

SAFETY DATA SHEET

LUBRICUT 5458

Section 1. Identification

GHS product identifier : LUBRICUT 5458
Other means of identification : Not available.
Product type : Liquid
Product code : 2314000000
SDS # : 3414

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

Product use: For professional use only. : Industrial applications: Metal working fluids

Supplier's details : Lozier Oil Company
1 Sunny St.
Farmington, IL 61531
Tel: 309-245-4846
Fax: 309-245-4888

Emergency phone number : Chemtrec: 1-800-424-9300 (US & Canada)
+1 703-527-3887 (International)

Section 2. Hazard identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : EYE IRRITATION – Category 2A
SKIN SENSITIZATION – Category 1

Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 12.1%
Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 12.4%
Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 12.1%

GHS Hazard Symbols :



Signal Word :

Warning

Hazard Statements :

Causes serious eye irritation.
May cause an allergic skin reaction

Precautionary Statements

Prevention

: Wear protective gloves. Wear eye or face protection. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response

: IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If irritation or rash occurs: get medical attention. 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 attention.

Storage

: Not applicable.

Disposal

: Dispose of content and container in accordance with local, regional, national and international regulations.

Hazards not otherwise classified

: None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: Not available

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated heavy naphthenic	≥10 - ≤25	64742-52-5
Undecan-1-ol, ethoxylated	≤3	34398-01-1
N,N'-methylenebis(morpholine)	<3	5625-90-1
2-iodo-2-propynyl butylcarbamate	<1	55406-53-6
1,2-benzisothiazol-3(2H)-one	≤0.1	2634-33-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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 and hence require reporting in this section.

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

Section 4. Fire-aid measures

Description of necessary 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

: 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. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
 - Pair or irritation
 - Watering
 - redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
 - Irritation
 - Redness
- Ingestion** : No specific data

Indication of immediate medical attention and special treatment needed, if necessary

- 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
- 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.

See toxicological information (Section11)

Section 5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

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

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
 - Carbon dioxide
 - Carbon monoxide
 - Nitrogen oxides
 - Phosphorous oxides

- 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 protect 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.

Section 6. Accidental release measures

Personal cautions, 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 breath vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on 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 for “non-emergency personnel”.

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).

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 (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 or emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

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 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 occupations 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.

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, way 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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient Name	Exposure limits
Distillates (petroleum), hydrotreated heavy naphthenic	ACGIH TLV (United States, 3/2017). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction OSHA PEL (United States, 6/2016) TWA: 5 mg/m ³ 8 hours. NIOSH REL (United States, 10/2016) TWA: 5 mg/m ³ 10 hours. Form: Mist STEL: 10 mg/m ³ 15 minutes. Form: Mist
Undecan-1-ol, ethoxylated	None.
N,N'-methylenebismorpholine	None.
3-iodo-2-propynyl butylcarbamate	None.
1,2-benzisothiazol-3(2H)-one	None.

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- 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.

Individual protection measure, such as personal protective equipment:

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking or 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: 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 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.

Section 9. Physical and chemical properties

Appearance

Physical state	: Liquid [Clear to slightly hazy liquid.]
Color	: Amber.
Odor	: Mild.
pH	: 9.5 to 10
Melting point	: Not available.
Boiling point	: Not available.
Flash point	: Closed cup: Not applicable. [Product does not sustain combustion.]
Evaporation Rate	: Not available.
Flammability (solid, gas)	: Flammable in the present of the following materials or conditions: open flames, sparks, discharge and heat.
Upper flammability or explosive limits	: Not available
Lower flammability or explosive limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Density	: 0.9603 to 1.01 g/cm ³
Solubility	: Forms an emulsion
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available
Viscosity	: Not available.

Section 10. Stability and reactivity

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Distillates (petroleum), hydrotreated heavy naphthenic	LD50 Oral	Rat	>5000 mg/kg	-
N,N'-methylenebismorpholine	LC50 Inhalation Dusts and Mists	Rat Rabbit	2.6 to 10.4 mg/l	4 hours
	LD50 Dermal		1674 mg/kg	-
	LD50 Oral	Rat	500 to 2000 mg/kg	-
3-iodo-2-propynyl butylcarbamate	LD50 Oral	Rat	1470 mg/kg	-
1,2-benzisothiazol-3(2H)-one	LD50 Oral	Rat	1020 mg/kg	-

