exposure to airborne contaminants.
<u>Individual protection measures</u>	
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
<u>Skin protection</u>	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: liquid [liquid]
Color	: Colorless.
Odor	: Faint odor.
Odor threshold	: Not available.
Melting point/freezing point	: Not available.

Initial boiling point and boiling range	:	188,20 °C Not available.
Flammability	:	Not available.
Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	Not Measured. Flashpoint is estimated to be >93°C (>200°F).
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	Not available.
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	Not available.
Relative density	:	1,04
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	100 %(m)

Particle characteristics

Median particle size	:	Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.
10.5 Incompatible materials	:	No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
propane-1,2-diol				
	LD50 Oral	Rat	20.000 mg/kg	-
	LD50 Dermal	Rabbit	20.800 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
propane-1,2-diol	20000 mg/kg	20800 mg/kg	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
propane-1,2-diol	Skin - Mild irritant	Woman	-	96 hrs	-
	Skin - Mild irritant	Human	-	168 hrs	-
	Skin - Moderate irritant	Human	-	72 hrs	-
	Eyes - Mild irritant	Rabbit	-		-
	Eyes - Mild irritant	Rabbit	-	24 hrs	-
	Skin - Moderate irritant	Child	-	96 hrs	-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact	:	No known significant effects or critical hazards.
Inhalation	:	No known significant effects or critical hazards.
Skin contact	:	No known significant effects or critical hazards.
Ingestion	:	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.

Long term exposure

Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General	:	No known significant effects or critical hazards.
Carcinogenicity	:	No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.
11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
propane-1,2-diol			
	Acute LC50 710 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 h
	Acute EC50 > 110 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Acute LC50 1.020 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
propane-1,2-diol	-1,07	-	low

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.
Mobility : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
PROPYLENE GLYCOL	N/A	N/A	N/A	N/A	N/A	N/A	N/A

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	-	-	-	-
14.2 UN proper shipping name	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5. Environmental hazards	No.	No.	No.	No.

Additional information

- 14.6 Special precautions for user** : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk : Not available.
according to IMO instruments

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

No listed substance

Other EU regulations

Industrial emissions : Not listed
(integrated pollution prevention and control) - Air

Industrial emissions : Not listed
(integrated pollution prevention and control) - Water

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) -Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia : All components are listed or exempted.

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

Canada	:	All components are listed or exempted.
China	:	All components are listed or exempted.
Eurasian Economic Union	:	Russian Federation inventory: All components are listed or exempted.
Japan	:	Japan inventory (CSCL): All components are listed or exempted. Japan inventory (ISHL): All components are listed or exempted.
New Zealand	:	All components are listed or exempted.
Philippines	:	All components are listed or exempted.
Republic of Korea	:	All components are listed or exempted.
Taiwan	:	All components are listed or exempted.
Thailand	:	All components are listed or exempted.
Turkey	:	All components are listed or exempted.
United States	:	All components are listed or exempted.
Viet Nam	:	All components are listed or exempted.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

Full text of abbreviated H statements

Not applicable.

Full text of classifications [CLP/GHS]

Not applicable.

Date of printing	:	08-22-2025
Date of issue/ Date of revision	:	08-22-2025
Date of previous issue	:	00-00-0000
Version	:	1.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of

Version: 1.0 *Date of issue/Date of revision:* 08-22-2025 *Date of previous issue:* 00-00-0000

suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1014076
Material Description : STARBRITE EXTENDER VARNISH
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 10

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 8.67 lb/gal Weight % 1040 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 34.78 %(m) Weight % 36.44 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content 30.5795 %Weight % 31.8027 Volume %
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 3.65 %(m) Weight % 3.97 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 65.22 %(m) Weight % 63.56 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 0.47 lb/gal 56 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

HAP (if present above 0.1% by weight)	CASRN	Weight %	Density (lb/gal)
SARA 313 (if present above SARA 313 de minimis threshold)	CASRN	Weight %	Density (lb/gal)
VOC (if present above any regulatory de minimis threshold)	CASRN	Weight %	Density (lb/gal)
(2-methoxymethylethoxy)propanol	34590-94-8	3.225 %	0.938 g/cm3
2-aminoethanol	141-43-5	0.40 %	1.017 g/cm3

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

STARBRITE EXTENDER VARNISH

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : STARBRITE EXTENDER VARNISH
Product code : 1014076, 1014076-4230, 1014076-4221, 1014076-3420, 1014076-4223, 1014076-5121
Product description : Not available.
Product type : liquid
Other means of identification : STARBRITE EXTENDER VARNISH

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)
Hours of operation : Not available.

Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Signal word : -
Hazard statements : ..No known significant effects or critical hazards.

Precautionary statements

General : P103:Read carefully and follow all instructions.
P102:Keep out of reach of children.
P101:If medical advice is needed, have product container or label at hand.

Prevention : -:Not applicable.

Response : -:Not applicable.

Storage : -:Not applicable.

Disposal : -:Not applicable.

Supplemental label elements : Contains 2,4,7,9-tetramethyldec-5-yne-4,7-diol, 2-methyl-2H-isothiazol-3-one, May produce an allergic reaction.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
(2-methoxymethylethoxy) propanol	REACH#: 01-2119450011-60-XXXX EC : 252-104-2 CAS : 34590-94-8	> 0 - <= 5	Not classified.	-	[2]
2-aminoethanol	EC : 205-483-3 CAS : 141-43-5 Index:	> 0 - < 1	Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 (Respiratory tract irritation)	ATE [Oral] = 1.720 mg/kg ATE [Dermal] = 1.100 mg/kg ATE [Inhalation (vapours)] = 11 mg/l STOT SE 3, H335: >= 5 %	[1] [2]
2,4,7,9-tetramethyldec-5-yne-4,7-diol	REACH#: 01-2119954390-39-XXXX EC : 204-809-1 CAS : 126-86-3	> 0 - <= 0,3	Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412	-	[1]
2-methyl-2H-isothiazol-3-one	EC : 220-239-6 CAS : 2682-20-4	> 0 - < 0,0015	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/kg ATE [Inhalation (vapours)] = 0,5 mg/l Skin Sens. 1A, H317: >= 0,0015 % M [Acute] = 10 M [Chronic] = 1	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	:	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide

5.3 Advice for firefighters

Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section

Advice on general occupational hygiene : 8).
 Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
(2-methoxymethylethoxy)propanol ((2-Methoxymethylethoxy)-propanol)	EU OEL (2000-06-01). [(2-Methoxymethylethoxy)-propanol] Absorbed through skin.. TWA 308 mg/m3 50 ppm National institute of occupational safety and health (2001-07-01). Absorbed through skin.. TWA 308 mg/m3 50 ppm
2-aminoethanol	EU OEL (2006-02-01). [2-aminoethanol] Absorbed through skin.. TWA 2,5 mg/m3 1 ppm STEL 7,6 mg/m3 3 ppm National institute of occupational safety and health (2008-01-01). Absorbed through skin.. STEL 7,5 mg/m3 3 ppm TWA 2,5 mg/m3 1 ppm

