

## Safety Data Sheet

### KERAPOXY / B

Safety Data Sheet dated: 12/23/2024 - version 11

Date of first edition: 05/13/2015



## 1. IDENTIFICATION

### Product identifier

Mixture identification:

Trade name: KERAPOXY / B

Trade code: 905UC9999

### Recommended use of the chemical and restrictions on use

Recommended use: Hardener for epoxy products

Restrictions on use: Not available

### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company: MAPEI CORP. (USA and Puerto Rico)

1144 East Newport Center Drive - 33442 - Deerfield Beach - FL - USA

Phone: 954-246-8888

Responsible: RDProductSafety@mapei.com

### Emergency 24 hour numbers:

Emergency Number (USA/Canada) CHEMTREC 1(800) 424-9300 / 1(703) 527-3887

Emergency Transport CANUTEC (Canada) 1-613-996-6666

## 2. HAZARD(S) IDENTIFICATION



### Classification of the chemical

Serious eye damage, Category 1

Causes serious eye damage.

Skin Sensitization, Category 1A

May cause an allergic skin reaction.

Skin corrosion, Category 1C

Causes severe skin burns and eye damage.

### Label elements

#### Hazard pictograms and Signal Word



Danger

### Hazard statements

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

### Precautionary statements

P260 Do not breathe mist/vapours/spray.

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
1

P302+P352 IF ON SKIN: Wash with plenty of water.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
3

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
8

P310 Immediately call a doctor.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

P501 Dispose of contents/container in accordance with applicable regulations.

**Ingredient(s) with unknown acute toxicity:**

None

**Hazards not otherwise classified identified during the classification process:**

None

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substances**

Not Relevant

**Mixtures**

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

**List of components**

Qty	Name	Ident. Numb.	Classification
75-100 %	fatty acids, tall-oil, polymers with bisphenol a, diethylenetriamine, epichlorohydrin and tetraethylenepentamine;	CAS:68951-85-9 EC:620-444-4	Skin Irrit. 2, H315; Eye Irrit. 2A, H319
5-10 %	3-aminomethyl-3,5,5-trimethylcyclohexylamine	CAS:2855-13-2 EC:220-666-8 Index:612-067-00-9	Acute Tox. 4, H302; Skin Corr. 1B, H314; Eye Dam. 1, H318; Skin Sens. 1A, H317
5-10 %	benzyl alcohol	CAS:100-51-6 EC:202-859-9 Index:603-057-00-5	Acute Tox. 4, H302; Eye Irrit. 2A, H319
1-2.5 %	3,6,9-triazaundecamethylenediamine tetraethylenepentamine	CAS:112-57-2 EC:203-986-2 Index:612-060-00-0	Skin Corr. 1B, H314; Skin Sens. 1, H317; Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H312
1-2.5 %	N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine	CAS:10563-29-8 EC:234-148-4	Acute Tox. 4, H302; Skin Corr. 1A, H314; Skin Sens. 1B, H317

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### 4. FIRST AID MEASURES

**Description of first aid measures**

In case of skin contact:

Immediately take off all contaminated clothing.  
OBTAIN IMMEDIATE MEDICAL ATTENTION.  
Obtain medical attention if skin related symptoms persist.  
Remove contaminated clothing immediately and dispose of safely.  
After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.  
Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

Eye irritation

Eye damages

Skin Irritation

Erythema

**Indication of any immediate medical attention and special treatment needed**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

(see paragraph 4.1)

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### 5. FIRE-FIGHTING MEASURES

**Extinguishing media**

Suitable extinguishing media:

Water.

Carbon dioxide (CO<sub>2</sub>).

#### **Unsuitable extinguishing media:**

None in particular.

#### **Specific hazards arising from the chemical**

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products: Not available

Explosive properties: Not Relevant

Oxidizing properties: Not Relevant

#### **Special protective equipment and precautions for fire-fighters**

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

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## **6. ACCIDENTAL RELEASE MEASURES**

### **Personal precautions, protective equipment and emergency procedures**

Wear personal protection equipment.

Remove persons to safety.

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Limit leakages with earth or sand.

### **Methods and material for containment and cleaning up**

Suitable material for taking up: absorbing material, organic, sand

Retain contaminated washing water and dispose it.

