

Safety Data Sheet KERAPOXY CQ comp. B

Safety Data Sheet dated 5/1/2018, version 3

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name: KERAPOXY CQ comp. B

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use:

Hardener for epoxy products.

Uses advised against:

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1.3. Details of the supplier of the safety data sheet

Supplier:

MAPEI S.p.A. - Via Cafiero, 22 - 20158 Milano

Tel: +39-02-376731

Fax: +39-02-37673.214

Competent person responsible for the safety data sheet:

sicurezza@mapei.it

1.4. Emergency telephone number

MAPEI S.p.A. - Tel. +(39)02376731 - (office hours)

Poison Centre - Ospedale di Niguarda - Milan - Tel. +39/02/66101029

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

- ⚠ Danger, Skin Corr. 1B, Causes severe skin burns and eye damage.
- ⚠ Warning, Skin Sens. 1B, May cause an allergic skin reaction.
- ⚠ Warning, STOT SE 3, May cause respiratory irritation.
Aquatic Chronic 3, Harmful to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Hazard Statements:

H314 Causes severe skin burns and eye damage.

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H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements:

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
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 POISON CENTER.

Special Provisions:

None

Contains

Tall oil, reaction product with TEPA
3-aminomethyl-3,5,5-trimethylcyclohexylamine
3,6,9-triazaundecamethylenediamine; tetraethylenepentamine: May produce an allergic reaction.
3-Aminopropyldimethylamine: May produce an allergic reaction.

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

26.1 % Tall oil, reaction product with TEPA

CAS: 68555-22-6

⚠ 3.3/2 Eye Irrit. 2 H319

⚠ 3.8/3 STOT SE 3 H335

⚠ 3.2/2 Skin Irrit. 2 H315

⚠ 3.4.2/1B Skin Sens. 1B H317

24.8 % Fatty acids, C18-unsatd., dimers, oligomeric reaction products with 4,4'-isopropylidenediphenol -1-chloro-2,3-epoxypropane co-oligomer, tall-oil fatty acids, tetraethylenepentamine and triethylenetetramine

CAS: 106906-26-7, EC: 500-296-6

⚠ 3.2/2 Skin Irrit. 2 H315

⚠ 3.3/2 Eye Irrit. 2 H319

4.1/C3 Aquatic Chronic 3 H412

20 % 3-aminomethyl-3,5,5-trimethylcyclohexylamine

REACH No.: 01-2119514687-32-xxxx, Index number: 612-067-00-9, CAS: 2855-13-2, EC: 220-666-8

⚠ 3.1/4/Dermal Acute Tox. 4 H312

⚠ 3.1/4/Oral Acute Tox. 4 H302

⚠ 3.2/1B Skin Corr. 1B H314

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- ⚠ 3.3/1 Eye Dam. 1 H318
- ⚠ 3.4.2/1 Skin Sens. 1 H317
- 4.1/C3 Aquatic Chronic 3 H412

0.567 % 3,6,9-triazaundecamethylenediamine; tetraethylenepentamine
Index number: 612-060-00-0, CAS: 112-57-2, EC: 203-986-2

- ⚠ 3.2/1B Skin Corr. 1B H314
- ⚠ 3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317
- ⚠ 4.1/C2 Aquatic Chronic 2 H411
- ⚠ 3.1/4/Oral Acute Tox. 4 H302
- ⚠ 3.1/4/Dermal Acute Tox. 4 H312

0.567 % 3-Aminopropyldimethylamine
CAS: 109-55-7, EC: 203-680-9

- ⚠ 2.6/3 Flam. Liq. 3 H226
- ⚠ 3.2/1B Skin Corr. 1B H314
- ⚠ 3.3/1 Eye Dam. 1 H318
- ⚠ 3.1/4/Oral Acute Tox. 4 H302
- ⚠ 3.1/4/Dermal Acute Tox. 4 H312
- ⚠ 3.4.2/1 Skin Sens. 1 H317

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

CONSULT A PHYSICIAN IMMEDIATELY.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off 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.

In case of Inhalation:

In case of inhalation, consult a doctor immediately and show him packing or label.

4.2. Most important symptoms and effects, both acute and delayed

The product is harmful following acute exposure to it and poses a serious health threat if inhaled, ingested, or brought into contact with the skin.

The product is corrosive and, if brought into contact with the skin, causes burning, with the destruction of the entire thickness of skin tissue.

If brought into contact with the skin, the product may cause sensitisation of the skin.

4.3. 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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SECTION 5: Firefighting measures

- 5.1. Extinguishing media
Suitable extinguishing media:
Water.
CO2 or Dry chemical fire extinguisher.
Extinguishing media which must not be used for safety reasons:
None in particular.
- 5.2. Special hazards arising from the substance or mixture
Do not inhale explosion and combustion gases.
Burning produces heavy smoke.
The original ingredients or unidentified toxic and/or irritant compounds may be present in the combustion fumes.
- 5.3. Advice for firefighters
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.

SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures
Wear personal protection equipment.
Wear breathing apparatus if exposed to vapours/dusts/aerosols.
Provide adequate ventilation.
Use appropriate respiratory protection.
See protective measures under point 7 and 8.
- 6.2. Environmental precautions
Limit leakages with earth or sand.
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Retain contaminated washing water and dispose it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
Suitable material for taking up: absorbing material, organic, sand
- 6.3. Methods and material for containment and cleaning up
Rapidly recover the product, wearing protective clothing.
After the product has been recovered, rinse the area and materials involved with water.
Suitable material for taking up: absorbing material, organic, sand
Wash with plenty of water.
Retain contaminated washing water and dispose it.
- 6.4. Reference to other sections
See also section 8 and 13

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
Avoid contact with skin and eyes, inhalation of vapours and mists.
Use localized ventilation system.
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. (see point 10.5)
Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities
Keep away from food, drink and feed.
Incompatible materials:

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None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No occupational exposure limit available

DNEL Exposure Limit Values

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

Worker Industry: 20.1 mg/m³ - Exposure: Human Inhalation

3,6,9-triazaundecamethylenediamine; tetraethylenepentamine - CAS: 112-57-2

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

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

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

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

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

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

PNEC Exposure Limit Values

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

Target: Fresh Water - Value: 0.06 mg/l

Target: Marine water - Value: 0.006 mg/l

Target: MAP2 - Value: 0.23 mg/l

Target: Freshwater sediments - Value: 5.784 mg/kg

Target: Marine water sediments - Value: 0.578 mg/kg

Target: Soil (agricultural) - Value: 1.121 mg/kg

Target: Microorganisms in sewage treatments - Value: 3.18 mg/l

3,6,9-triazaundecamethylenediamine; tetraethylenepentamine - CAS: 112-57-2

Target: Fresh Water - Value: 0.00068 mg/l

Target: Marine water - Value: 0.00068 mg/l

Target: Freshwater sediments - Value: 3.34 mg/kg

Target: Marine water sediments - Value: 0.343 mg/kg

Target: Soil (agricultural) - Value: 0.683 mg/kg

8.2. Exposure controls

Eye protection:

Safety goggles.

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

Protection for skin:

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374):

nitrile rubber (NBR) - 0.4 mm coating thickness

natural rubber/natural latex (NR) - 0.5 mm coating thickness

chloroprene rubber (CR) - 0.5 mm coating thickness

polyvinylchloride (PVC) - 0.7 mm coating thickness

butyl rubber (butyl) - 0.7 mm coating thickness

fluoroelastomer (FKM) - 0.7 mm coating thickness

Supplementary note: The specifications are based on tests, literature data and information of

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glove
 manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.
 Manufacturer's directions for use should be observed because of great diversity of types.

Respiratory protection:

Use respiratory protection where ventilation is insufficient or exposure is prolonged.
 Use adequate protective respiratory equipment.
 A dust mask (P2) should be worn if above exposure limits (EN 149)
 In case of insufficient ventilation use mask with A filters (EN 14387).).

Personal Protective Equipment should comply with relevant CE standards (as EN 374 for gloves and EN 166 for goggles), correctly maintained and stored. Consult the supplier to check the suitability of equipment against specific chemicals and for user information.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	jelly solution
Colour:	light yellow
Odour:	ammonia
Odour threshold:	N.A.
pH:	11
Melting point / freezing point:	N.A.
Initial boiling point and boiling range:	Not determined
Solid/gas flammability:	N.A.
Upper/lower flammability or explosive limits:	N.A.
Vapour density:	Not determined
Flash point:	>100 °C
Evaporation rate:	Not determined
Vapour pressure:	<0.01 kPa (23°C)
Relative density:	1.06 g/cm ³ (23°C)
Vapour density (air=1):	Not determined
Solubility in water:	partly soluble
Solubility in oil:	soluble
Viscosity:	30000 mPa.s (23°C)
Auto-ignition temperature:	N.A. - No explosive or spontaneous ignition in contact with air at room temperature
Explosion limits(by volume):	N.A.
Decomposition temperature:	N.A.
Partition coefficient (n-octanol/water):	N.A. - This product is a mixture
Explosive properties:	N.A. - No components with explosive properties
Oxidizing properties:	N.A. - No component with oxidizing properties

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9.2. Other information
No additional information

SECTION 10: Stability and reactivity

- 10.1. Reactivity
Stable under normal conditions
- 10.2. Chemical stability
Stable under normal conditions
- 10.3. Possibility of hazardous reactions
It may generate toxic gases on contact with oxidising mineral acids, halogenated organic substances, organic peroxides and hydroperoxides, and powerful oxidising agents.
- 10.4. Conditions to avoid
Stable under normal conditions.
- 10.5. Incompatible materials
None in particular.
- 10.6. Hazardous decomposition products
None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Route(s) of entry:

Ingestion: Yes
Inhalation: Yes
Contact: Yes

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:

Toxicological information of the product:

N.A.