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by

inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
(2-methoxymethylethoxy)propanol	DNEL	Long term Oral	36 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	308 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	283 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	121 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	37,2 mg/m ³	General population	Systemic
	DNEL	Long term Oral	36 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	308 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	283 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	121 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	37,2 mg/m ³	General population	Systemic
2-aminoethanol	DNEL	Long term Inhalation	0,18 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	3 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	1,5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	1,5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	1 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	0,51 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	0,28 mg/m ³	General population	Local
	DNEL	Long term Inhalation	0,18 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	3 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	1,5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	1,5 mg/kg bw/day	General population	Systemic

	DNEL	Long term Inhalation	1 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	0,51 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	0,28 mg/m ³	General population	Local
2,4,7,9-tetramethyldec-5-yne-4,7-diol	DNEL	Long term Oral	0,25 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	5,28 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,76 mg/m ³	Workers	Systemic
	DNEL	Short term Dermal	1,5 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	1,29 mg/m ³	General population	Systemic
	DNEL	Short term Dermal	0,75 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	0,75 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0,5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0,43 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0,25 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	5,28 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,76 mg/m ³	Workers	Systemic
	DNEL	Short term Dermal	1,5 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	1,29 mg/m ³	General population	Systemic
	DNEL	Short term Dermal	0,75 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	0,75 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0,5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0,43 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,25 mg/kg bw/day	General population	Systemic
2-methyl-2H-isothiazol-3-one	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term	0,021 mg/m ³	Workers	Local

		Inhalation			
	DNEL	Long term Inhalation	0,021 mg/m ³	General population	Local
	DNEL	Short term Oral	0,053 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0,043 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0,043 mg/m ³	General population	Local
	DNEL	Long term Oral	0,027 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,021 mg/m ³	Workers	Local

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process

equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	liquid [liquid]
Color	:	Colorless.
Odor	:	Faint odor.
Odor threshold	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	100,00 °C Not available.
Flammability	:	Not available.
Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	Not Measured. Flashpoint is estimated to be >60 to 93°C (>140 to 200°F).
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	8,4 - 9,4
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	1,04
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	3,65 %(m)

Particle characteristics

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

Median particle size : Not applicable.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : No specific data.
- 10.5 Incompatible materials** : No specific data.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-aminoethanol	LD50 Oral	Rat	1.720 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
2-methyl-2H-isothiazol-3-one	500 mg/kg	N/A	N/A	0,5 mg/l	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
(2-methoxymethylethoxy)propanol	Eyes - Mild irritant	Human	-		-
	Eyes - Mild irritant	Rabbit	-	24 hrs	-
	Skin - Mild irritant	Rabbit	-		-

2-aminoethanol	Eyes - Severe irritant	Rabbit	-		-
	Skin - Mild irritant	Rabbit	-		-
2,4,7,9-tetramethyldec-5-yne-4,7-diol	Eyes - Severe irritant	Rabbit	-		-
	Skin - Mild irritant	Rabbit	-		-

Conclusion/Summary

Skin : Not available.
 Eyes : Not available.
 Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
 Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-methyl-2H-isothiazol-3-one	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
 Inhalation : No known significant effects or critical hazards.
 Skin contact : No known significant effects or critical hazards.

Version: 1.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 00-00-0000

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.
General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.

11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
2-aminoethanol			
	Acute LC50 170 mg/l Fresh water	Fish - <i>Carassius auratus</i>	96 h
	Acute LC50 > 100 mg/l Marine water	Crustaceans - <i>Crangon crangon</i>	48 h
	Acute EC50 8,42 mg/l Fresh water	Algae - <i>Desmodesmus subspicatus</i>	72 h
2-methyl-2H-isothiazol-3-one			
	Acute LC50 0,07 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,18 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
(2-methoxymethylethoxy)propanol	0,004	-	low
2-aminoethanol	-1,31	-	low

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	-	9003	-	-
14.2 UN proper shipping name	Not regulated.	SUBSTANCES WITH A FLASH-POINT ABOVE 60 °C AND NOT MORE THAN 100 °C ((2-methoxymethylethoxy)propanol)	Not regulated.	Not regulated.
14.3 Transport hazard class(es)	-	9	-	-
14.4 Packing group	-	-	-	-
14.5. Environmental hazards	No.	Yes.	No.	No.

Additional information

ADN : The product is only regulated as a dangerous good when transported in tank vessels.

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

No listed substance

Other EU regulations

Industrial emissions : Not listed
(integrated pollution prevention and control) - Air

Industrial emissions : Not listed
(integrated pollution prevention and control) -
Water

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) -Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008

[CLP/GHS]

Not classified.

Full text of abbreviated H statements

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 3	AQUATIC HAZARD (LONG-TERM) - Category 3
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Date of printing : 08-22-2025
Date of issue/ Date of revision : 08-22-2025
Date of previous issue : 00-00-0000
Version : 1.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present

Version: 1.0 *Date of issue/Date of revision:* 08-22-2025 *Date of previous issue:* 00-00-0000

unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CERTIFIED PRODUCT DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Number : 1062849
Material Description : VIOLET DISPERSION
Manufacturer Name : INX International Ink Co.
Manufacturer Address : 150 N Martingale Rd, Suite 700, Schaumburg, 60173USA
VersionDate **08/22/2025**
Version number : 1 . 13

II. PHYSICAL AND VOLATILE PROPERTIES

A. Density 9.66 lb/gal Weight % 1159 g/l Volume %
Method Other: Value calculated from certified formulation information from suppliers.

B. Total Volatile Content 68.70 %(m) Weight % 80.04 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

C. Water Content 65.76 %Weight % 76.2816 Volume %
Method Other: Value calculated from certified formulation information from suppliers.

D. Organic Volatiles Content 0.44 %(m) Weight % 0.54 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

E. Nonvolatile Content 31.30 %(m) Weight % 19.96 %(V) Volume %
Method Other: Value calculated from certified formulation information from suppliers.

F. Coating VOC 0.21 lb/gal 25 g/l
Method Other: Value calculated from certified formulation information from suppliers.

III. REGULATED CONSTITUENTS

HAP (if present above 0.1% by weight)	CASRN	Weight %	Density (lb/gal)
Diethylene Glycol Monobutyl Ether	112-34-5	0.44 %	0.9536 g/cm3
SARA 313 (if present above SARA 313 de minimis threshold)	CASRN	Weight %	Density (lb/gal)
Ammonium Hydroxide	1336-21-6	2.50 %	
VOC (if present above any regulatory de minimis threshold)	CASRN	Weight %	Density (lb/gal)
Diethylene Glycol Monobutyl Ether	112-34-5	0.44 %	0.9536 g/cm3

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878 - Spain

SAFETY DATA SHEET

VIOLET DISPERSION

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : VIOLET DISPERSION
Product code : 1062849-4130, 1062849-2210, 1062849, 1062849-4000, 1062849-3000, 1062849-3429, 1062849-4221, 1062849-3421, 1062849-4223, 1062849-3420, 1062849-4230
Product description : Not available.
Product type : liquid
Other means of identification : VIOLET DISPERSION

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Ink and Coatings, Printing

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

INX International Ink Co.
INXGlobalRegulatory@inxintl.com
150 N Martingale Rd, Suite 700
Schaumburg
USA
60173
800.347.4657

e-mail address of person responsible for this SDS : INXGlobalRegulatory@inxintl.com

National contact

Not available.

