

Safety Data Sheet

KERAPOXY CQ PART A

Safety Data Sheet dated: 06/10/2021 - version 4

Date of first edition: 03/20/2017



1. Identification

Product identifier

Mixture identification:

Trade name: KERAPOXY CQ PART A

Other means of identification

Trade code: 2962

Recommended use and restrictions on use

Recommended use: Epoxy grout

Restrictions on use: N.A.

Supplier's details

Company: MAPEI INC. (Canada)

2900 Francis-Hughes Avenue

H7L 3J5 - Laval - QC - CAN

Emergency phone number

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

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

2. Hazard identification



Classification of the product

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Toxic to aquatic life with long lasting effects.

Label elements

Pictograms and Signal Words



Warning

Hazard statements:

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.

Precautionary statements:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust or mist.

P264 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 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	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	Dispose of contents/container in accordance with applicable regulations.

Other hazards

None

Ingredient(s) with unknown acute toxicity

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 WHMIS 2015 and related classification:

List of components

Concentration (% w/w)	Name	Ident. Numb.	Classification	Registration Number
50-75 %	Silica Sand	CAS:14808-60-7	STOT RE 1, H372; Carc. 1A, H350	
10-20 %	Bisphenol A epoxy resin	CAS:25085-99-8	Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Aquatic Chronic 2, H411; Skin Sens. 1B, H317	
10-20 %	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	
2.5-5 %	PHENOL, POLYMER WITH FORMALDEHYDE, GLYCIDYL ETHER	CAS:28064-14-4	Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Chronic 2, H411	N.A.

The actual concentration of the components listed above is withheld as a trade secret.

4. First-aid measures

Description of necessary first-aid measures

In case of skin contact:

- Immediately take off all contaminated clothing.
- 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 immediate medical attention and special treatment needed, if necessary

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)

5. Fire-fighting measures

Suitable and unsuitable extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the hazardous product

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.

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.

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.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

8. Exposure controls/personal protection

Control parameters

List of components with OEL value

Component	OEL Type	Country	Ceiling	Long Term mg/m3	Long Term ppm	Short Term mg/m3	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

MAK	GERMANY	0,3
ACGIH		10

A4 - Not Classifiable as a Human Carcinogen; lower respiratory tract irritation

MAK	AUSTRIA	5	10
MAK	SWITZERLAND	3	

Appropriate engineering controls

N.A.

Individual protection measures, such as personal protective equipment (PPE)

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.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state: Liquid

Appearance and colour: paste

Odour: Like: Ester

Odour threshold: No data available

pH: No data available

Melting point / freezing point: No data available

Initial boiling point and boiling range: No data available

Flash point: 100 °C (212 °F)

Evaporation rate: No data available

Upper/lower flammability or explosive limits: No data available

Vapour density: No data available

Vapour pressure: No data available

Relative density: 1.79 g/cm³

Solubility in water: Insoluble

Solubility in oil: No data available

Partition coefficient (n-octanol/water): No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

Explosive properties: No data available

Oxidizing properties: No data available

Solid/gas flammability: No data available

Other information

Substance Groups relevant properties No data available

Miscibility: No data available

Fat Solubility: No data available

Conductivity: No data available

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.

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 = 500 mg/kg
TITANIUM DIOXIDE	a) acute toxicity	LD50 Oral Rat > 10000 mg/kg
Alkyl epoxy resin	a) acute toxicity	LD50 Skin Rabbit > 3987 mg/kg LD50 Oral Rat = 17100 mg/kg
PHENOL, POLYMER WITH FORMALDEHYDE, GLYCIDYL ETHER	a) acute toxicity	LD50 Skin Rabbit > 5000,00000 mg/kg LD50 Oral Rat > 11400,00000 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
- Toxicological kinetics, metabolism
and distribution information
- 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

12. Ecological information

Ecotoxicity

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

List of components with eco-toxicological properties

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

Persistence and degradability

N.A.

Bioaccumulative potential

N.A.

Mobility in soil

N.A.

Other adverse effects

N.A.

13. Disposal considerations

Safe handling and methods for disposal

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

TDG-UN number: UN3082

ADR-UN number: 3082

DOT-UN Number: UN3082

IATA-Un number: 3082

IMDG-Un number: 3082

UN proper shipping name

TDG-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A epoxy resin - PHENOL, POLYMER WITH FORMALDEHYDE, GLYCIDYL ETHER)

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)

TDG-Class: 9

ADR-Class: 9

DOT-Hazard Class: 9

IATA-Class: 9

IMDG-Class: 9

Packing group

TDG-Packing Group: III
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 MARPOL 73/78 and the IBC Code)

N.A.