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## **7. HANDLING AND STORAGE**

### **Precautions for safe handling**

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

### **Conditions for safe storage, including any incompatibilities**

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

Storage temperature: Not available

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## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **Control parameters**

#### **Community Occupational Exposure Limits (OEL)**

	<b>OEL Type</b>	<b>Country</b>	<b>Occupational Exposure Limit</b>
benzyl alcohol CAS: 100-51-6	MAK	GERMANY	Long Term: 22 mg/m <sup>3</sup> - 5 ppm
	MAK	SWITZERLAND	Long Term: 22 mg/m <sup>3</sup> - 5 ppm

#### **Predicted No Effect Concentration (PNEC) values**

3-aminomethyl-3,5,5-trimethylcyclohexylamine  
CAS: 2855-13-2

Exposure Route: Fresh Water; PNEC Limit: 0.06 mg/l

Exposure Route: Marine water; PNEC Limit: 0.006 mg/l

Exposure Route: Intermittent release; PNEC Limit: 0.23 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 5.784 mg/kg

Exposure Route: Marine water sediments; PNEC Limit: 0.578 mg/kg

Exposure Route: Soil; PNEC Limit: 1.121 mg/kg  
Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 3.18 mg/l  
Exposure Route: Fresh Water; PNEC Limit: 0.00068 mg/l

3,6,9-  
triazaundecamethylenedia  
mine  
tetraethylenepentamine  
CAS: 112-57-2

Exposure Route: Marine water; PNEC Limit: 0.00068 mg/l  
Exposure Route: Freshwater sediments; PNEC Limit: 3.34 mg/kg  
Exposure Route: Marine water sediments; PNEC Limit: 0.343 mg/kg  
Exposure Route: Soil; PNEC Limit: 0.683 mg/kg

N'-(3-aminopropyl)-N,N-  
dimethylpropane-1,3-  
diamine  
CAS: 10563-29-8

Exposure Route: Marine water; PNEC Limit: 0.00092 mg/l  
Exposure Route: Intermittent release; PNEC Limit: 0.092 mg/l  
Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 18.1 mg/l  
Exposure Route: Freshwater sediments; PNEC Limit: 0.0336 mg/kg

#### Derived No Effect Level (DNEL) values

3-aminomethyl-3,5,5-  
trimethylcyclohexylamine  
CAS: 2855-13-2

Exposure Route: Human Inhalation  
Worker Industry: 20.1 mg/m<sup>3</sup>

3,6,9-  
triazaundecamethylenedia  
mine  
tetraethylenepentamine  
CAS: 112-57-2

Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects  
Consumer: 10 mg/kg

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects  
Worker Professional: 0.74 mg/kg

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects  
Consumer: 0.32 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects  
Consumer: 0.53 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects  
Worker Professional: 0.00129 mg/l

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects  
Consumer: 0.00038 mg/l

N'-(3-aminopropyl)-N,N-  
dimethylpropane-1,3-  
diamine  
CAS: 10563-29-8

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects  
Worker Industry: 3.7 mg/m<sup>3</sup>; Consumer: 0.65 mg/m<sup>3</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects  
Worker Industry: 7.5 mg/m<sup>3</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects  
Worker Industry: 3.7 mg/m<sup>3</sup>; Consumer: 0.65 mg/m<sup>3</sup>

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects  
Worker Industry: 0.67 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects  
Consumer: 0.2 mg/kg

Appropriate engineering controls: Not available

#### Individual protection measures

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Suitable materials for safety gloves; 29 CFR 1910.138 - ANSI/ISEA 105:

Polychloroprene - CR: thickness  $\geq 0,5\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Nitrile rubber - NBR: thickness  $\geq 0,35\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Butyl rubber - IIR: thickness  $\geq 0,5\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Fluorinated rubber - FKM: thickness  $\geq 0,4\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Use impervious gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

#### Respiratory protection:

Respiratory protection must be used where exposure levels exceed workplace exposure limits. Refer to 29 CFR 1910.134 - CSA Z94.4 for information on selection and use of appropriate respiratory protection equipment.