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Supplier

Telephone number : 800.535.5053 INFOTRAC 24 Hour Spill and Emergency (010-1-352-323-3500 outside of North America)

Hours of operation : Not available.
 Information limitations : Not available.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Irrit. 2, H315

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H315: Causes skin irritation.

Precautionary statements

General	: P103: Read carefully and follow all instructions. P102: Keep out of reach of children. P101: If medical advice is needed, have product container or label at hand.
Prevention	: P280: Wear protective gloves. P264: Wash thoroughly after handling.
Response	: P362 + P364: Take off contaminated clothing and wash it before reuse.
Storage	: -: Not applicable.
Disposal	: -: Not applicable.

Supplemental label elements : Contains 1,2-benzisothiazol-3(2H)-one, May produce an allergic reaction.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.
 Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
ammonia	REACH#: 01-2119488876-14-XXXX EC : 215-647-6 CAS : 1336-21-6 Index:	> 0 - <= 3	Skin Corr. 1B, H314 Aquatic Acute 1, H400	M [Acute] = 1	[1]
2-(2-butoxyethoxy)ethanol	REACH#: 01-2119475104-44-XXXX EC : 203-961-6 CAS : 112-34-5 Index: 603-096-00-8	> 0 - < 1	Eye Irrit. 2, H319	-	[1] [2]
1,2-benzisothiazol-3(2H)-one	REACH#: 01-2120761540-60-XXXX EC : 220-120-9 CAS : 2634-33-5 Index: 613-088-00-6	> 0 - < 0,05	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 1.020 mg/kg ATE [Inhalation (dusts and mists)] = 0,05 mg/l Skin Sens. 1A, H317: >= 0,05 % M [Acute] = 1 M [Chronic] = 1	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	Adverse symptoms may include the following: pain or irritation, watering, redness
Inhalation	:	No specific data.
Skin contact	:	Adverse symptoms may include the following: irritation, redness
Ingestion	:	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	:	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products : Decomposition products may include the following materials: nitrogen oxides

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
2-(2-butoxyethoxy)ethanol	EU OEL (2006-02-01). [2-(2-butoxyethoxy)ethanol] TWA 67,5 mg/m ³ 10 ppm STEL 101,2 mg/m ³ 15 ppm National institute of occupational safety and health (2007-01-01). TWA 67,5 mg/m ³ 10 ppm STEL 101,2 mg/m ³ 15 ppm

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures

: Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
2-(2-butoxyethoxy)ethanol	DNEL	Long term Oral	6,25 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	101,2 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	67,5 mg/m ³	Workers	Local
	DNEL	Long term Oral	6,25 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	101,2 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	67,5 mg/m ³	Workers	Local
1,2-benzisothiazol-3(2H)-one	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
	DNEL	Long term	0,345 mg/kg	General	Systemic

		Dermal	bw/day	population	
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process

equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	liquid [liquid]
Color	:	Purple.
Odor	:	None.
Odor threshold	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	100,00 °C Not available.
Flammability	:	Not available.
Lower and upper explosion limit	:	Lower: Not available. Upper: Not available.
Flash point	:	
Auto-ignition temperature	:	Not Available
Decomposition temperature	:	Not available.
pH	:	Not available.
Viscosity	:	Dynamic Not available. : Kinematic Not available. :
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	1,16
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	0,44 %(m)

Particle characteristics

Median particle size	:	Not applicable.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : No specific data.
- 10.5 Incompatible materials** : No specific data.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ammonia				
	LD50 Oral	Rat	350 mg/kg	-
2-(2-butoxyethoxy)ethanol				
	LD50 Oral	Rat	4.500 mg/kg	-
	LD50 Dermal	Rabbit	2.700 mg/kg	-
1,2-benzisothiazol-3(2H)-one				
	LD50 Oral	Rat	1.020 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
2-(2-butoxyethoxy)ethanol	4500 mg/kg	2700 mg/kg	N/A	N/A	N/A
1,2-benzisothiazol-3(2H)-one	1020 mg/kg	N/A	N/A	N/A	0,05 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
ammonia	Eyes - Severe irritant	Rabbit	-	0,008 hrs	-

Version: 2.0

Date of issue/Date of revision: 08-22-2025

Date of previous issue: 05-01-2025

	Eyes - Severe irritant	Rabbit	-		-
	Eyes - Severe irritant	Rabbit	-		-
2-(2-butoxyethoxy)ethanol	Eyes - Moderate irritant	Rabbit	-	24 hrs	-
	Eyes - Severe irritant	Rabbit	-		-
1,2-benzisothiazol-3(2H)-one	Skin - Mild irritant	Human	-	48 hrs	-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes skin irritation.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following: pain or irritation, watering, redness
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following: irritation, redness
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.
General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.
11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
ammonia			
	Acute LC50 37 mg/l Fresh water	Fish - <i>Gambusia affinis</i>	96 h
2-(2-butoxyethoxy)ethanol			
	Acute LC50 1.300 mg/l Fresh water	Fish - <i>Lepomis macrochirus</i>	96 h
1,2-benzisothiazol-3(2H)-one			
	Acute LC50 0,167 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 h
	Acute EC50 0,097 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 h
	Acute LC50 10 - 20 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i>	48 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2-(2-butoxyethoxy)ethanol	1	-	low

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	-	9006	-	-
14.2 UN proper shipping name	Not regulated.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Not regulated.	Not regulated.
14.3 Transport hazard class(es)	-	9	-	-
14.4 Packing group	-	-	-	-
14.5. Environmental hazards	No.	Yes.	No.	No.

Additional information

ADN : The product is only regulated as a dangerous good when transported in tank vessels.

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
2-(2-butoxyethoxy)ethanol	> 0 - < 1	55 [Consumer paint]

Other EU regulations

Industrial emissions : Not listed

(integrated pollution prevention and control) - Air

Industrial emissions : Not listed

(integrated pollution prevention and control) - Water

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Irrit. 2, H315	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1A	SKIN SENSITIZATION - Category 1A

Date of printing : 08-22-2025
Date of issue/ Date of revision : 08-22-2025
Date of previous issue : 05-01-2025
Version : 2.0

Notice to reader

Version: 2.0 **Date of issue/Date of revision:** 08-22-2025 **Date of previous issue:** 05-01-2025

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET

Classification according to the regulation OSHA 29 CFR 1910.1200 HCS 2012

Issuing Date 04-Sep-2019

Revision date 04-Sep-2019

Revision Number 6

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product name PLATE KOTE 263 KOSHER
Product code PK263

Recommended use of the chemical and restrictions on use

Recommendations on Use Industrial use
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Michelman, Inc.
9080 Shell Road
Cincinnati, Ohio 45236
(513)793-7766

Emergency Telephone Number

Emergency Telephone CHEMTREC: +1-703-741-5970 (INTERNATIONAL)
1-800-424-9300 (NORTH AMERICA)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2

Signal word WARNING

Hazard statements Harmful if swallowed
CAUSES SKIN IRRITATION
Causes serious eye irritation

Symbols/Pictograms



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Specific treatment (see supplemental first aid instructions on this label)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

IF ON SKIN: Wash with plenty of soap and water

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)

Not applicable

OTHER INFORMATION

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formulas are confidential and proprietary. Therefore, a percent range is provided for the concentration of each classified component in this mixture.

