

**Stage 2**

Date of compilation: 1/9/2023      Revised: 12/8/2023      Version: 3 (Replaced 2)

**SECTION 1: IDENTIFICATION**

- 1.1 GHS Product identifier:** Stage 2
- Other means of identification:**  
Not applicable (N/A)
- 1.2 Recommended use of the chemical and restrictions on use:**  
Relevant uses: Auxiliary product for the automotive; water repeller; automotive applications. For professional users/industrial user only.  
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**  
GARDX INTERNATIONAL LTD  
LAKE HOUSE, 2 PORT WAY, PORT SOLENT,  
PO6 4TY PORTSMOUTH - UNITED KINGDOM  
Phone: +44 (0)1243 376426  
product@gardx.co.uk  
www.gardx.co.uk  
Importer:  
Atkins Kroll Guam,  
443 S Marine Corps Dr.,  
Tamuning,  
GU 96913.  
  
Tel: 1-671-646-1886.
- 1.4 Emergency phone number:** CNN: 1012486. For 24/7 multilingual advice for spill, leak, fire, exposure, or accident call Chemtrec Toll-Free number 1-800-424-9300. Oregon Poison Centre: 1-800-222-1222.

**SECTION 2: HAZARD(S) IDENTIFICATION**

- 2.1 Classification of the substance or mixture:**
- NFPA:**  
Health Hazards: 0  
Flammability Hazards: 2  
Instability Hazards: 0  
Special Hazards: Not applicable (N/A)
- HMIS®:**  
Health: 1  
Flammability: 2  
Physical Hazard: 0  
Personal Protection: B
- 29 CFR 1910.1200:**  
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.  
Flam. Liq. 3: Flammable liquids, Category 3, H226  
STOT RE 1: Specific target organ toxicity — Repeated exposure, Hazard Category 1 (Inhalation), H372  
STOT SE 3: Specific toxicity causing drowsiness and dizziness, single exposure, Category 3, H336

**2.2 Label elements:**

**NFPA:**



**HMIS®:**

HEALTH	1
FLAMMABILITY	2
PHYSICAL HAZARD	0
PERSONAL PROTECTION	B

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**SECTION 2: HAZARD(S) IDENTIFICATION (continued)**

**29 CFR 1910.1200:**

Danger



**Hazard statements:**

Flam. Liq. 3: H226 - Flammable liquid and vapour.  
STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure (Inhalation).  
STOT SE 3: H336 - May cause drowsiness or dizziness.

**Precautionary statements:**

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P260: Do not breathe vapours  
P271: Use only outdoors or in a well-ventilated area.  
P273: Avoid release to the environment.  
P280: Wear protective gloves.  
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P312: Call a POISON CENTER or doctor/physician if you feel unwell.  
P501: Dispose of the contents/containers in accordance with the current legislation on waste treatment

**Substances that contribute to the classification**

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) (CAS: 64742-82-1)

**2.3 Hazards not otherwise classified (HNOC):**

Not applicable (N/A)

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substances:**

Non-applicable

**3.2 Mixtures:**

**Chemical description:** Wax/es

**Components:**

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 64742-82-1	<b>Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)</b> Asp. Tox. 1: H304; Flam. Liq. 3: H226; STOT RE 1: H372; STOT SE 3: H336 - Danger	25 - <50 %
CAS: 61789-77-3	<b>Quaternary ammonium compounds, dicoco alkyl dimethyl, chlorides</b> Acute Tox. 4: H302; Skin Corr. 1B: H314 - Danger	<1 %
CAS: 25307-17-9	<b>2,2'-(octadec-9-enylimino)bisethanol (2 EO)</b> Acute Tox. 4: H302; Eye Dam. 1: H318; Skin Corr. 1B: H314 - Danger	<1 %
CAS: 67-63-0	<b>propan-2-ol</b> Eye Irrit. 2A: H319; Flam. Liq. 2: H225; STOT SE 3: H336 - Danger	<1 %
CAS: 55406-53-6	<b>3-iodo-2-propynyl Butylcarbamate</b> Acute Tox. 4: H302+H332; Eye Dam. 1: H318; Skin Sens. 1: H317; STOT SE 3: H335 - Danger	<1 %
CAS: 140-11-4	<b>Benzyl acetate</b> Flam. Liq. 4: H227	<1 %
CAS: 101-84-8	<b>Diphenyl ether</b> Eye Irrit. 2A: H319 - Warning	<1 %
CAS: 84-66-2	<b>Diethyl phthalate</b>	<1 %
CAS: 55965-84-9	<b>Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)</b> Acute Tox. 2: H310+H330; Acute Tox. 3: H301; Eye Dam. 1: H318; Skin Corr. 1C: H314; Skin Sens. 1A: H317 - Danger	<1 %

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**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)**

Identification	Chemical name/Classification	Concentration
CAS: 76-22-2	<b>Bornan-2-one</b> Acute Tox. 4: H332; Eye Dam. 1: H318; Flam. Sol. 2: H228; Skin Irrit. 2: H315; STOT SE 2: H371 - Danger	<1 %

