

## Safety Data Sheet

### KERAPOXY PART A

Safety Data Sheet dated: 7/12/2016 - version 3

Date of first edition: 5/13/2015

## 1. IDENTIFICATION

### Product identifier

Mixture identification:

Trade name: KERAPOXY PART A

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

Recommended use: Epoxy grout

Restrictions on use: N.A.

### 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

### Emergency 24 hour numbers:

(USA) CHEMTREC 1-800-424-9300

(Canada) CANUTEC 1-613-996-6666

## 2. HAZARD(S) IDENTIFICATION



### Classification of the chemical

Skin Irrit. 2	Causes skin irritation.
Eye Irrit. 2A	Causes serious eye irritation.
Skin Sens. 1B	May cause an allergic skin reaction.
Aquatic Chronic 2	Toxic to aquatic life with long lasting effects.

### Label elements

#### Symbols:



Warning

Code	Description
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
Code	Description
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260.A	Do not breathe dust or mist.
P264.2	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352.A	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P321.A	Specific treatment (see supplementary instructions on this label).

P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.
P405	Store locked up.
P501.A	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

This product contains crystalline silica (quartz sand). IARC has classified crystalline silica as a Group 1 carcinogen. Both IARC and NTP consider silica as a known human carcinogen. Evidence is based on the chronic and long-term exposure workers have had to respirable sized crystalline silica dust particles. Because this product is in liquid or paste form, it does not pose a dust hazard; therefore, this classification is not relevant. (Note: sanding of the hardened product may create a silica dust hazard)

This product contains titanium dioxide which IARC has classified as a Group 2B carcinogen (possibly carcinogenic to humans). Evidence is based on sufficient animal testing as a result of long-term inhalation at high concentrations of respirable amounts of titanium dioxide. Because this product is in liquid or paste form, it does not pose a dust hazard; therefore, this classification is not relevant. (Note: sanding of the hardened product may create a dust hazard)

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substances**

N.A.

**Mixtures**

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

**List of components**

Quantity	Name	Ident. Numb.	Classification
50-75 %	Silica Sand	CAS:14808-60-7	Carc. 1A, H350; STOT RE 1, H372
10-25 %	Bisphenol A epoxy resin	CAS:25085-99-8	Skin Sens. 1B; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Aquatic Chronic 2, H411
5-10 %	Titanium dioxide	CAS:13463-67-7	Carc. 2, H351
5-10 %	Alkyl epoxy resin	CAS:68609-97-2	Skin Irrit. 2, H315; Skin Sens. 1, H317
1-2.5 %	Phenol, polymer with formaldehyde, glycidyl ether	CAS:28064-14-4	Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Chronic 2, H411

**4. FIRST AID MEASURES**

**Description of first aid measures**

In case of skin contact:

- Immediately take off all contaminated clothing.
- 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).

**5. FIRE-FIGHTING MEASURES**

**Extinguishing media**

Suitable extinguishing media:

- Water.
- Carbon dioxide (CO2).

**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: N.A.  
Explosive properties: N.A.  
Oxidizing properties: N.A.

### 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.  
See protective measures under point 7 and 8.

### Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand  
Wash with plenty of water.

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## 7. HANDLING AND STORAGE

### Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.  
Exercise the greatest care when handling or opening the container.  
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

Storage temperature: N.A.  
Incompatible materials:  
None in particular.  
Instructions as regards storage premises:  
Adequately ventilated premises.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### List of components with OEL value

Component	OEL Type	Country	Ceiling	Long Term mg/m <sup>3</sup>	Long Term ppm	Short Term mg/m <sup>3</sup>	Short Term ppm	Behaviour	Note
Silica Sand	ACGIH			0,025					A2 - Suspected Human Carcinogen;lung cancer;pulmonary fibrosis;
Titanium dioxide	OSHA			15					
	ACGIH			10					A4 - Not Classifiable as a Human Carcinogen;lower respiratory tract irritation;

Appropriate engineering controls: N.A.