Chemical name	CAS No.	Weight-%	GHS Classification
Trade secret		10-30	Eye Irrit. 2B (H320) Skin Irrit. 2 (H315) Aquatic Acute 3 (H402)

4. FIRST AID MEASURES

FIRST AID MEASURES

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician.
Skin contact	Wash off immediately with soap and plenty of water. Consult a physician if necessary.
Inhalation	Remove to fresh air. If symptoms persist, call a physician.
Ingestion	Rinse mouth. If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects No information available.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Extinguishing media which must not be used for safety reasons

None.

Specific hazards arising from the chemical

No information available.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation. Avoid contact with eyes, skin and clothing. Use personal protective equipment as required.
Environmental precautions	Do not allow into any sewer, on the ground or into any body of water.
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin and clothing. Use personal protective equipment as required.

Conditions for safe storage, including any incompatibilities

Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep from freezing.
Incompatible Products	None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Exposure guidelines - U.S.</u>	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Measures	Showers Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection	Tight sealing safety goggles.
Skin and body protection	Long sleeved clothing. Protective gloves.
Respiratory protection	No special protective equipment required.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	liquid
Appearance	Off-white

Odor	No information available
Freezing Point	0 °C
Odor Threshold	No information available
Vapor Pressure	No information available
Vapor Density	No information available
pH	8.5-9.5
Density	8.58 lb/gal
Melting Point / Melting Range	No information available
Boiling Point / Boiling Range	No data available
Flash Point	Not flammable
Evaporation Rate	No data available
Flammability (solid, gas)	No data available
Flammability Limit in Air	
Upper Flammability Limit	No information available
Lower Flammability Limit	No information available
Specific Gravity	1.02-1.03
Water Solubility	Soluble in water
Partition Coefficient: n-octanol/water	No information available
Autoignition Temperature	No data available
Decomposition Temperature	No information available
Viscosity	24-32 seconds EZ2

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Do not freeze

Incompatible materials

None known based on information supplied.

Hazardous decomposition products

None known based on information supplied

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	Not an expected route of exposure.
Eye contact	Irritating to eyes.
Skin contact	Irritating to skin.
Ingestion	Harmful if swallowed.

Acute toxicity

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Trade secret	> 5000 mg/kg (Rat)	-	-

Information on toxicological effects

Symptoms	None known.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity	Contains no ingredients above reportable quantities listed as a carcinogen
Irritation	Irritating to eyes and skin.
Sensitization	None known based on information supplied.
Mutagenic Effects	None known based on information supplied.
Reproductive toxicity	None known based on information supplied.
STOT - single exposure	None known based on information supplied
STOT - repeated exposure	None known based on information supplied
Aspiration Hazard	None known based on information supplied.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	1920 mg/kg
ATEmix (dermal)	51924 mg/kg
ATEmix (inhalation-dust/mist)	6.6 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

19.94715 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

<u>Persistence and degradability</u>	Persistence and degradability is not known based on information supplied.

<u>Mobility</u>	The mobility of this product has not been determined

<u>Bioaccumulation</u>	Bioaccumulation potential is not known based on information supplied

Other adverse effects

Endocrine system	Contains no substances above reportable quantities listed as an endocrine disrupter.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging

Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION**DOT**

Not regulated

IATA

Not regulated

IMDG

Not regulated

15. REGULATORY INFORMATION**International Inventories**

TSCA (USA)	Complies
DSL (Canada)	Complies
ENCS (Japan)	Complies
IECSC (China)	Complies
KECL (Korea)	Complies
PICCS (Philippines)	Complies
AICS (Australia)	Complies
ERMA (New Zealand)	Complies
Taiwan	Does not comply

Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical name	SARA 313 - Threshold Values %
Zinc compounds - RR-00578-7	1.0
DIETHYLENE GLYCOL MONOETHYL ETHER - 111-90-0	1.0
SODIUM NITRATE - 7631-99-4	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

Clean Water Act

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Zinc compounds RR-00578-7		X		-

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) and Volatile Organic Compounds (VOCs) (see 40 CFR 61)

Chemical name	CAS No.	Weight-%	VOC Chemical
PROPYLENE GLYCOL	57-55-6	.5456	Yes
DIETHYLENE GLYCOL MONOETHYL ETHER	111-90-0	.2475	Yes
Proprietary VOC 1		.0891	Yes
SORBIC ACID	110-44-1	.015	Yes

Chemical name	CAS No.	Weight-%	HAPS chemical
DIETHYLENE GLYCOL MONOETHYL ETHER	111-90-0	.2475	Yes

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

16. OTHER INFORMATION

HMIS **Health hazard** 2 **Flammability** 0 **Stability** 0 **PPE** B

Prepared by Michelman, Inc.

Revision date 04-Sep-2019

Reason for revision No information available

Disclaimer

The information provided in this data sheet is based on present scientific and technical knowledge and is accurate to the best of Michelman's knowledge, information, and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal, and release. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process. Michelman makes no warranty of any kind, express or implied, including warranties of merchantability or fitness for a particular purpose, nor any warranty concerning the safe use of this material in the buyer's/user's process or in combination with other substances. In no case shall the descriptions, information, data, or designs provided be considered a part of Michelman's terms and conditions of sale. Since the conditions for the use of the material are not under Michelman's control, it is the buyer's/user's duty to determine the conditions necessary for the safe use of the material. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the material.

California Proposition 65



WARNING! This product can expose you to chemicals including those listed below, which is [are] known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Chemical name	California Proposition 65
ETHYL ACRYLATE 140-88-5	Carcinogen

Plate Kote™ 263

USAGE Plate Kote™ 263 provides gloss, water resistance, grease resistance, and hot stamp resistance when applied by the recommended method at a coat weight of 1.2 to 1.4 wet pounds per thousand square feet on printed, clay-coated substrates.

DESCRIPTION Water-based overprint varnish for paper plates

PHYSICAL PROPERTIES The following properties are typical but should not be considered specifications:

Appearance:	Off-white to slightly tan liquid
Solids Type:	Formulated Polymer
EZ Cup Viscosity (sec) :	24 - 32
Cup Number:	2
pH:	8.5 - 9.5
Shelf Life (months) :	The product has a shelf life of 3 months from date of manufacture when storage and handling instructions are followed.

SITE OF MANUFACTURE USA (PK263)
(and PRODUCT CODE)

APPLICATION DATA Plate Kote™ 263 may be applied by flexo, gravure (direct and indirect), and rod

Revised 15 September 2022

The following information for this product, specific to each site of manufacture, is available upon request:

- Material Safety Data Sheets in various formats and languages (includes global chemical inventory listing)
- Food Contact Declaration of Compliance (if applicable)

Plate Kote™ 263

Americas

Michelman Inc.
Tel: +1 513 793 7766
Fax: +1 513 793 2504

China

Michelman New Material
(Shanghai) Co., Ltd.
Tel: +86 21 2098 6880
Fax: +86 21 3810 3811

India

Michelman Private Limited
Tel: +91 22 28672783
Fax: +91 22 28672784

Japan

Michelman Japan LLC
Tel: +81 03 45 70 64 08
Fax: +81 03 45 80 74 66

Luxembourg

Michelman International SARL
Tel: +352 26 39 44 1
Fax: +352 26 39 44 80

Singapore

Michelman Asia-Pacific Pte. Ltd.
Tel: +65 6861 2822
Fax: +65 6861 2262

The facts stated and the recommendations contained herein are based on our own research and the research of others, and are believed to be accurate. However, no guarantee of their accuracy is made because we cannot cover every possible application for our products nor anticipate every variation encountered in manufacturing equipment and methods. The products discussed are sold without warranty, express or implied and Seller disclaims any warranty of merchantability or fitness for a particular purpose in connection with the purchase of its products. It is recommended that purchasers conduct their own tests to determine the suitability of such products for their particular purpose. Seller shall not be liable for any injury, loss or damage, direct or consequential arising out of the use of or the inability to use the product. Statements concerning the possible use of our products are not intended as recommendations to use our products in the infringement of any patent and our products are sold without warranty of non-infringement.