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

**SECTION 4: FIRST-AID MEASURES**

**4.1 Description of necessary measures:**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By inhalation:**

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

**4.2 Most important symptoms/effects, acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

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

Not applicable (N/A)

**SECTION 5: FIRE-FIGHTING MEASURES**

**5.1 Suitable (and unsuitable) extinguishing media:**

**Suitable extinguishing media:**

Foam extinguisher (AB), Dry Chemical Powder (ABC) Fire Extinguisher, Carbon dioxide extinguisher (BC)

**Unsuitable extinguishing media:**

Water jet

**5.2 Specific hazards arising from the chemical:**

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

**5.3 Special protective equipment and precautions for fire-fighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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**SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)****6.1 Personal precautions, protective equipment and emergency procedures:****For non-emergency personnel:**

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilled product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Remove any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

**For emergency responders:**

Wear protective equipment. Keep unprotected persons away. See section 8.

**6.2 Environmental precautions:**

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

**6.3 Methods and materials for containment and cleaning up:**

For accidental releases in excess of reportable quantities (RQ) (Table 302.4), refer to 40 CFR 302 for detailed instructions concerning reporting requirements and notify the National Response Center (800) 424-8802.

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

**6.4 Reference to other sections:**

See sections 8 and 13.

**SECTION 7: HANDLING AND STORAGE****7.1 Precautions for safe handling:****A.- General precautions for safe use**

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

**B.- Technical recommendations for the prevention of fires and explosions**

Because the product is a flammable liquid, storage should meet the requirement of 29 CFR 1910.106, Flammable and Combustible Liquids Code. Transfer in well ventilated areas, preferably through localized extraction. Fully control sources of ignition (mobile phones, sparks,...) and ventilate during cleaning operations. Avoid the existence of dangerous atmospheres inside containers, applying inertization systems where possible. Transfer at a slow speed to avoid the creation of electrostatic charges. Against the possibility of electrostatic charges: ensure a perfect equipotential connection, always use groundings, do not wear work clothes made of acrylic fibres, preferably wearing cotton clothing and conductive footwear. Comply with the essential security requirements for equipment and systems and with the minimum requirements for protecting the security and health of workers. Consult section 10 for conditions and materials that should be avoided.

**C.- Technical recommendations on general occupational hygiene**

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

**D.- Technical recommendations to prevent environmental risks**

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

**7.2 Conditions for safe storage, including any incompatibilities:****A.- Technical measures for storage**

Minimum Temp.: 39.2 °F

Maximum Temp.: 104 °F

NFPA 30: II

**B.- General conditions for storage**

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

**7.3 Specific end use(s):**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)**

**8.1 Control parameters:**

Substances whose occupational exposure limits have to be monitored in the workplace:

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000):

Identification	Occupational exposure limits		
	propan-2-ol CAS: 67-63-0	8-hour TWA PEL	400 ppm
	Ceiling Values - TWA PEL		
Bornan-2-one CAS: 76-22-2	8-hour TWA PEL		2 mg/m <sup>3</sup>
	Ceiling Values - TWA PEL		
Diphenyl ether CAS: 101-84-8	8-hour TWA PEL	1 ppm	7 mg/m <sup>3</sup>
	Ceiling Values - TWA PEL		

US. ACGIH Threshold Limit Values (2022):

Identification	Occupational exposure limits		
	propan-2-ol CAS: 67-63-0	TLV-TWA	200 ppm
	TLV-STEL	400 ppm	
Aluminium hydroxide CAS: 21645-51-2	TLV-TWA		1 mg/m <sup>3</sup>
	TLV-STEL		
Bornan-2-one CAS: 76-22-2	TLV-TWA	2 ppm	
	TLV-STEL	3 ppm	
Benzyl acetate CAS: 140-11-4	TLV-TWA	10 ppm	
	TLV-STEL		
Diphenyl ether CAS: 101-84-8	TLV-TWA	1 ppm	
	TLV-STEL	2 ppm	
Diethyl phthalate CAS: 84-66-2	TLV-TWA		5 mg/m <sup>3</sup>
	TLV-STEL		

CALIFORNIA- TABLE AC-1 PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS:

Identification	Occupational exposure limits		
	propan-2-ol CAS: 67-63-0	PEL	400 ppm
	STEL	500 ppm	1225 mg/m <sup>3</sup>
Copper dinitrate CAS: 3251-23-8	PEL		1 mg/m <sup>3</sup>
	STEL		
Bornan-2-one CAS: 76-22-2	PEL		2 mg/m <sup>3</sup>
	STEL		
Benzyl acetate CAS: 140-11-4	PEL	10 ppm	61 mg/m <sup>3</sup>
	STEL		
Diphenyl ether CAS: 101-84-8	PEL	1 ppm	7 mg/m <sup>3</sup>
	STEL		
Diethyl phthalate CAS: 84-66-2	PEL		5 mg/m <sup>3</sup>
	STEL		