Conclusion/summary : No known significant effects or critical hazards

Irritation/Corrosion

Chemical Name	Result	Species	Score	Exposure	Observation
Distillates (petroleum), hydrotreated heavy naphthenic	Skin – Severe irritant	Rabbit	-	500 milligrams	-
1,2-benzisothiazol-3(2H)-one	Skin – Mild irritant	Human	-	48 hours 5 percent	-
	Skin – Irritant	Rabbit	-	-	-

Conclusion/summary

- Skin** : No known significant effects or critical hazards.
Eyes : Causes eye irritation.
Respiratory : Repeated or prolonged exposure to spray or mist may product respiratory tract irritation.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
1,2-benzisothiazol-3(2H)-one	Skin	Guinea pig	Sensitizing

Conclusion/summary

- Skin** : May cause an allergic skin reaction
Respiratory : Sensitization not suspected for humans.

Mutagenicity

Conclusion/Summary

There are no data available on the mixture itself. Mutagenicity not suspected for humans.

Carcinogenicity

Conclusion/Summary

There are no data available on the mixture itself. Carcinogenicity not suspected for humans.

Reproductive Toxicity

Conclusion/Summary

There are no data available on the mixture itself. Not considered to be dangerous to humans.

Teratogenicity

Conclusion/Summary

There are no data available on the mixture itself. Teratogenicity not suspected for humans.

Specific target organ toxicity (single exposure)

Name	Category	Route of Exposure	Target Organs
3-iodo-2-propynyl butylcarbamate	Category 3	Not applicable	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Name	Result
Distillates (petroleum), hydrotreated heavy naphthenic	ASPIRATION HAZARDS – Category 1

- Information on the likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation

Potential acute health effects

- Eye contact** : Causes serious irritation.
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	: 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	: No known significant effects or critical hazards.
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.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE Value
Oral	11836.9 mg/kg
Inhalation (dusts and mists)	88.51 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Undecan-1-ol, ethoxylated	Acute EC50 2100 ug/l Fresh water	Daphnia – Daphnia magna	48 hours
	Acute LC50 3900 ug/l Fresh water	Fish – Pimephales promelas	96 hours
N,N'-methylenebismorpholine	EC50 4.4 mg/l	Algae	72 hours
	EC50 24 mg/l	Daphnia	48 hours
	LC50 >100 mg/l	Fish – Rainbow Trout	4 days
	Chronic NOEC 5 mg/l	Daphnia	21 days
3-iodo-2-propynyl butylcarbamate	Acute LC50 500 ppb Fresh water	Crustaceans – Hyatella	48 hours
	Acute LC50 40 ppb Fresh water Acute LC50 67 ug/l Fresh water	Azteca	48 hours
		Daphnia – Daphnia magna	96 hours
	Chronic NOEC 8.4 ppb	Fish – Oncorhynchus mykiss-Juvenile (Fledgling, Hatchling, Weanling) Fish – Pimephales promelas	35 days
1,2-benzisothiazol-3(2H)-one	EC50 0.11 mg/l	Algae	3 days
	EC50 2.94 mg/l	Daphnia	2 days
	LC50 2.18 mg/l	Fish	4 days

Conclusion/Summary	: Harmful to aquatic life with long lasting effects
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Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
N,N'-methylenebismorpholine	-	93% - Readily – 28 days	-	-

Conclusion/Summary : This product has not been tested for biodegradation. Expected to be biodegradable.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
N,N'-methylenebismorpholine	-	-	Readily
1,2-benzisothiazol-3(2H)-one	-	-	Readily

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (Koc) : Not available

Other adverse effects : No known significant effects or critical hazards

Section 13. Disposal considerations

Disposal methods : 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
Un proper shipping name	-	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-	-
Packing group	-	-	-	-	-	-
Environmental hazard	No.	No.	No.	No.	No.	No.

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

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

- U.S Federal regulations** : TSCA 4(a) proposed test rules: sodium 4(or 5)-methyl-1H-benzotriazolide
TSCA 8(a) PAIR: naphthalene
TSCA 8(a) CDR Exempt/Partial exemption: Not determined.
Clean Water Act (CWA) 307: naphthalene; benzo[a]pyrene
Clean Water Act (CWA) 311: naphthalene, xylene; propylene oxide; Formaldehyde, solution; Sodium hydroxide
- Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Listed
- Clean Air Act Section 602 Class I Substances** : Not listed
- Clean Air Act Section 602 Class II Substances** : Not listed
- DEA List 1 (Precursor Chemicals)** : Not listed
- DEA List II Chemicals (Essential Chemicals)** : Not listed
- SARA 302/304**