### 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:  
Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.  
Respiratory protection:  
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: Paste white

Odour: characteristic  
Odour threshold: N.A.  
pH: N.A.  
Melting point / freezing point: N.A.  
Initial boiling point and boiling range: N.A.  
Flash point: >100 °C (212 °F)  
Evaporation rate: N.A.  
Upper/lower flammability or explosive limits: N.A.  
Vapour density: N.A.  
Vapour pressure: N.A.  
Relative density: 1.45 g/cm<sup>3</sup>  
Solubility in water: Insoluble  
Solubility in oil: N.A.  
Partition coefficient (n-octanol/water): N.A.  
Auto-ignition temperature: N.A.  
Decomposition temperature: N.A.  
Viscosity: N.A.  
Explosive properties: N.A.  
Oxidizing properties: N.A.  
Solid/gas flammability: N.A.

#### Other information

Substance groups relevant properties: N.A.  
Miscibility: N.A.  
Fat Solubility: N.A.  
Conductivity: N.A.

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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 mixture:

There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

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

Silica Sand	a) acute toxicity	LD50 Oral Rat = 500mg/kg
Titanium dioxide	a) acute toxicity	LD50 Oral Rat > 10000mg/kg
Phenol, polymer with formaldehyde, glycidyl ether	a) acute toxicity	LD50 Skin Rabbit > 5000,00000mg/kg LD50 Oral Rat > 11400,00000mg/kg

If not differently specified, the information required in the regulation and listed below must be considered as N.A.

- a) acute toxicity
- b) skin corrosion/irritation
- c) serious eye damage/irritation
- d) respiratory or skin sensitisation
- e) germ cell mutagenicity

- f) carcinogenicity
- g) reproductive toxicity
- h) STOT-single exposure
- i) STOT-repeated exposure
- j) aspiration hazard

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

Silica Sand Group 1  
Titanium dioxide Group 2B

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

Silica Sand  
Titanium dioxide

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

Silica Sand  
Titanium dioxide

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

Silica Sand

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## 12. ECOLOGICAL INFORMATION

### Toxicity

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

Eco-Toxicological Information:

**List of components with eco-toxicological properties**

Quantity	Component	Ident. Numb.	Ecotox Infos
50-75 %	Silica Sand	CAS: 14808-60-7	LC50 a) Aquatic acute toxicity carp> 10000,00000mg/L 72h

### Persistence and degradability

N.A.

### Bioaccumulative potential

N.A.

### Mobility in soil

N.A.

### Other adverse effects

N.A.

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## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.

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## 14. TRANSPORT INFORMATION

### UN number

ADR-UN number: 3082  
DOT-UN Number: UN3082  
IATA-Un number: 3082  
IMDG-Un number: 3082

### UN proper shipping name

ADR-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A epoxy resin - Phenol, polymer with formaldehyde, glycidyl ether)  
DOT-Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A epoxy resin - Phenol, polymer with formaldehyde, glycidyl ether)  
IATA-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A epoxy resin - Phenol, polymer with formaldehyde, glycidyl ether)  
IMDG-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A epoxy resin - Phenol, polymer with formaldehyde, glycidyl ether)

### Transport hazard class(es)

ADR-Class: 9  
DOT-Hazard Class: 9  
IATA-Class: 9

IMDG-Class: 9

**Packing group**

ADR-Packing Group: III

DOT-Packing group: III

IATA-Packing group: III

IMDG-Packing group: III

**Environmental hazards**

Marine pollutant: Yes

Environmental Pollutant: N.A.

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

N.A.