**Biological limit values:**

Biological Exposure Indices (BEIs®) - ACGIH

Identification	BEIs®	Determinant	Sampling Time
propan-2-ol CAS: 67-63-0	40 mg/L	Acetone in urine	End of shift at end of workweek

**8.2 Appropriate engineering controls:**

A.- Individual protection measures, such as personal protective equipment

Always provide effective general and, when necessary, local exhaust ventilation to maintain the ambient workplace atmosphere below the exposure limits.. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection



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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)**

**Volatility:**

Boiling point at atmospheric pressure:	232 °F
Vapour pressure at 68 °F:	2220 Pa
Vapour pressure at 122 °F:	11728.48 Pa (11.73 kPa)
Evaporation rate at 68 °F:	Not applicable (N/A) *

**Product description:**

Density at 68 °F:	Not applicable (N/A) *
Relative density at 68 °F:	0.943 - 0.963
Dynamic viscosity at 68 °F:	20000 - 30000 cP
Kinematic viscosity at 68 °F:	Not applicable (N/A) *
Kinematic viscosity at 104 °F:	>20.5 mm <sup>2</sup> /s
Concentration:	Not applicable (N/A) *
pH:	Not applicable (N/A) *
Vapour density at 68 °F:	Not applicable (N/A) *
Partition coefficient n-octanol/water 68 °F:	Not applicable (N/A) *
Solubility in water at 68 °F:	Not applicable (N/A) *
Solubility properties:	Insoluble in water
Decomposition temperature:	Not applicable (N/A) *
Melting point/freezing point:	Not applicable (N/A) *

**Flammability:**

Flash Point:	110 °F
Flammability (solid, gas):	Not applicable (N/A) *
Autoignition temperature:	396 °F
Lower flammability limit:	Not available
Upper flammability limit:	Not available

**Particle characteristics:**

Median equivalent diameter:	Non-applicable
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**9.2 Other information:**

**Information with regard to physical hazard classes:**

Explosive properties:	Not applicable (N/A) *
Oxidising properties:	Not applicable (N/A) *
Corrosive to metals:	Not applicable (N/A) *
Heat of combustion:	Not applicable (N/A) *
Aerosols-total percentage (by mass) of flammable components:	Not applicable (N/A) *

**Other safety characteristics:**

Surface tension at 68 °F:	Not applicable (N/A) *
Refraction index:	Not applicable (N/A) *

\*Not applicable (N/A) due to the nature of the product, not providing information property of its hazards.

**SECTION 10: STABILITY AND REACTIVITY**

**10.1 Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

**10.2 Chemical stability:**

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### SECTION 10: STABILITY AND REACTIVITY (continued)

Chemically stable under the indicated conditions of storage, handling and use.

#### 10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

#### 10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Precaution	Not applicable	Risk of combustion	Avoid direct impact	Not applicable

#### 10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Not applicable	Avoid alkalis or strong bases

#### 10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

##### Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

##### A- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

##### B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

##### C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for skin contact. For more information see section 3.
- Contact with the eyes: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

##### D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

##### E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous with sensitising effects. For more information see section 3.

##### F- Specific target organ toxicity (STOT) - single exposure:

Exposure in high concentration can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.

##### G- Specific target organ toxicity (STOT)-repeated exposure:

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**SECTION 11: TOXICOLOGICAL INFORMATION (continued)**

- Specific target organ toxicity (STOT)-repeated exposure: Serious health effects in the case of prolonged inhalation, including death, serious functional disorders or morphological changes of toxicological importance.
- Skin: Repeated exposure may cause skin dryness or cracking

H- Aspiration hazard:

Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

**Other information:**

Not applicable (N/A)

**Specific toxicology information on the substances:**

Identification	Acute toxicity		Genus
	Route	Dose	
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) CAS: 64742-82-1	LD50 oral	>5100 mg/kg	Rat
	LD50 dermal	>3160 mg/kg	Rabbit
	LC50 inhalation	>20 mg/L (4 h)	Rat
Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides CAS: 61789-77-3	LD50 oral	960 mg/kg	Rat
	LD50 dermal		
	LC50 inhalation		
2,2'-(octadec-9-enylimino)bisethanol (2 EO) CAS: 25307-17-9	LD50 oral	1260 mg/kg	Rat
	LD50 dermal		
	LC50 inhalation		
propan-2-ol CAS: 67-63-0	LD50 oral	5280 mg/kg	Rat
	LD50 dermal	12800 mg/kg	Rat
	LC50 inhalation	72.6 mg/L (4 h)	Rat
3-iodo-2-propynyl Butylcarbamate CAS: 55406-53-6	LD50 oral	1100 mg/kg	Rat
	LD50 dermal	2100 mg/kg	Rabbit
	LC50 inhalation		
Benzyl acetate CAS: 140-11-4	LD50 oral	2490 mg/kg	Rat
	LD50 dermal		
	LC50 inhalation		
Diphenyl ether CAS: 101-84-8	LD50 oral	>5000 mg/kg	Rat
	LD50 dermal	7940 mg/kg	Rabbit
	LC50 inhalation		
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS: 55965-84-9	LD50 oral	64 mg/kg	Rat
	LD50 dermal	87.12 mg/kg	Rabbit
	LC50 inhalation	0.33 mg/L (4 h)	Rat
Bornan-2-one CAS: 76-22-2	LD50 oral		
	LD50 dermal		
	LC50 inhalation	1.5 mg/L (4 h)	Rat

