

# SAFETY DATA SHEET

EPOFIX HARDENER

## Section 1. Identification

**GHS product identifier** : EPOFIX HARDENER  
**Cat. No.** : 40200029, 40200031, 40200087, 50209028  
**Container size** : 130 ml, 500 ml  
**Chemical name** : Amines, polyethylenepoly-, triethylenetetramine fraction  
**Other means of identification** : polyethylenepolyamines, triethylenetetramine fraction; (2-aminoethyl){2-[(2-aminoethyl)amino]ethyl}amine  
**Product type** : Liquid.

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

**Product use** : For embedding and impregnation of materialographic specimens  
**Area of application** : Professional applications.

**Supplier's details** : Struers Inc.  
24766 Detroit Rd. Westlake  
Cleveland, OH 44145  
United States  
Telephone:+1 (440) 871 0071

**e-mail address of person responsible for this SDS** : struers@struers.dk

**Emergency telephone number (with hours of operation)** : National Capital Poison Center: 1-800-222-1222  
Infotrac: 1-800-535-5053  
Struers US:  
1-440-871-0071

## Section 2. Hazards 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** : H302 ACUTE TOXICITY (oral) - Category 4  
H312 ACUTE TOXICITY (dermal) - Category 4  
H314 SKIN CORROSION - Category 1B  
H318 SERIOUS EYE DAMAGE - Category 1  
H317 SKIN SENSITIZATION - Category 1

### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : H302 + H312 - Harmful if swallowed or in contact with skin.  
H314 - Causes severe skin burns and eye damage.  
H317 - May cause an allergic skin reaction.

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## Section 2. Hazards identification

### Precautionary statements

<b>Prevention</b>	: P280 - Wear protective gloves: > 8 hours (breakthrough time): Recommended: Butyl rubber gloves. / Nitrile gloves.. Wear protective clothing. Wear eye or face protection. P261 - Avoid breathing vapor. P270 - Do not eat, drink or smoke when using this product. P264 - Wash thoroughly after handling. P272 - Contaminated work clothing must not be allowed out of the workplace.
<b>Response</b>	: P304 + P340, P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. P301 + P310, P330, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353, P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. P363 - Wash contaminated clothing before reuse. P302 + P312, P352 - IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. Wash with plenty of water. P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention. P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
<b>Storage</b>	: P405 - Store locked up.
<b>Disposal</b>	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Supplemental label elements</b>	: Do not taste or swallow. Wash thoroughly after handling.
<b>Hazards not otherwise classified</b>	: Causes digestive tract burns.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Substance
<b>Chemical name</b>	: Amines, polyethylenepoly-, triethylenetetramine fraction
<b>Other means of identification</b>	: polyethylenepolyamines, triethylenetetramine fraction; (2-aminoethyl){2-[(2-aminoethyl)amino]ethyl}amine

### CAS number/other identifiers

**CAS number** : 90640-67-8

Ingredient name	Other names	%	CAS number
Amines, polyethylenepoly-, triethylenetetramine fraction	-	100	90640-67-8

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 and hence require reporting in this section.**



## Section 4. First aid measures

### Description of necessary 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. 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. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. 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.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes severe burns. Harmful in contact with skin. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed. Corrosive to the digestive tract. Causes burns.

#### 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

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



## Section 4. First aid measures

- 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. 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.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : Do not use water jet.

**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

**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.

## Section 6. Accidental release measures

### 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".

**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. Dispose of via a licensed waste disposal contractor.



## Section 6. Accidental release measures

- 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 for 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 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.

- 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.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Amines, polyethylenepoly-, triethylenetetramine fraction	None.

#### Biological exposure indices

None known.

- 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.
- 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 measures

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## Section 8. Exposure controls/personal protection

- 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: 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. > 8 hours (breakthrough time): Recommended: Butyl rubber gloves. / Nitrile gloves.
- 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.

## Section 9. Physical and chemical properties and safety characteristics

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

### Appearance

- Physical state** : Liquid.
- Color** : Yellow.
- Odor** : Amine.
- Odor threshold** : Not available.
- pH** : 10.7
- Melting point/freezing point** : -35°C (-31°F) [EU A.1]
- Boiling point, initial boiling point, and boiling range** : 270 to 300°C (518 to 572°F)
- Flash point** : Closed cup: 129°C (264.2°F)
- Evaporation rate** : Not available.
- Flammability** : Not available.
- Lower and upper explosion limit/flammability limit** : Not available.
- Vapor pressure** : <0.01 kPa (<0.075006 mm Hg) [OECD 104]
- Relative vapor density** : Not available.