**Special precautions**

Department of Transportation (DOT):

DOT-Special Provision(s): 8, 146, 173, 335, IB3, T4, TP1

DOT-Label(s): 9

DOT-Symbol: N/A

DOT-Cargo Aircraft: N/A

DOT-Passenger Aircraft: N/A

DOT-Bulk: N/A

DOT-Non-Bulk: N/A

Road and Rail (ADR-RID):

ADR exempt: No

ADR-Label: 9

ADR-Hazard identification number: 90

ADR-Tunnel Restriction Code: 3 (E)

Air (IATA):

IATA-Passenger Aircraft: 964

IATA-Cargo Aircraft: 964

IATA-Label: 9

IATA-Subrisk: -

IATA-Erg: 9L

IATA-Special Provisions: A97 A158

Sea (IMDG):

IMDG-Stowage Code: Category A

IMDG-Stowage Note: -

IMDG-Subrisk: -

IMDG-Special Provisions: 274 335

IMDG-Page: N/A

IMDG-Label: 9

IMDG-EMS: F-A, S-F

IMDG-MFAG: N/A

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**15. REGULATORY INFORMATION**

**USA - Federal regulations**

**TSCA - Toxic Substances Control Act**

**TSCA inventory:**

All the components are listed on the TSCA inventory

**TSCA listed substances:**

Silica Sand	is listed in TSCA	Section 8b
Bisphenol A epoxy resin	is listed in TSCA	Section 8b
Titanium dioxide	is listed in TSCA	Section 8b
Alkyl epoxy resin	is listed in TSCA	Section 8b
Phenol, polymer with formaldehyde, glycidyl ether	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:**

no substances listed

**CWA - Clean Water Act**

**CWA listed substances:**

no substances listed

**USA - State specific regulations**

**California Proposition 65**

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

Silica Sand	Listed as carcinogen
Titanium dioxide	Listed as carcinogen

**Massachusetts Right to know**

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

Silica Sand  
Titanium dioxide

**Pennsylvania Right to know**

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

Silica Sand  
Titanium dioxide

**New Jersey Right to know**

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

Silica Sand  
Titanium dioxide

**Canada- Federal regulations**

**DSL - Domestic Substances List**

**DSL Inventory:**

All the substances are listed in the DSL.

**NDSL - Non Domestic Substances List**

**NDSL Inventory:**

no substances listed

**NPRI - National Pollutant Release Inventory**

**Substances listed in NPRI:**

no substances listed

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**16. OTHER INFORMATION**

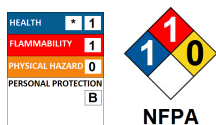
Code	Description
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.

H350 May cause cancer .  
H351 Suspected of causing cancer .  
H372 Causes damage to organs through prolonged or repeated exposure .  
H411 Toxic to aquatic life with long lasting effects.

Safety Data Sheet dated: 7/12/2016 - version 3

Product code: 1851

### Additional classification information



HMIS Health: 1 = Slight

HMIS Health - Is health hazard chronic?: Yes

HMIS Flammability: 1 = Combustible if heated

HMIS Reactivity: 0 = Minimal

HMIS P.P.E.: Safety glasses, gloves

NFPA Health: 1 = Slight

NFPA Flammability: 1 = Combustible if heated

NFPA Reactivity: 0 = Minimal

NFPA Special Risk: N.A.

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.

### 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
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 14. TRANSPORT INFORMATION
- 15. REGULATORY INFORMATION



- 16. OTHER INFORMATION

## Safety Data Sheet

### KERAPOXY PART B

Safety Data Sheet dated: 3/8/2017 - version 3

Date of first edition: 5/13/2015

## 1. IDENTIFICATION

### Product identifier

Mixture identification:

Trade name: KERAPOXY PART B

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

Recommended use: Hardener for epoxy products

Restrictions on use: N.A.

### 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

### Emergency 24 hour numbers:

(USA) CHEMTREC 1-800-424-9300

(Canada) CANUTEC 1-613-996-6666

## 2. HAZARD(S) IDENTIFICATION



### Classification of the chemical

Skin Corr. 1B	Causes severe skin burns and eye damage.
Eye Dam. 1	Causes serious eye damage.
Skin Sens. 1	May cause an allergic skin reaction.
Aquatic Chronic 3	Harmful to aquatic life with long lasting effects.