**SECTION 12: ECOLOGICAL INFORMATION**

The experimental information related to the eco-toxicological properties of the product itself is not available

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

**12.1 Ecotoxicity (aquatic and terrestrial, where available):**

**Acute toxicity:**

Identification	Concentration		Species	Genus
	Route	Dose		
2,2'-(octadec-9-enylimino)bisethanol (2 EO) CAS: 25307-17-9	LC50	0.1 mg/L (96 h)	Danio rerio	Fish
	EC50	0.043 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	0.0867 mg/L (72 h)	Pseudokirchneriella subcapitata	Algae

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Concentration		Species	Genus
propan-2-ol CAS: 67-63-0	LC50	9640 mg/L (96 h)	Pimephales promelas	Fish
	EC50	13299 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	1000 mg/L (72 h)	Scenedesmus subspicatus	Algae
3-iodo-2-propynyl Butylcarbamate CAS: 55406-53-6	LC50	0.07 mg/L (96 h)	Oncorhynchus mykiss	Fish
	EC50	0.09 mg/L (96 h)	Mysidopsis bahia	Crustacean
	EC50	0.05 mg/L (72 h)	Scenedesmus subspicatus	Algae
Benzyl acetate CAS: 140-11-4	LC50	Not applicable (N/A)		
	EC50	17 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	110 mg/L (72 h)	Desmodesmus subspicatus	Algae
Diethyl phthalate CAS: 84-66-2	LC50	61 mg/L (48 h)	Leuciscus idus	Fish
	EC50	52 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Not applicable (N/A)		
Bornan-2-one CAS: 76-22-2	LC50	110 mg/L (96 h)	Pimephales promelas	Fish
	EC50	4.2 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	1.71 mg/L (72 h)	N/A	Algae

Chronic toxicity:

Identification	Concentration		Species	Genus
Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides CAS: 61789-77-3	NOEC	Not applicable (N/A)		
	NOEC	0.15 mg/L	Daphnia magna	Crustacean
2,2'-(octadec-9-enylimino)bisethanol (2 EO) CAS: 25307-17-9	NOEC	Not applicable (N/A)		
	NOEC	0.0099 mg/L	Daphnia magna	Crustacean
3-iodo-2-propynyl Butylcarbamate CAS: 55406-53-6	NOEC	0.0084 mg/L	Pimephales promelas	Fish
	NOEC	0.0499 mg/L	Daphnia magna	Crustacean
Benzyl acetate CAS: 140-11-4	NOEC	0.92 mg/L	Oryzias latipes	Fish
	NOEC	Not applicable (N/A)		
Diethyl phthalate CAS: 84-66-2	NOEC	5 mg/L	Cyprinus carpio	Fish
	NOEC	25 mg/L	Daphnia magna	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides CAS: 61789-77-3	BOD5	Not applicable (N/A)	Concentration	Not applicable (N/A)
	COD	Not applicable (N/A)	Period	28 days
	BOD5/COD	Not applicable (N/A)	% Biodegradable	82 %
2,2'-(octadec-9-enylimino)bisethanol (2 EO) CAS: 25307-17-9	BOD5	Not applicable (N/A)	Concentration	10 mg/L
	COD	Not applicable (N/A)	Period	28 days
	BOD5/COD	Not applicable (N/A)	% Biodegradable	88 %
propan-2-ol CAS: 67-63-0	BOD5	1.19 g O2/g	Concentration	100 mg/L
	COD	2.23 g O2/g	Period	14 days
	BOD5/COD	0.53	% Biodegradable	86 %
Benzyl acetate CAS: 140-11-4	BOD5	Not applicable (N/A)	Concentration	10 mg/L
	COD	Not applicable (N/A)	Period	28 days
	BOD5/COD	Not applicable (N/A)	% Biodegradable	100 %
Diphenyl ether CAS: 101-84-8	BOD5	Not applicable (N/A)	Concentration	5.6 mg/L
	COD	Not applicable (N/A)	Period	20 days
	BOD5/COD	Not applicable (N/A)	% Biodegradable	76 %
Diethyl phthalate CAS: 84-66-2	BOD5	Not applicable (N/A)	Concentration	100 mg/L
	COD	Not applicable (N/A)	Period	28 days
	BOD5/COD	Not applicable (N/A)	% Biodegradable	88 %
Bornan-2-one CAS: 76-22-2	BOD5	Not applicable (N/A)	Concentration	100 mg/L
	COD	Not applicable (N/A)	Period	28 days
	BOD5/COD	Not applicable (N/A)	% Biodegradable	94 %