© 2022 MICHELMAN, INC. All rights reserved. ® Reg. U.S. Pat. TM Off.
All marks contained herein are registered or owned by Michelman, Inc.
Michelman is ISO 9001:2015 certified.

SAFETY DATA SHEET**Advantra® PHC-8420**

Version 1.2

Revision Date 10/24/2022

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Advantra® PHC-8420
Product code : 100000003177

Manufacturer or supplier's details

Company : H.B. Fuller Company
Address : 1200 Willow Lake Boulevard
Vadnais Heights, MN 55110
Telephone : 1-888-423-8553

Medical Emergency Phone Number (24 Hours): 1-888-853-1758

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

Recommended use of the chemical and restrictions on use

Recommended use : Hot melt adhesive
Restrictions on use : For industrial use only.

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Appearance	Solid form
Color	off-white
Odor	characteristic

GHS Classification

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Potential Health Effects

Inhalation : Vapors/fumes may be irritating at application temperatures.

Skin : Contact with hot product will cause thermal burns.

Aggravated Medical Condition : None known.

Carcinogenicity:**IARC** No ingredient of this product present at levels greater than or

SAFETY DATA SHEET**Advantra® PHC-8420**

Version 1.2

Revision Date 10/24/2022

OSHA

equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTPNo component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

Hazardous ingredients

Chemical name	CAS-No.	Concentration [%]
Paraffin waxes and Hydrocarbon waxes	8002-74-2	10 - 20
bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate	52829-07-9	0.1 - 1

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

- General advice : Show this material safety data sheet to the doctor in attendance.
- If inhaled : Move to fresh air.
If symptoms persist, call a physician.
- In case of skin contact : Wash off with soap and water.
Cool melted product on skin with plenty of water. Do not remove solidified product.
- In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- If swallowed : Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this SDS.
- Notes to physician : Use mineral oil to soften and loosen product for removal.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : Do NOT use water jet.
- Specific hazards during fire : Burning produces irritant fumes.

SAFETY DATA SHEET**Advantra® PHC-8420**

Version 1.2

Revision Date 10/24/2022

fighting

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
Methods and materials for containment and cleaning up : Allow to solidify.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Avoid breathing vapors/fumes of heated product. Prevent contact with molten product.
Conditions for safe storage : Keep in a dry, cool place.
Materials to avoid : No special restrictions on storage with other products.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Ingredients with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Paraffin waxes and Hydrocarbon waxes	8002-74-2	TWA	2 mg/m3	ACGIH
		TWA	2 mg/m3	OSHA P0
		TWA (Fumes)	2 mg/m3	ACGIH
		TWA (Fumes)	2 mg/m3	NIOSH REL
		PEL (Fumes)	2 mg/m3	CAL PEL
		TWA (Fumes)	2 mg/m3	OSHA P0

Engineering measures : At the application temperature, use of local exhaust over the premelting reservoir is encouraged.

Personal protective equipment

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory

SAFETY DATA SHEET**Advantra® PHC-8420**

Version 1.2

Revision Date 10/24/2022

equipment.

Filter type : Particulates type

Hand protection

Material : Protective gloves

Remarks : When handling hot material, use heat resistant gloves.

Eye protection : Safety glasses

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Solid form
Color : off-white
Odor : characteristic
Odor Threshold : no data available
pH : Not applicable
Boiling point/boiling range : is not determined
Flash point : Not applicable
Evaporation rate : is not determined
Flammability (solid, gas) : Not classified as a flammability hazard

Upper explosion limit : Upper flammability limit
is not determinedLower explosion limit : Lower flammability limit
is not determined

Vapor pressure : is not determined

Relative vapor density : is not determined

Density : 0.98 g/cm³

Solubility(ies)

Water solubility : insoluble

Partition coefficient: n-
octanol/water : no data available

Autoignition temperature : is not determined

Thermal decomposition : Carbon monoxide, carbon dioxide and unburned
hydrocarbons (smoke).

Viscosity

Viscosity, kinematic : Not applicable

SECTION 10. STABILITY AND REACTIVITY

SAFETY DATA SHEET**Advantra® PHC-8420**

Version 1.2

Revision Date 10/24/2022

Chemical stability	: The product is chemically stable.
Possibility of hazardous reactions	: Hazardous polymerization does not occur.
Conditions to avoid	: Protect from frost.
Hazardous decomposition products	: Stable under normal conditions. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Product:**

Acute inhalation toxicity	: Acute toxicity estimate : > 200 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method

Components:**bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate:**

Acute inhalation toxicity	: LC50 Rat: 0.5 mg/l Exposure time: 4 h Test atmosphere: dust/mist

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity**Product:**

Genotoxicity in vitro	: Remarks: no data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT-single exposure

SAFETY DATA SHEET**Advantra® PHC-8420**

Version 1.2

Revision Date 10/24/2022

No data available

STOT-repeated exposure

No data available

Aspiration toxicity

No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

No data available

Persistence and degradability

No data available

Bioaccumulative potential**Mobility in soil**

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues

: To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Solidify and dispose of in an approved landfill. Consult state, local or provincial authorities for more restrictive requirements.
The hazard and precautionary statements displayed on the label also apply to any residues left in the container.

SECTION 14. TRANSPORT INFORMATION**International Regulations****UNRTDG**

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

SAFETY DATA SHEET**Advantra® PHC-8420**

Version 1.2

Revision Date 10/24/2022

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation**49 CFR**

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION**SARA 311/312 Hazards** : No SARA Hazards**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.**Clean Air Act**

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

US State Regulations**California Prop 65** Please contact Supplier for more information.**The ingredients of this product are reported in the following inventories:****TSCA** All substances listed as active on the TSCA inventory**DSL** All components of this product are on the Canadian DSL**KECI** On the inventory, or in compliance with the inventory**PICCS** On the inventory, or in compliance with the inventory**IECSC** On the inventory, or in compliance with the inventory**NZIoC** On the inventory, or in compliance with the inventory**Inventories Legend** TSCA (USA), DSL (Canada), REACH(Europe), AIIIC (Australia), NZIoC (New Zealand), ENCS (Japan), KECI (Korea), PICCS (Philippines), IECSC (China), TWINV (Taiwan)

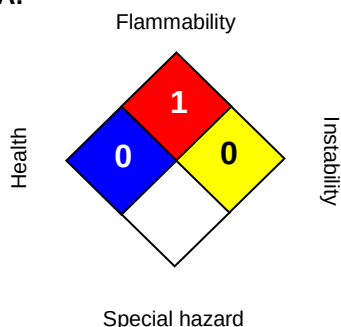
SAFETY DATA SHEET
Advantra® PHC-8420

Version 1.2

Revision Date 10/24/2022

SECTION 16. OTHER INFORMATION

Prepared by: Global Regulatory Office - phone: 1-651-236-5842 - email: msds.request@hbfuller.com

Further information
NFPA:

HMIS III:

HEALTH	0
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to the H.B. Fuller Company from its suppliers, and because the H.B. Fuller Company has no control over the conditions of handling and use, the H.B. Fuller Company makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and the H.B. Fuller Company assumes no responsibility for use or reliance thereon. It is the responsibility of the user of H.B. Fuller Company products to comply with all applicable federal, state and local laws and regulations.