### Label elements

#### Pictograms and Signal Words



Danger

#### Hazard statements:

H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

#### Precautionary statements:

P260.1	Do not breathe mist/vapours/spray.
P264.2	Wash skin thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P352.A	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.
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.
P310.B	Immediately call a doctor.
P321.A	Specific treatment (see supplementary instructions on this label).

P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501.A	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

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substances**

N.A.

**Mixtures**

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

**List of components**

Quantity	Name	Ident. Numb.	Classification
5-10 %	Isophorone diamine	CAS:2855-13-2	Skin Corr. 1B, H314; Skin Sens. 1, H317; Aquatic Chronic 3, H412; Acute Tox. 4, H302; Acute Tox. 4, H312
5-10 %	Benzyl alcohol	CAS:100-51-6	Acute Tox. 4, H302; Acute Tox. 4, H332; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2A, H319
2.5-5 %	Tetraethylenepentamine	CAS:112-57-2	Skin Corr. 1B, H314; Skin Sens. 1, H317; Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H312
2.5-5 %	N,N'-DIMETHYLPROPANE-1,3-DIAMINE	CAS:111-33-1	Flam. Liq. 2, H225; Skin Corr. 1B, H314; Eye Dam. 1, H318

**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).

**5. FIRE-FIGHTING MEASURES**

**Extinguishing media**

Suitable extinguishing media:

- Water.
- Carbon dioxide (CO2).

**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: N.A.
- Explosive properties: N.A.

Oxidizing properties: N.A.

### **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.

See protective measures under point 7 and 8.

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

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

Wash with plenty of water.

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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**

Storage temperature: N.A.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

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

### **Control parameters**

No Data Available

Appropriate engineering controls: N.A.

### **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:

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

Respiratory protection:

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: Viscous amber

Odour: like: Amines

Odour threshold: N.A.

pH: N.A.

Melting point / freezing point: N.A.

Initial boiling point and boiling range: N.A.

Flash point: >100 °C (212 °F)

Evaporation rate: N.A.

Upper/lower flammability or explosive limits: N.A.

Vapour density: N.A.

Vapour pressure: N.A.

Relative density: 1.00 g/cm<sup>3</sup>

Solubility in water: Insoluble

Solubility in oil: N.A.

Partition coefficient (n-octanol/water): N.A.  
Auto-ignition temperature: N.A.  
Decomposition temperature: N.A.  
Viscosity: N.A.  
Explosive properties: N.A.  
Oxidizing properties: N.A.  
Solid/gas flammability: N.A.

#### Other information

Substance groups relevant properties: N.A.  
Miscibility: N.A.  
Fat Solubility: N.A.  
Conductivity: N.A.

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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 mixture:

There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

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

Isophorone diamine	a) acute toxicity	LD50 Oral Rat = 1030 mg/kg
Benzyl alcohol	a) acute toxicity	LD50 Skin Rabbit = 2000,00000 mg/kg LC50 Inhalation Rat = 8,80000 mg/l 4h LD50 Oral Rat = 1230 mg/kg
Tetraethylenepentamine	a) acute toxicity	LD50 Skin Rabbit = 660 µL/kg LD50 Oral Rat = 2100 mg/kg

If not differently specified, the information required in the regulation and listed below must be considered as N.A.

- a) acute toxicity
- b) skin corrosion/irritation
- c) serious eye damage/irritation
- d) respiratory or skin sensitisation
- e) germ cell mutagenicity
- f) carcinogenicity
- g) reproductive toxicity
- h) STOT-single exposure
- i) STOT-repeated exposure
- j) aspiration hazard

#### 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

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**12. ECOLOGICAL INFORMATION**

**Toxicity**

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

Eco-Toxicological Information:

**List of components with eco-toxicological properties**

Quantity	Component	Ident. Numb.	Ecotox Infos
5-10 %	Isophorone diamine	CAS: 2855-13-2	a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 14,60000 mg/L 48h EPA a) Aquatic acute toxicity : EC50 Daphnia magna = 42,00000 mg/L - 24hr a) Aquatic acute toxicity : EC50 Algae Desmodesmus subspicatus = 37 mg/L 72h IUCLID a) Aquatic acute toxicity : EC50 Algae idus = 110,00000 mg/L 96h
5-10 %	Benzyl alcohol	CAS: 100-51-6	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 460 mg/L 96h EPA a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 10 mg/L 96h EPA a) Aquatic acute toxicity : EC50 Daphnia water flea = 23 mg/L 48h
2.5-5 %	Tetraethylenepentamine	CAS: 112-57-2	a) Aquatic acute toxicity : LC50 Fish Poecilia reticulata = 420 mg/L 96h IUCLID a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 241 mg/L 48h IUCLID a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 21 mg/L 72h IUCLID

**Persistence and degradability**

N.A.

**Bioaccumulative potential**

N.A.

**Mobility in soil**

N.A.

**Other adverse effects**

N.A.

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**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.

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**14. TRANSPORT INFORMATION**

**UN number**

ADR-UN number: 2289  
DOT-UN Number: UN2289  
IATA-Un number: 2289  
IMDG-Un number: 2289

**UN proper shipping name**

ADR-Shipping Name: ISOPHORONEDIAMINE  
DOT-Proper Shipping Name: Isophoronediamine  
IATA-Technical name: ISOPHORONEDIAMINE  
IMDG-Technical name: ISOPHORONEDIAMINE

**Transport hazard class(es)**

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

**Packing group**

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

IMDG-Packing group: III

**Environmental hazards**

Marine pollutant: No

Environmental Pollutant: N.A.

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

N.A.

**Special precautions**

Department of Transportation (DOT):

DOT-Special Provision(s): IB3, T4, TP1

DOT-Label(s): 8

DOT-Symbol: N/A

DOT-Cargo Aircraft: N/A

DOT-Passenger Aircraft: N/A

DOT-Bulk: N/A

DOT-Non-Bulk: N/A

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-Subrisk: -

IATA-Erg: 8L

IATA-Special Provisions: A803

Sea (IMDG):

IMDG-Stowage Code: Category A

IMDG-Stowage Note: -

IMDG-Subrisk: -

IMDG-Special Provisions: -

IMDG-Page: N/A

IMDG-Label: N/A

IMDG-EMS: F-A, S-B

IMDG-MFAG: N/A

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**15. REGULATORY INFORMATION**

**USA - Federal regulations**

**TSCA - Toxic Substances Control Act**

**TSCA inventory:**

All the components are listed on the TSCA inventory

**TSCA listed substances:**

Isophorone diamine is listed in TSCA Section 8b

Benzyl alcohol is listed in TSCA Section 8b

Tetraethylenepentamine is listed in TSCA Section 8b

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  
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  
Tetraethylenepentamine

### Pennsylvania Right to know

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

Benzyl alcohol  
Tetraethylenepentamine

### New Jersey Right to know

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

Isophorone diamine  
Tetraethylenepentamine

## Canada - Federal regulations

### DSL - Domestic Substances List

#### DSL Inventory:

All the substances are listed in the DSL.

### NDSL - Non Domestic Substances List

#### NDSL Inventory:

List of substances included in the NDSL: N,N'-DIMETHYLPROPANE-1,3-DIAMINE cas: 111-33-1

### NPRI - National Pollutant Release Inventory

#### Substances listed in NPRI:

no substances listed

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## 16. OTHER INFORMATION

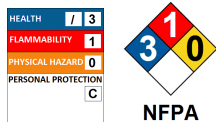
Code	Description
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Safety Data Sheet dated: 3/8/2017 - version 3

Product code: 1949

### Additional classification information





HMIS Health: 3 = Serious  
HMIS Flammability: 1 = Combustible if heated  
HMIS Reactivity: 0 = Minimal  
HMIS P.P.E.: Safety glasses, gloves, chemical apron  
NFPA Health: 3 = Serious  
NFPA Flammability: 1 = Combustible if heated  
NFPA Reactivity: 0 = Minimal  
NFPA Special Risk: NONE

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.

**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.

**\* Sheet model entirely changed in compliance to regulatory update.**