- CONTINUED ON NEXT PAGE -

**SECTION 12: ECOLOGICAL INFORMATION (continued)**

**12.3 Bioaccumulative potential:**

**Substance-specific information:**

Identification	Bioaccumulation potential	
propan-2-ol CAS: 67-63-0	BCF	3
	Pow Log	0.05
	Potential	Low
3-iodo-2-propynyl Butylcarbamate CAS: 55406-53-6	BCF	36
	Pow Log	2.4
	Potential	Moderate
Benzyl acetate CAS: 140-11-4	BCF	8
	Pow Log	1.96
	Potential	Low
Diphenyl ether CAS: 101-84-8	BCF	196
	Pow Log	4.21
	Potential	High
Diethyl phthalate CAS: 84-66-2	BCF	117
	Pow Log	2.07
	Potential	High
Bornan-2-one CAS: 76-22-2	BCF	38
	Pow Log	2.38
	Potential	Moderate

**12.4 Mobility in soil:**

Identification	Absorption/desorption		Volatility	
2,2'-(octadec-9-enylimino)bisethanol (2 EO) CAS: 25307-17-9	Koc	Not applicable (N/A)	Henry	Not applicable (N/A)
	Conclusion	Not applicable (N/A)	Dry soil	Not applicable (N/A)
	Surface tension	2.8E-2 N/m (77 °F)	Moist soil	Not applicable (N/A)
propan-2-ol CAS: 67-63-0	Koc	1.5	Henry	8.207E-1 Pa·m <sup>3</sup> /mol
	Conclusion	Very High	Dry soil	Yes
	Surface tension	2.24E-2 N/m (77 °F)	Moist soil	Yes
Benzyl acetate CAS: 140-11-4	Koc	Not applicable (N/A)	Henry	Not applicable (N/A)
	Conclusion	Not applicable (N/A)	Dry soil	Not applicable (N/A)
	Surface tension	3.558E-2 N/m (77 °F)	Moist soil	Not applicable (N/A)
Diphenyl ether CAS: 101-84-8	Koc	1960	Henry	Not applicable (N/A)
	Conclusion	Low	Dry soil	Not applicable (N/A)
	Surface tension	1.753E-2 N/m (497.12 °F)	Moist soil	Not applicable (N/A)
Diethyl phthalate CAS: 84-66-2	Koc	Not applicable (N/A)	Henry	6.181E-2 Pa·m <sup>3</sup> /mol
	Conclusion	Not applicable (N/A)	Dry soil	No
	Surface tension	3.699E-2 N/m (77 °F)	Moist soil	No
Bornan-2-one CAS: 76-22-2	Koc	470	Henry	8.21 Pa·m <sup>3</sup> /mol
	Conclusion	Moderate	Dry soil	Not applicable (N/A)
	Surface tension	1.53E-3 N/m (586.36 °F)	Moist soil	Yes

Insoluble in water

**12.5 Results of PBT and vPvB assessment:**

Non-applicable

**12.6 Other adverse effects:**

Not described

**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1 Disposal methods:**

- CONTINUED ON NEXT PAGE -

**SECTION 13: DISPOSAL CONSIDERATIONS (continued)**

The next characteristic per RCRA could apply to the unused product if it becomes a waste material: Ignitability. The next EPA hazardous waste number could apply: D001.

IT IS THE RESPONSIBILITY OF THE WASTE GENERATOR TO EVALUATE WHETHER HIS WASTES ARE HAZARDOUS BY CHARACTERISTICS OR LISTING.

**Waste management (disposal and evaluation):**

Follow RCRA framework and EPA regulation for to ensure that hazardous waste is managed safely and properly. Waste should not be disposed of to drains. Remind, It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing. See section 6 for further information about Accidental release measures.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Solid Wastes - Part 239 through 282.

State regulatory requirements for generators may be more stringent than those in the federal program. Be sure to check the state's policies.

**SECTION 14: TRANSPORT INFORMATION**

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:



- 14.1 UN number:** UN1993
- 14.2 UN proper shipping name:** FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%))
- 14.3 Transport hazard class(es):** 3  
**Labels:** 3
- 14.4 Packing group, if applicable:** III
- 14.5 Marine pollutant:** Yes
- 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**  
 Physico-Chemical properties: see section 9  
 Limited quantities: 5 L  
 49 CFR 173.150: A flammable liquid with a flash point at or above 38 °C (100 °F) that does not meet the definition of any other hazard class may be reclassified as a combustible liquid. This provision does not apply to transportation by vessel or aircraft, except where other means of transportation is impracticable. It can be shipped as a non-hazardous material if the container is under 120 gallons.  
 Under 49 CFR 171.4, Except when transporting aboard a vessel, the requirements of this subchapter specific to marine pollutants do not apply to non-bulk packagings transported by motor vehicles, rail cars, and aircraft
- 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Not applicable (N/A)

**Transport of dangerous goods by sea:**

With regard to IMDG 41-22:

**Stage 2**

Date of compilation: 1/9/2023      Revised: 12/8/2023      Version: 3 (Replaced 2)