Special precautions in connection with transport or conveyance**TDG:**

TDG Special provisions: 16, 99

Department of Transportation (DOT):

DOT-Special Provision(s): 8, 146, 173, 335, IB3, T4, TP1, TP29
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-Transport category (Tunnel restriction code): 3 (-)

Air (IATA) :

IATA-Passenger Aircraft: 964
IATA-Cargo Aircraft: 964
IATA-Label: 9
IATA-Subsidiary hazards: -
IATA-Erg: 9L
IATA-Special Provisioning: A97 A158 A197

Sea (IMDG) :

IMDG-Stowage Code: Category A
IMDG-Stowage Note: -
IMDG-Subsidiary hazards: -
IMDG-Special Provisioning: 274 335 969
IMDG-Page: N/A
IMDG-Label: N/A
IMDG-EMS: F-A, S-F
IMDG-MFAG: N/A

15. Regulatory information**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

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

16. Other information

Safety Data Sheet dated: 6/10/2021 - version 4

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
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.

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
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 6. ACCIDENTAL RELEASE MEASURES
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 14. TRANSPORT INFORMATION
- 15. REGULATORY INFORMATION

Safety Data Sheet

KERAPOXY CQ PART B

Safety Data Sheet dated: 06/10/2021 - version 5

Date of first edition: 03/23/2017



1. Identification

Product identifier

Mixture identification:

Trade name: KERAPOXY CQ PART B

Other means of identification

Trade code: 2907

Recommended use and restrictions on use

Recommended use: Hardener for epoxy products

Restrictions on use: N.A.

Supplier's details

Company: MAPEI INC. (Canada)

2900 Francis-Hughes Avenue

H7L 3J5 - Laval - QC - CAN

Emergency phone number

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

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

2. Hazard identification



Classification of the product

Causes severe skin burns and eye damage.

Causes serious eye damage.

May cause an allergic skin reaction.

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.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P260 Do not breathe mist/vapours/spray.

P264 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.

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 Immediately call a doctor.

P321 Specific treatment (see supplementary instructions on this label).

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

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.
P501 Dispose of contents/container in accordance with applicable regulations.

Other hazards

None

Ingredient(s) with unknown acute toxicity

None

3. Composition/information on ingredients

Substances

N.A.

Mixtures

Hazardous components within the meaning of WHMIS 2015 and related classification:

List of components

Concentration (% w/w)	Name	Ident. Numb.	Classification	Registration Number
20-25 %	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; Eye Irrit. 2A, H319	
1-2.5 %	N,N'-DIMETHYLPROPANE-1,3-DIAMINE	CAS:111-33-1	Flam. Liq. 2, H225; Skin Corr. 1B, H314; Eye Dam. 1, H318	
1-2.5 %	TETRAETHYLENEPENTAMINE	CAS:112-57-2	Skin Sens. 1, H317; Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Corr. 1B, H314	
1-2.5 %	DIMETHYLDIPROPYLENETRIAMINE	CAS:10563-29-8	Acute Tox. 4, H302; Acute Tox. 4, H312; Eye Dam. 1, H318; Skin Corr. 1A, H314; Skin Sens. 1B, H317; Aquatic Acute 2, H401	

The actual concentration of the components listed above is withheld as a trade secret.

4. First-aid measures

Description of necessary first-aid measures

In case of skin contact:

Immediately take off all contaminated clothing.
OBTAIN IMMEDIATE MEDICAL ATTENTION.
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 immediate medical attention and special treatment needed, if necessary

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)

5. Fire-fighting measures

Suitable and unsuitable extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the hazardous product

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.

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.

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.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

8. Exposure controls/personal protection

Control parameters

List of components with OEL value

Component	OEL Type	Country	Ceiling	Long Term mg/m ³	Long Term ppm	Short Term mg/m ³	Short Term ppm	Behaviour Note
Benzyl alcohol	MAK	GERMANY		22	5			
	MAK	SWITZERLAND		22	5			

Appropriate engineering controls

N.A.