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Propylene oxide	≤0.1	Yes.	10000	1444.3	100	14.4
Ethylene oxide; oxirane	≤0.1	Yes.	-	-	-	-
Formaldehyde	<0.1	Yes.	500	73.9	100	14.8

SARA 304 RQ : 1980590.2 lbs / 899188 kg [238698 gal / 903570.3 L]

SARA 311/312

- Classification** : EYE IRRITATION – Category 2A
SKIN SENZITIZATION – Category 1

Composition/information on ingredients

Name	%	Classification
Distillates (petroleum), hydrotreated heavy naphthenic	≥10 - ≤25	ASPIRATION HAZARD – Category 1
Undecan-1-ol, ethoxylated	≤3	ACUTE TOXICITY (oral) – Category 4 EYE IRRITATION – Category 2A
N,N'-methylenebismorpholine	<3	ACUTE TOXICITY (oral) – Category 4 ACUTE TOXICITY (inhalation) – Category 4 SKIN CORROSION – Category 1B SERIOUS EYE DAMAGE – Category 1
3-iodo-2-propynyl butylcarbamate	<1	ACUTE TOXICITY (oral) – Category 4 ACUTE TOXICITY (dermal) – Category 4 SERIOUS EYE DAMAGE – Category 1 SKIN SENSITIZATION – Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) – Category 3
1,2-benzisothiazol-3(2H)-one	≤0.1	ACUTE TOXICITY (oral) – Category 4 SKIN IRRITAITON – Category 2 SERIOUS EYE DAMAGE – Category 1 SKIN SENSITIZATION – Category 1


SARA313

Component	Product name	CAS number	%
Form R – Reporting Requirements	Benzo[a]pyrene	50-32-8	<0.2
Supplier notification	No listed substance		

State regulations

Massachusetts	:	The following components are listed: OIL MIST, MINERAL; OIL MIST, MINERAL
New York	:	None of the components are listed
New Jersey	:	None of the components are listed
Pennsylvania	:	None of the components are listed.

California Prop. 65

 **WARNING:** This product can expose you to chemicals including ethylene oxide; oxirane, which is known to the State of California to cause cancer and birth defects or other reproductive harm. This product can expose you to chemicals including Propylene oxide, Formaldehyde, 1,4-Dioxane, Naphthalene, Benzo[a]pyrene, which are known to the State of California to cause cancer, and Ethylene Glycol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P5Warnings.ca.gov.

Ingredient name	Concentration (%)	No significant risk level [‘-‘ (Dash Symbol) means no Safe Harbor level established]	Maximum acceptable dosage level [‘-‘ (Dash Symbol) means no Safe Harbor level established]
Propylene oxide	0 – 0.010098	-	-
Ethylene oxide	0 – 0.010098	-	-
Ethylene Glycol	0.00198	-	8700 ug/day (Ingestion) [Maximum Allowable Dose Levels (MADLs) for reproductive toxicity, California P65 Safe Harbor Levels – Oral]
Formaldehyde	0.000135	40 ug/day [No significant risk level]	-
1,4-Dioxane	0 – 0.000198	30 ug/day [No significant risk level]	-
Naphthalene	<0.0003114	5.8 ug/day [No significant risk level]	-
Benzo[a]pyrene	<0.00000054	0.06 ug/day [No significant risk level]	

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A,B,C,E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory List

Australia	:	At least one component is not listed.
Canada	:	At least one component is not listed.
China	:	At least one component is not listed.
Europe	:	All components are listed or exempted.
Japan	:	At least one component is not listed.
New Zealand	:	At least one component is not listed.
Philippines	:	At least one component is not listed.
Republic of Korea	:	At least one component is not listed.
Taiwan	:	At least one component is not listed.
United States	:	All components are listed or exempted.

Section 16. Other information

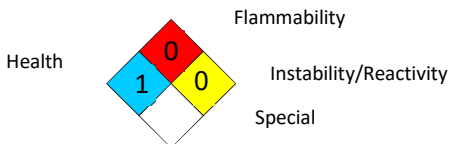
Hazardous Material Information System (U.S.A.)

Health	/	1
Flammability		0
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

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National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
EYE IRRITATION – Category 2A	Calculation Method
SKIN SENSITIZATION – Category 1	Calculation Method

History

Date of issue/Date of revision : 8/9/2019

Date of previous issue : 2/15/2019

Version : 1.0

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations Not available.

References

: Not available.

Indicates information that has changed from previously issued version.

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.