**SECTION 14: TRANSPORT INFORMATION (continued)**



- 14.1 **UN number:** UN1993
- 14.2 **UN proper shipping name:** FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%))
- 14.3 **Transport hazard class(es):** 3  
**Labels:** 3
- 14.4 **Packing group, if applicable:** III
- 14.5 **Marine pollutant:** Yes
- 14.6 **Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**  
Special regulations: 274, 223, 955  
EmS Codes: F-E, S-E  
Physico-Chemical properties: see section 9  
Limited quantities: 5 L  
Segregation group: Not applicable (N/A)
- 14.7 **Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Not applicable (N/A)

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2024:



- 14.1 **UN number:** UN1993
- 14.2 **UN proper shipping name:** FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%))
- 14.3 **Transport hazard class(es):** 3  
**Labels:** 3
- 14.4 **Packing group, if applicable:** III
- 14.5 **Marine pollutant:** Yes
- 14.6 **Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**  
Physico-Chemical properties: see section 9
- 14.7 **Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Not applicable (N/A)

**SECTION 15: REGULATORY INFORMATION**

- 15.1 **Safety, health and environmental regulations specific for the product in question:**

- CONTINUED ON NEXT PAGE -

**SECTION 15: REGULATORY INFORMATION (continued)**

- CALIFORNIA LABOR CODE - The Hazardous Substances List: *propan-2-ol* (67-63-0) ; *Copper dinitrate* (3251-23-8) ; *Bornan-2-one* (76-22-2) ; *Benzyl acetate* (140-11-4) ; *Coumarin* (91-64-5) ; *Diphenyl ether* (101-84-8) ; *Diethyl phthalate* (84-66-2) ; *Eugenol* (97-53-0)
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986) - Birth defects or other reproductive harm: Not applicable (N/A)
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986) - Cancer: Not applicable (N/A)
- CANADA-Domestic Substances List (DSL): *Quaternary ammonium compounds, dicoco alkyl dimethyl, chlorides* (61789-77-3) ; *propan-2-ol* (67-63-0) ; *Water* (7732-18-5) ; *2,2'-(octadec-9-enylimino)bisethanol (2 EO)* (25307-17-9) ; *Carnauba wax* (8015-86-9) ; *Polyethylene wax* (9002-88-4) ; *Beeswax* (8012-89-3) ; *Poly(dimethylsiloxane), viscosity 350 cP (25°C)* (63148-62-9) ; *Poly(dimethylsiloxane), viscosity 1000 cP (25°C)* (63148-62-9) ; *Hectorite (clay mineral)* (12173-47-6) ; *Hexyl 2-(1-(diethylamino)hydroxyphenyl)methanoyl)benzoate* (302776-68-7) ; *Aluminium hydroxide* (21645-51-2) ; *Kaolin, calcined* (92704-41-1) ; *Dodecamethylcyclohexasiloxane* (540-97-6) ; *Decamethylcyclopentasiloxane* (541-02-6) ; *Octamethylcyclotetrasiloxane* (556-67-2) ; *[(methylene)bis(oxy)]dipropanol* (24800-44-0) ; *Dodecan-1-ol, ethoxylated* (9002-92-0) ; *Poly(dimethylsiloxane), viscosity 3000 cP (25°C)* (63148-62-9) ; *Octamethylcyclotetrasiloxane* (556-67-2) ; *3-iodo-2-propynyl Butylcarbamate* (55406-53-6) ; *Copper dinitrate* (3251-23-8) ; *Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)* (55965-84-9) ; *Bornan-2-one* (76-22-2) ; *(+)-pin-2(3)-ene* (7785-70-8) ; *Patchouli, oil* (8014-09-3) ; *P-menth-1-en-8-ol* (98-55-5) ; *Clove, ext.* (8000-34-8) ; *Eucalyptus oil* (8000-48-4) ; *Anisaldehyde* (123-11-5) ; *Pentyl salicylate* (2050-08-0) ; *Benzyl acetate* (140-11-4) ; *Cineole* (470-82-6) ; *Vanillin* (121-33-5) ; *2-methylbutyl salicylate* (51115-63-0) ; *P-mentha-1,4(8)-diene* (586-62-9) ; *Citronellal* (106-23-0) ; *Coumarin* (91-64-5) ; *Cinnamaldehyde* (104-55-2) ; *Piperonal* (120-57-0) ; *Pin-2(3)-ene* (80-56-8) ; *Geraniol* (106-24-1) ; *Terpineol* (8000-41-7) ; *Linalool* (78-70-6) ; *1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran* (1222-05-5) ; *Alpha-cedrene* (469-61-4) ; *Diphenyl ether* (101-84-8) ; *p-mentha-1,4-diene* (99-85-4) ; *Caryophyllene* (87-44-5) ; *Dipentene* (5989-54-8) ; *Citronellol* (106-22-9) ; *p-cymene* (99-87-6) ; *[3R-(3a,3a6,7b,8aa)]-octahydro-3,8,8-trimethyl-6-methylene-1H-3a,7-methanoazulene* (546-28-1) ; *Geranyl acetate* (105-87-3) ; *Camphene* (79-92-5) ; *Nerol* (106-25-2) ; *Diethyl phthalate* (84-66-2) ; *Cedrol* (77-53-2) ; *p-mentha-1,5-diene* (99-83-2) ; *Citral* (5392-40-5) ; *Eugenol* (97-53-0) ; *d-limonene* (5989-27-5) ; *2,2,2-trichloro-1-phenylethyl acetate* (90-17-5) ; *C.I.Acids Yellow 23* (1934-21-0)