Use adequate protective respiratory equipment.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Physical state: Liquid

Appearance and colour: liquid Amber

Odour: ammonia

Odour threshold: Not Relevant

pH: Not Relevant

Melting point / freezing point: Not Relevant

Initial boiling point and boiling range: Not Relevant

Flash point:  $94\text{ }^{\circ}\text{C}$  ( $201\text{ }^{\circ}\text{F}$ )

Evaporation rate: Not Relevant

Upper/lower flammability or explosive limits: Not Relevant

Vapour density: Not Relevant

Vapour pressure: Not Relevant

Relative density:  $0.97\text{ g/cm}^3$

Solubility in water: partly soluble

Solubility in oil: Not Relevant

Partition coefficient (n-octanol/water): Not Relevant

Auto-ignition temperature: Not Relevant

Decomposition temperature: Not Relevant

Viscosity: Not Relevant

Kinematic viscosity:  $> 20,5\text{ mm}^2/\text{sec}$  ( $40\text{ }^{\circ}\text{C}$ )  $\text{mm}^2/\text{s}$

Explosive properties: Not Relevant

Oxidizing properties: Not Relevant

Solid/gas flammability: Not Relevant

### Other information

Substance Groups relevant properties Not Relevant

Miscibility: Not Relevant

Fat Solubility: Not Relevant

Conductivity: Not Relevant

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## 10. STABILITY AND REACTIVITY

### Reactivity

Stable under normal conditions

### Chemical stability

Data not available.

### Possibility of hazardous reactions

None.

### Conditions to avoid

Stable under normal conditions.

### Incompatible materials

None in particular.

### Hazardous decomposition products

None.

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## 11. TOXICOLOGICAL INFORMATION

### Information on toxicological effects

#### Toxicological Information of the Preparation

a) acute toxicity Not classified

	Based on available data, the classification criteria are not met
b) skin corrosion/irritation	The product is classified: Skin corrosion, Category 1C(H314)
c) serious eye damage/irritation	The product is classified: Serious eye damage, Category 1(H318)
d) respiratory or skin sensitisation	The product is classified: Skin Sensitization, Category 1A(H317)
e) germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified
	Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified
	Based on available data, the classification criteria are not met
h) STOT-single exposure	Not classified
	Based on available data, the classification criteria are not met
i) STOT-repeated exposure	Not classified
	Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified
	Based on available data, the classification criteria are not met

#### Toxicological information on main components of the mixture:

3-aminomethyl-3,5,5-trimethylcyclohexylamine	a) acute toxicity	LC50 Inhalation Dust Rat > 5.01 mg/l 4h
		LD50 Oral Rat = 1030 mg/kg
		LD50 Skin Rat > 2000 mg/kg
benzyl alcohol	a) acute toxicity	LD50 Oral Rat = 1620 mg/kg
N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine	a) acute toxicity	LD50 Oral Rat = 1669 mg/kg
	b) skin corrosion/irritation	Skin Corrosive Skin Rabbit Positive
	d) respiratory or skin sensitisation	Skin Sensitization Skin Positive

#### Substance(s) listed on the IARC Monographs:

None

#### Substance(s) listed as OSHA Carcinogen(s):

None

#### Substance(s) listed as NIOSH Carcinogen(s):

None

#### Substance(s) listed on the NTP report on Carcinogens:

None

## 12. ECOLOGICAL INFORMATION

### Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

#### List of Eco-Toxicological properties of the product

Not classified for environmental hazards.

Based on available data, the classification criteria are not met

#### List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
3-aminomethyl-3,5,5-trimethylcyclohexylamine	CAS: 2855-13-2 - EINECS: 220-666-8 - INDEX: 612-067-00-9	a) Aquatic acute toxicity : LC50 Fish = 110 mg/L 96

a) Aquatic acute toxicity : EC50 Daphnia = 23 mg/L 48  
a) Aquatic acute toxicity : EC50 Daphnia = 388 mg/L 48  
a) Aquatic acute toxicity : EC50 Algae > 50 mg/L 72  
b) Aquatic chronic toxicity : NOEC Daphnia = 3 mg/L - 21 d  
a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna 14.6 mg/L 48h EPA  
a) Aquatic acute toxicity : EC50 Algae Desmodesmus subspicatus = 37 mg/L 72h IUCLID

benzyl alcohol CAS: 100-51-6 - a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 460 mg/L 96h  
EINECS: 202- EPA  
859-9 - INDEX:  
603-057-00-5