H.B. Fuller Company
1200 Willow Lake Boulevard
St. Paul, Minnesota 55110-5101
Telephone: (651) 236-5900

Correspondence to:
P.O. Box 64683
St. Paul, Minnesota 55164-0683

VOC/HAP Product Data Sheet

Date	August 8, 2023
Contact	Reg.Request@HBFuller.com
Product Name/Number	Advantra® PHC-8420
VOC (weight % as supplied)*:	0 %
Solids (weight %):	100 %
Product Density:	0.98 g/cm ³

HAP Component**

CAS

Weight Percent %

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

If Methylene diphenyl diisocyanate (MDI) (CAS #101-68-8) is listed as a HAP in the above table, it is not considered a contributor to the overall VOC. MDI is a low vapor pressure material (0.0003 mm Hg at 110 degrees F). Only trace quantities of less than 0.1 ppm (parts per million) have ever been measured inside the exhaust ventilation system at manufacturing temperatures. The yearly estimated MDI emissions would be much less than one pound per year.

*The VOC information presented here is calculated based on the theoretical VOC contribution of each ingredient in each formulation. The VOC information for each ingredient is either measured using EPA Method 24 (40 CFR 60 Appendix A), or per composition data as reported to us by the supplier (40 CFR 63.827(b)). Variations in actual application and cure methods may lower reportable VOC emissions significantly.

**HAP information presented here is based on composition disclosures from our raw material suppliers, prior to processing, in our manufacturing facilities. We do not routinely quantitatively analyze for HAP constituents in our finished products. We will report the upper limit of all HAPs, of which we are aware, down to the National Emission Standards (NESHAP) reporting limit.

SAFETY DATA SHEET



Date issued : 07/15/2022
SDS number : GHS H788A

1. Identification

Product code: MICA H-788-A

Relevant identified uses: Coating for films, foils and paper.

Refer to Section 15 for any use restrictions that may apply

Manufacturer / Supplier

Mica Corporation
9 Mountain View Drive
Shelton, CT 06484
USA

Emergency contact: Tammy Cheng

E-Mail: MSDS@mica-corp.com

Emergency telephone number (24 hour)

+1-203-922-8888

2. Hazard identification

Classification of the substance or mixture

Health hazards:

Skin Sensitization, Category 1

Eye Irritation, Category 2A

Label elements



Exclamation
mark

Signal word: WARNING

Hazard statement(s)

H319: Causes serious eye irritation.

H317: May cause an allergic skin reaction.

Precautionary statement(s)

Prevention:

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P280: Wear protective gloves.

P264: Wash thoroughly after handling.

P272: Contaminated work clothing should not be allowed out of the workplace.

P280: Wear eye/face protection.

Response:

P302+P350: IF ON SKIN: Gently wash with plenty of soap and water.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P363: Wash contaminated clothing before reuse.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice/attention.

Disposal:

SAFETY DATA SHEET



Date issued : 07/15/2022
SDS number : GHS H788A

P501: Dispose of contents/containers in accordance with local, state, federal and/or international laws.

Hazards not otherwise classified: None known.

Comments: 19% of the mixture consists of ingredients of unknown acute dermal and acute inhalation toxicity

3. Composition/information on ingredients

Chemical name	% w/w	CAS No.
Aziridine, homopolymer (Polyethyleneimine)	19	9002-98-6

4. First-aid measures

Eye: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

Skin: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

Ingestion: If swallowed, do not induce vomiting. If conscious and alert, give two glasses of water. Seek medical attention.

Inhalation: IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.

Most important symptoms and effects, both acute and delayed

Acute effects: None known.

Chronic effects: None known.

Comments: Immediate medical attention/special treatment - No information available

5. Fire-fighting measures

General hazard: Material will not burn. Containers can build up pressure if exposed to heat (fire).

Suitable extinguishing media: Water spray (fog), foam, dry chemical, carbon dioxide. Do not use water jet.

Hazardous combustion products: Oxides of Carbon and Nitrogen.

Fire fighting equipment: As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

6. Accidental release measures

Small spill: Wear suitable protective clothing. Absorb liquid and place in sealed container for disposal. After removal, flush contaminated area thoroughly with water.

Large spill: Wear suitable protective clothing. Dike area to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material on adsorbent, such as sawdust or vermiculite, and sweep into closed containers for disposal. After all visible traces have been removed thoroughly wet vacuum the area. Do not flush to sewer. If area of spill is porous, remove as much contaminated earth and gravel, etc. as necessary and place in closed containers for disposal.

Environmental precautions

Water spill: Keep material out of storm sewers and ditches which lead to waterways.

Special protective equipment: Use personal protective equipment. No further information is available.

7. Handling and storage

General procedures: Wash hands before eating and wash before reuse. Avoid contact with skin and eyes.

Precautions for safe handling: Avoid contact with eyes, skin, and clothing. Handle as an industrial chemical. Keep container tightly closed.

SAFETY DATA SHEET



Date issued : 07/15/2022
SDS number : GHS H788A

Conditions for safe storage: Keep from freezing. Store in a dry, cool and well ventilated place.

Storage temperature: 5°C Minimum to 50°C Maximum

Notes: Reason for storage: Quality

8. Exposure controls/personal protection

Appropriate engineering controls: Use with local exhaust ventilation.

Individual protection measures, such as personal protective equipment

Eye / face protection: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

Skin protection - hand protection: Wear chemically resistant gloves.

Respiratory protection: If used as directed, respiratory protection is not required. However, if used in a poorly ventilated area, wear a properly fitted respirator (NIOSH approved) during exposure.

Skin protection - other: Clean long legged, long sleeve work cloths.

Occupational hygiene practices: Handle in accordance with good industrial hygiene and safety practice.

Other use precautions: Eyewash station and safety shower must be readily available in work area. Wash thoroughly after handling.

9. Physical and chemical properties

Physical state: Liquid

Appearance: Clear to Light yellow

Odor: Low odor.

Odor threshold: No test data available.

pH: ~ 9 to 11

Melting point: Not Applicable

Freezing point: 0°C

Initial boiling point and boiling range: 100°C

Flash point: Not Applicable

Evaporation rate (n-butyl acetate = 1): No test data available.

Explosion limit / flammability limit notes: LEL UEL - No test data available
Flammability (solid/gas): Not applicable to liquids.

Vapor pressure: No test data available.

Relative vapor density: No test data available.