- CANADA-Non-Domestic Substances List (NDSL): Not applicable (N/A)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantities: *Copper dinitrate* (3251-23-8) - 100 lb ; *Diethyl phthalate* (84-66-2) - U088
- Hazardous Air Pollutants (Clean Air Act): Not applicable (N/A)
- Massachusetts RTK - Substance List: *propan-2-ol* (67-63-0) ; *3-iodo-2-propynyl Butylcarbamate* (55406-53-6) ; *Copper dinitrate* (3251-23-8) ; *Bornan-2-one* (76-22-2) ; *Pin-2(3)-ene* (80-56-8) ; *Diphenyl ether* (101-84-8) ; *p-cymene* (99-87-6) ; *Diethyl phthalate* (84-66-2)
- Minnesota - Hazardous substances ERTK: *propan-2-ol* (67-63-0) ; *Bornan-2-one* (76-22-2) ; *Benzyl acetate* (140-11-4) ; *Diphenyl ether* (101-84-8) ; *Diethyl phthalate* (84-66-2)
- New Jersey Worker and Community Right-to-Know Act: *propan-2-ol* (67-63-0) ; *3-iodo-2-propynyl Butylcarbamate* (55406-53-6) ; *Copper dinitrate* (3251-23-8) ; *Bornan-2-one* (76-22-2) ; *Benzyl acetate* (140-11-4) ; *P-mentha-1,4(8)-diene* (586-62-9) ; *Pin-2(3)-ene* (80-56-8) ; *Diphenyl ether* (101-84-8) ; *Diethyl phthalate* (84-66-2)
- New York RTK - Substance list: *propan-2-ol* (67-63-0) ; *Copper dinitrate* (3251-23-8) ; *Bornan-2-one* (76-22-2) ; *P-mentha-1,4(8)-diene* (586-62-9) ; *Pin-2(3)-ene* (80-56-8) ; *Diphenyl ether* (101-84-8) ; *Camphene* (79-92-5) ; *Diethyl phthalate* (84-66-2)
- NTP (National Toxicology Program): Not applicable (N/A)
- OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096): Not applicable (N/A)
- Pennsylvania Worker and Community Right-to-Know Law: *propan-2-ol* (67-63-0) ; *Copper dinitrate* (3251-23-8) ; *Bornan-2-one* (76-22-2) ; *Pin-2(3)-ene* (80-56-8) ; *Diphenyl ether* (101-84-8) ; *p-cymene* (99-87-6) ; *Diethyl phthalate* (84-66-2)
- Rhode Island - Hazardous substances RTK: *Copper dinitrate* (3251-23-8) ; *Diethyl phthalate* (84-66-2)
- The Toxic Substances Control Act (TSCA) (USA, Puerto Rico): *Quaternary ammonium compounds, dicoco alkyl dimethyl, chlorides* (61789-77-3) ; *propan-2-ol* (67-63-0) ; *Water* (7732-18-5) ; *2,2'-(octadec-9-enylimino)bisethanol (2 EO)* (25307-17-9) ; *Carnauba wax* (8015-86-9) ; *Polyethylene wax* (9002-88-4) ; *Beeswax* (8012-89-3) ; *Poly(dimethylsiloxane), viscosity 350 cP (25°C)* (63148-62-9) ; *Poly(dimethylsiloxane), viscosity 1000 cP (25°C)* (63148-62-9) ; *Aluminium hydroxide* (21645-51-2) ; *Kaolin, calcined* (92704-41-1) ; *Dodecamethylcyclohexasiloxane* (540-97-6) ; *Decamethylcyclopentasiloxane* (541-02-6) ; *Octamethylcyclotetrasiloxane* (556-67-2) ; *[(methylene)bis(oxy)]dipropanol* (24800-44-0) ; *Dodecan-1-ol, ethoxylated* (9002-92-0) ; *Poly(dimethylsiloxane), viscosity 3000 cP (25°C)* (63148-62-9) ; *Octamethylcyclotetrasiloxane* (556-67-2) ; *3-iodo-2-propynyl Butylcarbamate* (55406-53-6) ; *Copper dinitrate* (3251-23-8) ; *Bornan-2-one* (76-22-2) ; *(+)-pin-2(3)-ene* (7785-70-8) ; *Patchouli, oil* (8014-09-3) ; *P-menth-1-en-8-ol* (98-55-5) ; *Clove, ext.* (8000-34-8) ; *Eucalyptus oil* (8000-48-4) ; *Anisaldehyde* (123-11-5) ; *Pentyl salicylate* (2050-08-0) ; *Benzyl acetate* (140-11-4) ; *Cineole* (470-82-6) ; *Vanillin* (121-33-5) ; *2-methylbutyl salicylate* (51115-63-0) ; *P-mentha-1,4(8)-diene* (586-62-9) ; *Citronellal* (106-23-0) ; *Coumarin* (91-64-5) ; *Cinnamaldehyde* (104-55-2) ; *Piperonal* (120-57-0) ; *Pin-2(3)-ene* (80-56-8) ; *Geraniol* (106-24-1) ; *Terpineol* (8000-41-7) ; *Linalool* (78-70-6) ; *1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran* (1222-05-5) ; *Alpha-cedrene* (469-61-4) ; *Diphenyl ether* (101-84-8) ; *p-mentha-1,4-diene* (99-85-4) ; *Caryophyllene* (87-44-5) ; *Dipentene* (5989-54-8) ; *Citronellol* (106-22-9) ; *p-cymene* (99-87-6) ; *[3R-(3a,3a6,7b,8aa)]-octahydro-3,8,8-trimethyl-6-methylene-1H-3a,7-methanoazulene* (546-28-1) ; *Geranyl acetate* (105-87-3) ; *Camphene* (79-92-5) ; *Nerol* (106-25-2) ; *Diethyl phthalate* (84-66-2) ; *Cedrol* (77-53-2) ; *p-mentha-1,5-diene* (99-83-2) ; *Citral* (5392-40-5) ; *Eugenol* (97-53-0) ; *d-limonene* (5989-27-5) ; *2,2,2-trichloro-1-phenylethyl acetate* (90-17-5) ; *C.I.Acids Yellow 23* (1934-21-0)
- Toxic chemical release reporting under EPCRA section 313 (40 CFR Part 372): *propan-2-ol* (67-63-0) ; *3-iodo-2-propynyl Butylcarbamate* (55406-53-6) ; *Copper dinitrate* (3251-23-8)