Toxicological information of the main substances found in the product:

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

a) acute toxicity:

Test: LC50 - Route: Inhalation Dust - Species: Rat > 5.01 mg/l - Duration: 4h

Test: LD50 - Route: Oral - Species: Rat = 1030 mg/kg

Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg

3,6,9-triazaundecamethylenediamine; tetraethylenepentamine - CAS: 112-57-2

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 3990 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit = 660 mg/kg

b) skin corrosion/irritation:

Test: Skin Sensitization - Species: Rabbit : Positive

3-Aminopropyldimethylamine - CAS: 109-55-7

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 1600 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat = 24.8 mg/l - Duration: 4h

Corrosive/Irritating Properties:

Skin:

Corrosive. The product can cause burns by contact.

Eye:

The product can cause damage to eyes by contact

Carcinogenic Effects:

No effects are known.

Mutagenic Effects:

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No effects are known.

Teratogenic Effects:

No effects are known.

Additional Information:

For this reason, the contact with the skin should be avoided. Once sensitization has occurred, exposures to small amounts of material may cause erythema and edema locally.

If not differently specified, the information required in Regulation (EU)2015/830 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

SECTION 12: Ecological information

12.1. Toxicity

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

Not available data on the mixture

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 110 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia = 23 mg/l - Duration h: 48

Endpoint: EC50 - Species: Daphnia = 388 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae > 50 mg/l - Duration h: 72

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Daphnia = 3 mg/l - Notes: 21 d

3,6,9-triazaundecamethylenediamine; tetraethylenepentamine - CAS: 112-57-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 310 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia = 24.1 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae > 2.1 mg/l - Duration h: 72

3-Aminopropyldimethylamine - CAS: 109-55-7

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 122 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia = 59.5 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae = 53.5 mg/l - Duration h: 72

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

Not available data on the mixture

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force. Dispose of this material and its container to hazardous or special waste collection point. Avoid release to the environment. Refer to special instructions/Safety data sheets.

91/156/EEC, 91/689/EEC, 94/62/EC and subsequent amendments.

Disposal of hardened product (EC waste code) : 08 04 10

Disposal of not hardened product (EC waste code) : 08 04 09

The suggested European waste code is just based on the composition of the product.

According to the specific process or application field a different waste code may be necessary.

SECTION 14: Transport information

14.1. UN number

UN Number: 2735

14.2. UN proper shipping name

ADR-Shipping Name: UN 2735 POLYAMINES, LIQUID, CORROSIVE N.O.S.

14.3. Transport hazard class(es)

Rail/Road(RID/ADR): 8

ADR-Upper number: NA

Air (ICAO/IATA): 8

Sea (IMO/IMDG): 8

LIMITED QUANTITY (3.4.6. ADR e 3.4.2. IMDG)

Dangerous goods in limited quantities

14.4. Packing group

Packing Group: III

ADR-Packing Group: III

IATA-Packing group: III

IMDG-Packing group: III

14.5. Environmental hazards

Marine pollutant: No

14.6. Special precautions for user

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) 2015/830

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restriction 40

Restrictions related to the substances contained:

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No restriction.

Legislative Decree no. 81 of the 9th of April 2008 Title XI "Dangerous substances - Chapter I - Protection against chemical agents"

Directive 2000/39/CE and s.m.i. (Professional threshold limit)

Legislative Decree no. 152 of the 3rd of April 2006 and subsequent modifications and additions. (Environmental regulations)

Directive 105/2003/CE (Seveso III): N.A.

ADR Agreement – IMDG Code – IATA Regulation

VOC (2004/42/EC) : N.A. g/l

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

15.2. Chemical safety assessment

No

SECTION 16: Other information

Text of phrases referred to under heading 3:

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

H312 Harmful in contact with skin.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H411 Toxic to aquatic life with long lasting effects.

H226 Flammable liquid and vapour.

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

Main bibliographic sources:

NIOSH - Registry of toxic effects of chemical substances

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

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

This MSDS cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances.

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport

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ICAO:	Association" (IATA). International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
LTE:	Long-term exposure.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STE:	Short-term exposure.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWATLV:	Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
OEL:	Substance with a Union workplace exposure limit.
VLE:	Threshold Limiting Value.
WGK:	German Water Hazard Class.
TSCA:	United States Toxic Substances Control Act Inventory
DSL:	DSL - Canadian Domestic Substances List
N.A.:	Not available