3,6,9- triazaundecamethylenediamine CAS: 112-57-2 - a) Aquatic acute toxicity : LC50 Fish Poecilia reticulata = 420 mg/L 96h  
tetraethylenepentamine EINECS: 203- IUCLID  
986-2 - INDEX:  
612-060-00-0

a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 24.1 mg/L 48h IUCLID

a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 2.1 mg/L 72h IUCLID

N'-(3-aminopropyl)-N,N- dimethylpropane-1,3-diamine CAS: 10563-29- a) Aquatic acute toxicity : LC50 Fish Danio rerio > 100 mg/L 96h ECHA  
8 - EINECS:  
234-148-4

#### Persistence and degradability

N.A.

#### Bioaccumulative potential

N.A.

#### Mobility in soil

N.A.

#### Other adverse effects

N.A.

### 13. DISPOSAL CONSIDERATIONS

#### Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

#### Methods of disposal:

Disposal of this product, solutions, packaging 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 nonrecyclable products via a licensed waste disposal contractor.

Do not dispose of waste into sewers.

#### Disposal considerations:

Do not allow to enter drains or watercourses.

Dispose of product according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

#### Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. Do not re-use empty containers.

### 14. TRANSPORT INFORMATION

#### UN number

DOT-UN Number: UN2735

ADR-UN number: 2735

IATA-Un number: 2735

IMDG-Un number: 2735

#### UN proper shipping name

DOT-Proper Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. (isophoronediamine)  
ADR-Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. (isophoronediamine)  
IATA-Technical name: AMINES, LIQUID, CORROSIVE, N.O.S. (isophoronediamine)  
IMDG-Technical name: AMINES, LIQUID, CORROSIVE, N.O.S. (isophoronediamine)

#### **Transport hazard class(es)**

DOT-Hazard Class: 8  
ADR-Class: 8  
IATA-Class: 8  
IMDG-Class: 8

#### **Packing group**

DOT Packing Group: III  
ADR-Packing Group: III  
IATA-Packing group: III  
IMDG-Packing group: III

#### **Environmental hazards**

Marine pollutant: No  
Environmental Pollutant: Not Applicable  
DOT-RQ: Not Applicable

#### **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not Applicable

#### **Special precautions**

Department of Transportation (DOT):

DOT-Special Provision(s): IB3, T7, TP1, TP28  
DOT-Label(s): 8  
DOT-Symbol: N/A  
DOT-Cargo Aircraft: 60 L  
DOT-Passenger Aircraft: 5 L  
DOT-Bulk: 241  
DOT-Non-Bulk: 203  
DOT-Limited Quantity threshold: 5 L

Road and Rail (ADR-RID):

ADR-Label: 8  
ADR-Hazard identification number: 80  
ADR-Transport category (Tunnel restriction code): 3 (E)

Air (IATA):

IATA-Passenger Aircraft: 852  
IATA-Cargo Aircraft: 856  
IATA-Label: 8  
IATA-Subsidiary hazards: -  
IATA-Erg: 8L  
IATA-Special Provisions: A3 A803

Sea (IMDG):

IMDG-Stowage Code: Category A  
IMDG-Stowage Note: SG35 SGG18  
IMDG-Subsidiary hazards: -  
IMDG-Special Provisions: 223 274  
IMDG-EMS: F-A, S-B

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## **15. REGULATORY INFORMATION**

### **USA - Federal regulations**

#### **TSCA - Toxic Substances Control Act**

All the components are listed on the TSCA inventory

##### **TSCA listed substances:**

fatty acids, tall-oil, polymers with is listed in TSCA Section 8b  
bisphenol a, diethylenetriamine,  
epichlorohydrin and  
tetraethylenepentamine;



3-aminomethyl-3,5,5-trimethylcyclohexylamine	is listed in TSCA	Section 8b
benzyl alcohol	is listed in TSCA	Section 8b
3,6,9-triazaundecamethylenediamine tetraethylenepentamine	is listed in TSCA	Section 8b
N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine	is listed in TSCA	Section 8b