## Section 9. Physical and chemical properties and safety characteristics

Relative density	: 0.94 to 0.98				
Density	: 0.971 g/cm <sup>3</sup> [25°C (77°F)]				
Solubility(ies)	: <table border="1"> <thead> <tr> <th>Media</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td>Water</td> <td>Soluble</td> </tr> </tbody> </table>	Media	Result	Water	Soluble
Media	Result				
Water	Soluble				
Solubility in water	: >1000 g/l [OECD 105]				
Miscible with water	: Yes.				
Partition coefficient: n-octanol/water	: Not available.				
Auto-ignition temperature	: Not available.				
Decomposition temperature	: Not available.				
SADT	: Not available.				
Viscosity	: Dynamic (room temperature): 20 to 30 mPa·s (20 to 30 cP) Kinematic (room temperature): 28.6 mm <sup>2</sup> /s (28.6 cSt) Kinematic (40°C (104°F)): 10.8 mm <sup>2</sup> /s (10.8 cSt)				
Flow time (ISO 2431)	: Not available.				
<u>Particle characteristics</u>					
Median particle size	: Not applicable.				
<u>Additional information</u>					
Physical/chemical properties comments	: VOC content: 0 g/l				

## Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	: Keep away from heat and direct sunlight.
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
Amines, polyethylenepoly-, triethylenetetramine fraction	LD50 Dermal	Rat - Male	1720 mg/kg	-
	LD50 Oral	Rat	1716.2 mg/kg	-



## Section 11. Toxicological information

### Irritation/Corrosion

Not available.

### Sensitization

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** :  Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

### Potential acute health effects

**Eye contact** : Causes serious eye damage.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : Causes severe burns. Harmful in contact with skin. May cause an allergic skin reaction.

**Ingestion** : Harmful if swallowed. Corrosive to the digestive tract. Causes burns.

### 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.





## Section 11. Toxicological information

### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

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.

### Numerical measures of toxicity

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Amines, polyethylenepoly-, triethylenetetramine fraction	1716.2	1720	N/A	N/A	N/A

## Section 12. Ecological information

### Toxicity

**Conclusion/Summary** : Not available.

### Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Amines, polyethylenepoly-, triethylenetetramine fraction	-	-	Not readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Amines, polyethylenepoly-, triethylenetetramine fraction	-2.65	-	low

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : 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	IMDG	IATA
UN number	UN2735	UN2735	UN2735
UN proper shipping name	Amines, liquid, corrosive, n.o.s. (Amines, polyethylenepoly-, triethylenetetramine fraction)	AMINES, LIQUID, CORROSIVE, N.O.S. (Amines, polyethylenepoly-, triethylenetetramine fraction)	Amines, liquid, corrosive, n.o.s. (Amines, polyethylenepoly-, triethylenetetramine fraction)
Transport hazard class(es)	8 	8 	8 
Packing group	II	II	II
Environmental hazards	No.	No.	No.

### Additional information

**DOT Classification** : **Limited quantity** Yes.  
**Packaging instruction** Exceptions: 154. Non-bulk: 202. Bulk: 242.  
**Quantity limitation** Passenger aircraft/rail: 1 L. Cargo aircraft: 30 L.  
**Special provisions** B2, IB2, T11, TP1, TP27

**IMDG** : **Emergency schedules** F-A, S-B  
**Special provisions** 274

**IATA** : **Quantity limitation** Passenger and Cargo Aircraft: 1 L. Packaging instructions: 851. Cargo Aircraft Only: 30 L. Packaging instructions: 855. Limited Quantities - Passenger Aircraft: 0.5 L. Packaging instructions: Y840.  
**Special provisions** A3, A803

**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 IMO instruments** : Not available.



## Section 15. Regulatory information

**U.S. Federal regulations** : TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
 United States inventory (TSCA 8b): Not determined.

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : ACUTE TOXICITY (oral) - Category 4  
 ACUTE TOXICITY (dermal) - Category 4  
 SKIN CORROSION - Category 1B  
 SERIOUS EYE DAMAGE - Category 1  
 SKIN SENSITIZATION - Category 1  
 HNOC - Corrosive to digestive tract

#### Composition/information on ingredients

Name	%	Classification
Amines, polyethylenepoly-, triethylenetetramine fraction	100	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1 HNOC - Corrosive to digestive tract

### SARA 313

Not applicable.

### State regulations

**Massachusetts** : This material is not listed.

**New York** : This material is not listed.

**New Jersey** : This material is not listed.

**Pennsylvania** : This material is not listed.

### California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol



## Section 15. Regulatory information

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.

## Section 16. Other information

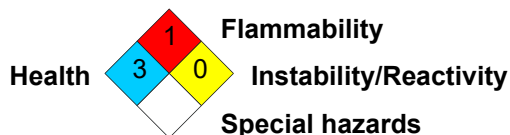
### Hazardous Material Information System (U.S.A.)

Health	/	3
Flammability		1
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.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

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



### Procedure used to derive the classification

Classification	Justification
ACUTE TOXICITY (oral) - Category 4	On basis of test data
ACUTE TOXICITY (dermal) - Category 4	On basis of test data
SKIN CORROSION - Category 1B	Expert judgment
SERIOUS EYE DAMAGE - Category 1	Expert judgment
SKIN SENSITIZATION - Category 1	Expert judgment

### History

**Date of issue/Date of revision** : 12/15/2022

**Date of previous issue** : 03/30/2022

**Version** : 2.01

**Prepared by** : Sphera Solutions



## Section 16. Other information

- Key to abbreviations**
- : ATE = Acute Toxicity Estimate
  - AMP = Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift
  - 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)
  - N/A = Not available
  - UN = United Nations
- References**
- : HCS (U.S.A.)- Hazard Communication Standard
  - International transport regulations

🔹 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.