Relative density: 1.01 to 1.050 @ 25°C

Notes: (relative density)

Solubility: Miscible

Partition coefficient n-octanol/water (logarithmic value): No test data available.

Auto-ignition temperature: No test data available.

Decomposition temperature: No test data available.

Dynamic viscosity: < 100 Centipoise

Percent volatiles: 78-87

VOC content: 0 %

SAFETY DATA SHEET



Date issued : 07/15/2022
SDS number : GHS H788A

10. Stability and reactivity

Reactivity: No

Dangerous polymerization: Will not occur.

Chemical stability: Stable

Conditions to avoid: None known.

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Incompatible materials: Acidic materials

11. Toxicological information**Acute toxicity**

Acute dermal toxicity LD₅₀: No test data available.

Acute oral toxicity LD₅₀: 2632 Acute Toxicity Estimate

Acute inhalation toxicity LC₅₀: No test data available.

Skin corrosion / irritation: No test data available.

Serious eye damage / irritation: No test data available.

Respiratory or skin sensitization: No test data available.

Germ cell mutagenicity: No test data available.

Carcinogenicity

IARC: No

NTP: No

OSHA: No

Notes: No test data available.

Reproductive toxicity: No test data available.

Specific Target Organ Toxicity - single exposure: None Expected.

Specific Target Organ Toxicity - repeated exposure: None Expected.

Aspiration hazard: Not expected

Comments: Likely routes of exposure: Skin Contact, Skin Absorption, Eyes, Inhalation, Ingestion

12. Ecological information

Ecotoxicological information: No test data available.

Persistence and degradability: No test data available.

Bioaccumulative potential: No test data available.

Mobility in soil: No test data available.

General comments: No test data available.

13. Disposal considerations

Disposal methods: Dispose of in accordance with local/state/federal/regional/international regulations.

Empty container: Fully remove contents. May wash with soap and water. Dispose of container in accordance with local/state/federal/regional/international regulations.

SAFETY DATA SHEET



Date issued : 07/15/2022
SDS number : GHS H788A

RCRA hazard class: Not Regulated

14. Transport information

USA Department of Transport Regulations (DOT)

UN proper shipping name: Not Regulated

ICAO / IATA - air

UN proper shipping name: Not Regulated

IMO / IMDG - International

UN proper shipping name: Not Regulated

Canadian Transport of Dangerous Goods Regulations (TDG)

UN proper shipping name: Not Regulated

15. Regulatory information

UNITED STATES

SARA Section 311/312 Hazard Categories

311/312 Health hazards: Refer to Section 2 for hazard categories, where applicable.

311/312 Physical hazards: Refer to Section 2 for hazard categories, where applicable.

313 reportable ingredients: None present, or none present at or above the reporting concentration.

EPCRA Section 302 Extremely Hazardous Substances

EPCRA Status: Not Applicable

CERCLA Hazardous Substances and Reportable Quantities (RQ)

CERCLA rq: None present, or none present in regulated quantities.

TSCA (The Toxic Substances Control Act)

TSCA regulatory: All chemicals in this product are listed on the TSCA Inventory.

California Proposition 65:  **WARNING:** This product can expose you to chemicals including [see table below], which is [are] known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

Chemical name	% w/w	Listed
Formaldehyde	0.0098	● Cancer
Ethyleneimine (Aziridine)	0.0000034	● Cancer

CANADA

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL): All chemicals in this product are listed in the DSL inventory.

16. Other information

Approved by: TC

Date Prepared: 07/15/2022

SAFETY DATA SHEET

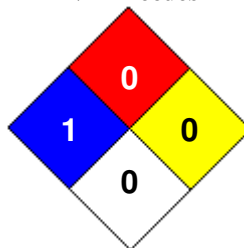


Date issued : 07/15/2022
SDS number : GHS H788A

HMIS rating

Health	*	2
Flammability		0
Physical hazard		0
Personal protection		B

NFPA codes



Manufacturer disclaimer: To the best of our knowledge, the information contained herein is accurate. However, neither Mica Corporation, or any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

Product Information

9 MOUNTAIN VIEW DRIVE, SHELTON, CT 06484 USA ■ +1 (203) 922-8888 ■ INFO@MICA-CORP.COM ■ WWW.MICA-CORP.COM



MICA H-788

WATER-BASED EXTRUSION PRIMER

MICA H-788 is a water-based primer designed to promote the adhesion of extruded polyethylene to paper or film. In certain applications, this primer can be used as a component of the food-contact surface of paper and paperboard.

CHARACTERISTICS*	
Type	Water- based, modified polyethyleneimine, single-component resin dispersion
Appearance	Water clear to hazy liquid
Solids	~21%
pH at 25°C	~10-11
Viscosity at 25°C	< 100 centipoise
FDA Status	Complies with 21 CFR 175.105 and 21 CFR 176.170
Halal Certified	Yes

* These characteristics are provided for general information only. They are typical values and do not constitute product specifications.

APPLICATION EQUIPMENT AND TECHNIQUE

Equipment and Dilution: Application can be made via smooth roll or fine gravure cylinders. The dilution will depend on the delivery of the applicator. Higher dilution may be required for coarser gravure cylinders.

RECOMMENDED APPLICATION WEIGHT		
Weight	lb/3,000 ft ²	g/m ²
Dry	0.02-0.04	0.03-0.07

Solvent Addition: Quantities of ethanol or isopropanol may be used as part of the diluent system for wetting or to facilitate drying. For best solution stability, *do not exceed* 1-part alcohol: 1-part **MICA H-788** by volume. Other solvents are incompatible with this primer.

Treatment: Prior to applying **MICA H-788**, we recommend corona or flame treatment of substrates for adequate coating and adhesion to the surface.

Drying: Drying is best accomplished with a flame dryer or hot, circulating air. The primer should be dry to the touch upon exiting the oven. Insufficient drying may result in poor adhesion.

Extrusion: The adhesion will be related to the melt oxidation, extrusion temperature and coating thickness. For polyethylene, use the maximum practical melt temperature, at least 610°F (320°C).

Cure Cycle: The off-machine bonds should be close to the final bonds. The bond varies with melt temperature, weight of extrudate, and usually ages up slightly during the following 24 hours.

HANDLING

Clean Up: For best results, flush with water and/or wipe with a damp cloth before product dries. Stubborn deposits may require scrubbing with soap and water, or a caustic cleaner. For detailed clean-up instructions, please request our "Clean Up" Primer Intelligence article from your technical sales representative.

Storage: **MICA H-788** is non-hazardous in transportation and storage. Store in a cool, dry place away from direct sunlight. The shelf life is 18 months in unopened containers.

Freeze/Thaw Stability: If frozen, allow the product to thaw slowly to room temperature, mix gently and use.