#### **SARA - Superfund Amendments and Reauthorization Act**

##### **Section 302 - Extremely Hazardous Substances:**

No substances listed

##### **Section 304 - Hazardous substances:**

No substances listed

##### **Section 313 - Toxic chemical list:**

No substances listed

#### **CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act**

##### **Substance(s) listed under CERCLA:**

No substances listed

#### **CAA - Clean Air Act**

##### **CAA listed substances:**

benzyl alcohol	is listed in CAA	Section 112(b) - HON
3,6,9-triazaundecamethylenediamine tetraethylenepentamine	is listed in CAA	Section 112(b) - HON

#### **CWA - Clean Water Act**

##### **CWA listed substances:**

No substances listed

#### **USA - State specific regulations**

##### **California Proposition 65**

##### **Substance(s) listed under California Proposition 65:**

No substances listed

##### **Massachusetts Right to know**

##### **Substance(s) listed under Massachusetts Right to know:**

benzyl alcohol  
3,6,9-triazaundecamethylenediamine tetraethylenepentamine

##### **Pennsylvania Right to know**

##### **Substance(s) listed under Pennsylvania Right to know:**

benzyl alcohol  
3,6,9-triazaundecamethylenediamine tetraethylenepentamine

##### **New Jersey Right to know**

##### **Substance(s) listed under New Jersey Right to know:**

3-aminomethyl-3,5,5-trimethylcyclohexylamine  
3,6,9-triazaundecamethylenediamine tetraethylenepentamine

#### **Canada - Federal regulations**

##### **DSL - Domestic Substances List**

All the substances are listed in the DSL.

##### **NDSL - Non Domestic Substances List**

This product complies with NDSL inventory

##### **NPRI - National Pollutant Release Inventory**

##### **NPRI (National Pollutant Release Inventory) - List of substances listed.**

No substances listed

## **16. OTHER INFORMATION**

Safety Data Sheet dated: 12/23/2024 - version 11

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any

other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

This document was prepared by a competent person who has received appropriate training.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Code	Description
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
A.1/4/Dermal	Acute Tox. 4	Acute toxicity (dermal), Category 4
A.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
A.2/1A	Skin Corr. 1A	Skin corrosion, Category 1A
A.2/1B	Skin Corr. 1B	Skin corrosion, Category 1B
A.2/2	Skin Irrit. 2	Skin irritation, Category 2
A.3/1	Eye Dam. 1	Serious eye damage, Category 1
A.3/2A	Eye Irrit. 2A	Eye irritation, Category 2A
A.4.2/1	Skin Sens. 1	Skin Sensitization, Category 1
A.4.2/1A	Skin Sens. 1A	Skin Sensitization, Category 1A
A.4.2/1B	Skin Sens. 1B	Skin Sensitization, Category 1B
US-HAE/C2	Aquatic Chronic 2	Chronic (long term) aquatic hazard, category 2

#### Legend to abbreviations and acronyms used in the safety data sheet:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.  
IMDG: International Maritime Code for Dangerous Goods.  
IATA: International Air Transport Association.  
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).  
ICAO: International Civil Aviation Organization.  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).  
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.  
CLP: Classification, Labeling, Packaging.  
EINECS: European Inventory of Existing Commercial Chemical Substances.  
INCI: International Nomenclature of Cosmetic Ingredients.  
CAS: Chemical Abstracts Service (division of the American Chemical Society).  
GefStoffVO: Ordinance on Hazardous Substances, Germany.  
LC50: Lethal concentration, for 50 percent of test population.  
LD50: Lethal dose, for 50 percent of test population.  
DNEL: Derived No Effect Level.  
PNEC: Predicted No Effect Concentration.  
TLV: Threshold Limiting Value.  
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).  
STEL: Short Term Exposure limit.  
STOT: Specific Target Organ Toxicity.  
WGK: German Water Hazard Class.  
KSt: Explosion coefficient.

#### Paragraphs modified from the previous revision:

- 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING
- 2. HAZARDS IDENTIFICATION
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 9. PHYSICAL AND CHEMICAL PROPERTIES

- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 15. REGULATORY INFORMATION
- 16. OTHER INFORMATION