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information provided in this safety data sheet as a foundation for conducting workplace-specific risk assessments. These assessments will help establish the appropriate risk prevention measures for handling, using, storing, and disposing of this product.

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Date of compilation: 1/9/2023      Revised: 12/8/2023      Version: 3 (Replaced 2)

**SECTION 15: REGULATORY INFORMATION (continued)****Other legislation:**

Take into consideration other applicable federal, state, and local laws and local regulations.

**SECTION 16: OTHER INFORMATION****Legislation related to safety data sheets:**

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

**Texts of the legislative phrases mentioned in section 2:**

H336: May cause drowsiness or dizziness.

H372: Causes damage to organs through prolonged or repeated exposure (Inhalation).

H226: Flammable liquid and vapour.

**Texts of the legislative phrases mentioned in section 3:**

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**29 CFR 1910.1200:**

Acute Tox. 2: H310+H330 - Fatal in contact with skin or if inhaled.

Acute Tox. 3: H301 - Toxic if swallowed.

Acute Tox. 4: H302 - Harmful if swallowed.

Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled.

Acute Tox. 4: H332 - Harmful if inhaled.

Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways.

Eye Dam. 1: H318 - Causes serious eye damage.

Eye Irrit. 2A: H319 - Causes serious eye irritation.

Flam. Liq. 2: H225 - Highly flammable liquid and vapour.

Flam. Liq. 3: H226 - Flammable liquid and vapour.

Flam. Liq. 4: H227 - Combustible liquid.

Flam. Sol. 2: H228 - Flammable solid.

Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.

Skin Corr. 1C: H314 - Causes severe skin burns and eye damage.

Skin Irrit. 2: H315 - Causes skin irritation.

Skin Sens. 1: H317 - May cause an allergic skin reaction.

Skin Sens. 1A: H317 - May cause an allergic skin reaction.

STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure (Inhalation).

STOT SE 2: H371 - May cause damage to organs.

STOT SE 3: H335 - May cause respiratory irritation.

STOT SE 3: H336 - May cause drowsiness or dizziness.

**Advice related to training:**

According to 29 CFR 1910. 1200, training on chemical hazards is necessary for employees using this product. This training will facilitate their understanding and interpretation of the safety data sheet, as well as the product label.

**Principal bibliographical sources:**

Occupational Safety &amp; Health Administration (OSHA).

**Abbreviations and acronyms:**

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

CL50: Lethal Concentration 50

EC50: Effective concentration 50

Log-POW: Octanol-water partition coefficient

Koc: Partition coefficient of organic carbon

IARC: International Agency for Research on Cancer

Date of compilation: 1/9/2023

Revised: 12/8/2023

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Safety data sheet  
according to 29 CFR 1910.1200

**Stage 2**

Date of compilation: 1/9/2023

Revised: 12/8/2023

Version: 3 (Replaced 2)

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END OF SAFETY DATA SHEET

Date of compilation: 1/9/2023

Revised: 12/8/2023

Version: 3 (Replaced 2)

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