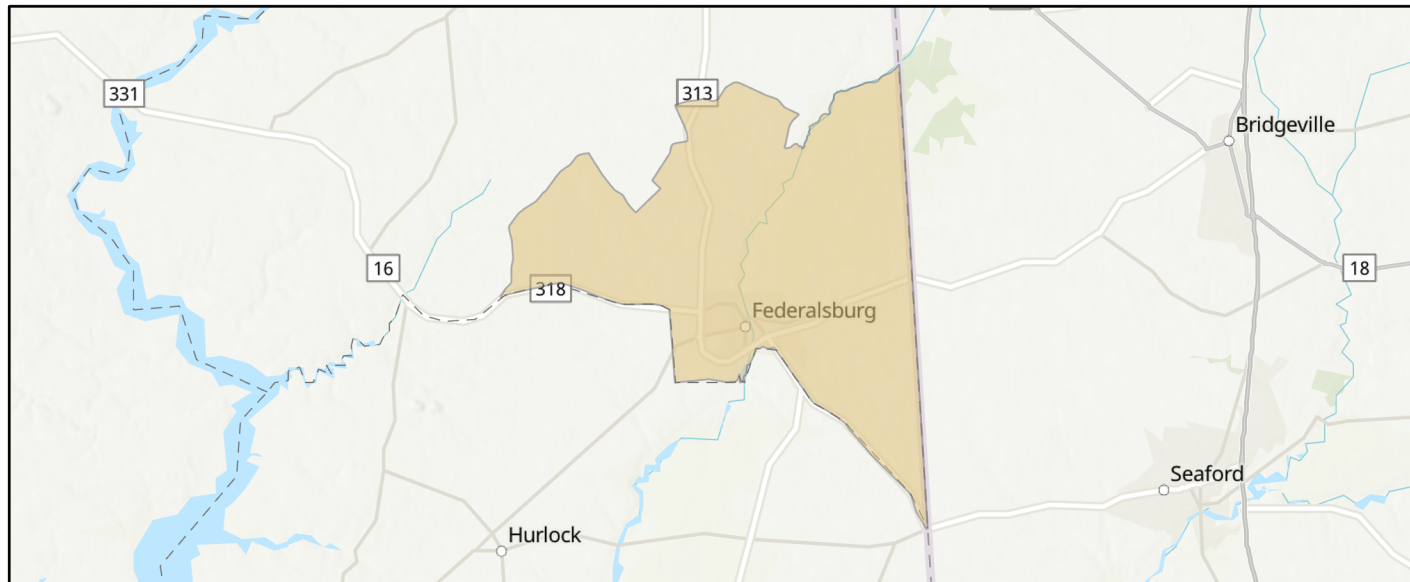
For more information, please contact your Mica technical sales representative.



MDEnviroScreen Report

Census Tract ID: 24011955600

County: Caroline



MDEnviroScreen Summary

EJ Score: 68.8

Overburdened Community: Yes

Underserved Community: Yes

MDEnviroScreen EJ Score Indicators

Pollution Burden Exposure		Pollution Environmental Effect		Sensitive Population	
<u>Indicator</u>	<u>Percentile</u>	<u>Indicator</u>	<u>Percentile</u>	<u>Indicator</u>	<u>Percentile</u>
PM 2.5	12.4	Lead Paint	69.5	Low Birth Weight	82
Ozone	17	RMP Facility	69.9	Asthma Discharge	78.6
Diesel PM	3.7	Superfund	42.5	Myocardial Infarction	64.2
Cancer Risk	0.2	Hazardous Waste	3.6	Lack of Broadband	93.8
Respiratory Hazard	2.9	Wastewater	28.1	Low Income*	94.2
Traffic	0.6	Brownfield	83.8		
Toxic Release	93.6	Power Plant	0		
Hazardous Landfill	0	CAFO	99.2		
		Mining	93.8		

*The MDEnviroScreen EJ score represents a combined measure of pollution and the potential vulnerability of a population to the effects of pollution. The EJ score in MDEnviroScreen does not include data from every available map layer. For example, it does not include race/ethnicity or age, however, MDE has made that information available for informational purposes only. Collecting and displaying this data allows users to evaluate the relationships between demographics and pollution burden, and can be used to better understand issues related to environmental justice and racial equity in Maryland. MDE cautions users against using the "Underserved" map layer, or its subcategories, in any manner that would be considered discriminatory under applicable law.



118 NORTH MAIN STREET
P. O. BOX 471
FEDERALSBURG, MARYLAND 21632

410-754-8173

October 13, 2025

Mr. Frank Cole
C/O Dart Corporation
1000 Industrial Park Drive
Federalsburg, MD 21632

Zoning Compliance - 1000 Industrial Park Drive, Federalsburg, MD. 21632

The above-referenced property is located within the ID-2 (General Industrial) zone. The proposed use of the above property for printing and machine operation is permitted as a matter of right in the ID-2 Zoning District under the Code of the Town of Federalsburg Chapter §245-81(53)

In addition, our records at this time reflect that there are no zoning violations with respect to the subject property.

Sincerely,

Kimberly Abner

Mayor, Federalsburg, Maryland

CHICAGO PRESS 16 F2 – M15001900

- **Drying system (Operating Temperature, Air Flow)**

Inter-colour drying:

- Volume of high-speed blower: 4.950 Nm³/h.
- Volume of high speed exhauster: **10.020 Nm³/h.(***)**
- Air speed in the nozzles: 50 m/s.
- Maximum temperature: 80 °C / 176 F.(**)

Drying tunnel:

- Volume of high-speed blower: 8.060 Nm³/h.
- Volume of high speed exhauster: **10.200 Nm³/h.(***)**
- Air speed in the nozzles: 45 m/s.
- Maximum temperature: 120 °C / 248 F.(**)

(**) Considering 15°C the minimum temperature of fresh air. Lower temperatures to be studied on each case.

(***) **Considering a recirculation of 0% between colours and 0% in the tunnel. Different recirculation conditions to be studied on each case.**

- **Heating system by gas**

Equipped with 2 burners including switch control and automatic valvestrain, automatic temperature adjustment, suitable for inter-colour and tunnel dryers.

- Tunnel: 1 burner of 200 kW.
- Between colors: 1 burner of 200 kW.

MODEL	200 kW
FUEL	GAS NATURAL/LPG
CONSUMP. MAX.	20/8 Nm ³ /h
CONSUMP. MIN.	1.0/0.4 Nm ³ /h
CAPACITY MAX.	200 kW
CAPACITY MIN.	10 kW
FUEL PRESSURE	25-300/15-300 mbar

New fresh air considered at 15°C. Lower temperature to be studied case by case.

- **Any equipment to monitor and record operating conditions which may affect emissions of air contaminants?** [NO]

	Drying data	
		02/09/2025

DALLAS PRESS 10 FI AND CHICAGO PRESS 15 FI – M29001300

- Drying system (Operating Temperature, Air Flow)**

Inter-colour drying:

- Volume of high-speed blower: 6.960 Nm³/h.
- Volume of high speed exhauster: 11.153 Nm³/h.(***)
- Maximum temperature: 80 °C / 176 F.(**)
- Without recirculation, with heat exchanger.

Drying tunnel:

- Volume of high-speed blower: 9.030 Nm³/h.
- Volume of high speed exhauster: 11.453 Nm³/h.(***)
- Maximum temperature: 120 °C / 248 F.(**)
- Without recirculation, with heat exchanger.

(**) Considering 15°C the minimum temperature of fresh air. Lower temperatures to be studied on each case.

(***) Considering a recirculation of 0% between colours and 0% in the tunnel.

- Heating system by gas**

Equipped with 2 burners including switch control and automatic valvestrain, automatic temperature adjustment, suitable for inter-colour and tunnel dryers.

- Any equipment to monitor and record operating conditions which may affect emissions of air contaminants?** [NO]