Individual protection measures, such as personal protective equipment (PPE)

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 $\geq 0,5$ mm; breakthrough time ≥ 480 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.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state: Liquid

Appearance and colour: paste Yellow

Odour: Like: Amines

Odour threshold: No data available

pH: No data available

Melting point / freezing point: No data available

Initial boiling point and boiling range: No data available

Flash point: $100\text{ }^{\circ}\text{C}$ ($212\text{ }^{\circ}\text{F}$)

Evaporation rate: No data available

Upper/lower flammability or explosive limits: No data available

Vapour density: No data available

Vapour pressure: No data available

Relative density: 1.04 g/cm^3

Solubility in water: Insoluble

Solubility in oil: No data available

Partition coefficient (n-octanol/water): No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

Explosive properties: No data available

Oxidizing properties: No data available

Solid/gas flammability: No data available

Other information

Substance Groups relevant properties No data available

Miscibility: No data available

Fat Solubility: No data available

Conductivity: No data available

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.

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

LD50 Skin Rat > 2000 mg/kg

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
LD50 Skin Rabbit = 2 g/kg
LD50 Oral Rat = 1230 mg/kg

TETRAETHYLENEPENTAMI a) acute toxicity LD50 Skin Rabbit = 660 µL/kg
NE
LD50 Oral Rat = 2100 mg/kg
LD50 Skin Rabbit = 660 µL/kg
LD50 Oral Rat = 3990 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
- Toxicological kinetics, metabolism and distribution information
- 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

12. Ecological information

Ecotoxicity

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

List of components with eco-toxicological properties

Component	Ident. Numb.	Ecotox Infos
Isophorone diamine	CAS: 2855-13-2	a) Aquatic acute toxicity : EC50 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
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

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 = 24,1 mg/L 48h IUCLID a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 2,1 mg/L 72h IUCLID
DIMETHYLDIPROPYLENETRIAMINE	CAS: 10563-29-8	a) Aquatic acute toxicity : LC50 Fish Danio rerio > 100 mg/L 96h ECHA

Persistence and degradability

N.A.

Bioaccumulative potential

N.A.

Mobility in soil

N.A.

Other adverse effects

N.A.

13. Disposal considerations

Safe handling and methods for disposal

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

TDG-UN number: UN2289

ADR-UN number: 2289

DOT-UN Number: UN2289

IATA-Un number: 2289

IMDG-Un number: 2289

UN proper shipping name

TDG-Shipping Name: ISOPHORONEDIAMINE

ADR-Shipping Name: ISOPHORONEDIAMINE

DOT-Proper Shipping Name: Isophoronediamine

IATA-Technical name: ISOPHORONEDIAMINE

IMDG-Technical name: ISOPHORONEDIAMINE

Transport hazard class(es)

TDG-Class: 8

ADR-Class: 8

DOT-Hazard Class: 8

IATA-Class: 8

IMDG-Class: 8

Packing group

TDG-Packing Group: III

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 MARPOL 73/78 and the IBC Code)

N.A.

Special precautions in connection with transport or conveyance

TDG:

TDG Special provisions: N/A

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-Subsidiary hazards: -

IATA-Erg: 8L

IATA-Special Provisioning: A803

Sea (IMDG) :

IMDG-Stowage Code: Category A

IMDG-Stowage Note: SG35

IMDG-Subsidiary hazards: -

IMDG-Special Provisioning: -

IMDG-Page: N/A

IMDG-Label: N/A

IMDG-EMS: F-A, S-B

IMDG-MFAG: N/A

15. Regulatory information

Canada - Federal regulations

DSL - Domestic Substances List

DSL Inventory:

List of substances included in the DSL:	Isophorone diamine	cas: 2855-13-2
	Benzyl alcohol	cas: 100-51-6
	TETRAETHYLENEPENTAMINE	cas: 112-57-2
	DIMETHYLDIPROPYLENETRIAMINE	cas: 10563-29-8

NDSL - Non Domestic Substances List

NDSL Inventory:

List of substances included in the NDSL:	N,N'-DIMETHYLPROPANE-1,3-DIAMINE	cas: 111-33-1
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NPRI - National Pollutant Release Inventory

Substances listed in NPRI:

No substances listed

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
N,N'-DIMETHYLPROPANE-1,3-DIAMINE	is listed in TSCA	Section 8b
TETRAETHYLENEPENTAMINE	is listed in TSCA	Section 8b
DIMETHYLDIPROPYLENETRIAMINE	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

16. Other information

Safety Data Sheet dated: 6/10/2021 - version 5

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
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.

H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

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
- 6. ACCIDENTAL RELEASE MEASURES
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 14. TRANSPORT INFORMATION