

Safety Data Sheet

KERAPOXY comp.A



Safety Data Sheet dated 18/11/2005, version 4

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Trade name: KERAPOXY comp.A

Product type and use:

Acid-resistant epoxy grout and adhesive for ceramic tiles.

Supplier:

MAPEI S.p.A. -Via Cafiero 22 - Milan -ITALY

Emergency telephone number of the company and/or of an authorised advisory centre:

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

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

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components within the meaning of EEC directive 67/548 and corresponding classification:

12.5% - 19.99% reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)

N. EEC/67/548: 603-074-00-8 CAS: 25068-38-6 EINECS: 500-033-5

N Xi R51/53 R36/38 R43

3% - 4.99% oxirane, mono[(C12-14 -alkyloxy)methyl] derivs.

N. EEC/67/548: 603-103-00-4 CAS: 68609-97-2 EINECS: 271-846-8

Xi R38 R43

1% - 2.49% reaction product: bisphenol-F-(epichlorhydrin)

CAS: 9003-36-5

Xi N R36/38 R43 R51/53

3. HAZARDS IDENTIFICATION

If brought into contact with the eyes, the product causes irritation that may last for over 24 hours, and if brought into contact with the skin it causes significant inflammation with erythema, scabs, and oedema.

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

This preparation contains low molecular weight epoxy resins. Cross sensitisation to other epoxies is possible. Avoid also exposure to spray mist and vapour.

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

4. FIRST AID MEASURES

Contact with skin:

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.

Contact with eyes:

Wash immediately and thoroughly with running water, keeping eyelids raised, for at least 10 minutes. Following this, protect the eyes with sterile gauze or a clean, dry, handkerchief.

OBTAIN A MEDICAL EXAMINATION.

Swallowing:

A suspension of activated charcoal in water, or liquid petrolatum may be administered.

Inhalation:

Ventilate the premises. The patient is to be removed immediately from the premises contaminated and made to rest in a well ventilated area. Should the patient feel unwell, consult a physician.

5. FIRE-FIGHTING MEASURES

Recommended extinguishers:

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Water, CO₂, Foam, Chemical powders, according to the materials involved in the fire.

Extinguishers not to be used:
None in particular.

Risks arising from combustion:
The original ingredients or unidentified toxic and/or irritant compounds may be present in the combustion fumes.
In case of incomplete combustion or pyrolysis, phenolic oxide and/or carbonic oxide can be formed.
Avoid inhaling the fumes.

Protective equipment:
Use protection for the airways.

6. ACCIDENTAL RELEASE MEASURES

Measures for personal safety:
Use a mask, gloves and protective clothing.

Environmental measures:
Limit leakages with earth or sand.
If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities.

Cleaning methods:
Rapidly recover the product. To so do, wear protective clothing.
If the product is in a liquid form, stop it from entering the drainage system.
Recover the product for re-use if possible, or for elimination. The product might, where appropriate, be absorbed by inert material.
After the product has been recovered, rinse the area and materials involved with water.

7. HANDLING AND STORAGE

Handling precautions:
Avoid contact and inhalation of the vapours. See, too, paragraph 8 below.
Do not eat or drink while working.

Incompatible materials:
None in particular.

Storage conditions:
Always keep the containers tightly closed.

Instructions as regards storage premises:
Adequately ventilated premises.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Precautionary measures:
Give adequate ventilation to the premises where the product is stored and/or handled.

Respiratory protection:
Not needed for normal use.

Protection for hands:
Use protective rubber gloves.
The use of LLPDE (0,06 mm), nitrile (0,4) or butyl (0,5 mm) gloves is suggested.
Latex gloves are not recommended.

Eye protection:
Not needed for normal use.

Protection for skin:
Use clothing that provides comprehensive protection to the skin.
All the individual protection devices must be consistent to CE relevant standards (as EN 374 for gloves and EN 166 for goggles), maintained efficient and stored in a appropriate way. The life of the protection devices against the chemical agents depends on various factors (the way they are used, climatic factors and storage conditions), that can remarkably reduce also the life foreseen by CE standards. The consultation of the supplier of the protection devices is always recommended.
The education of the worker to the use of the equipment devices is mandatory.

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Exposure limit value of single components:
None

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	paste
Colour:	various
Odour:	typical
pH:	==
Boiling point:	== °C
Flash point:	== °C
Autoignition temperature:	== °C
Explosion limits(by volume):	==
Vapour pressure:	0.01 kPa (23°C)
Relative density:	1.65 g/cm ³ (23°C)
Solubility in water:	insoluble
Lipid solubility:	soluble
Viscosity:	2000000 mPa.s (23°C)

10. STABILITY AND REACTIVITY

Conditions to avoid:
Stable under normal conditions.
It may catch fire on contact with powerful oxidising agents.

11. TOXICOLOGICAL INFORMATION

Route(s) of entry:
Ingestion: Yes
Inhalation: Yes
Contact: Yes

Toxicological information related to the product:

No toxicological data are available at the moment on the product itself.

The concentration of each substance should be borne in mind in assessing the toxicological effects deriving from the preparation.

Corrosive/Irritating Properties:

Skin:
The product can cause irritation by contact.

Eye:
The product can cause irritation by contact

Sensitizing Properties:

Frequent contact may cause sensitization.

Carcinogenic Effects:

No effects are known.

Mutagenic Effects:

No effects are known.

Teratogenic Effects:

No effects are known.

Additional Information:

Liquid epoxy resin contained in this material causes only minor skin irritation. However, all epoxy resins are capable of causing sensitizing of the skin.

Susceptibility to skin irritation and sensitization varies from person to person.

In a sensitized individual the allergic dermatitis may not appear until after several days or weeks of frequent and prolonged contact.

Therefore, even though the skin irritation potential is slight, skin contact should be avoided. Once sensitization has occurred, exposure of the skin to very small quantities of the material may cause erythema and edema.

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12. ECOLOGICAL INFORMATION

Although no experimental data are available, the product is expected to be only partly biodegradable.
Adopt sound working practices, so that the product is not released into the environment.

List of environmentally dangerous substances contained in this preparation and their classification:
12.5% - 19.99% reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)

N. EEC/67/548: 603-074-00-8 CAS: 25068-38-6 EINECS: 500-033-5

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

1% - 2.49% reaction product: bisphenol-F-(epichlorhydrin)

CAS: 9003-36-5

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Recover if possible. In so doing, comply with the local and national regulations currently in force.

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.

14. TRANSPORT INFORMATION

UN Number: ==

Rail/Road(RID/ADR): no dangerous good

Sea (IMO/IMDG): no dangerous good

MAR/POL 73/78,Annex III: No

Air (ICAO/IATA): no dangerous good

15. REGULATORY INFORMATION

Classification and Labelling according to EC Directive 99/45:

Symbols:

Xi Irritant

R Phrases:

R36/38 Irritating to eyes and skin.

R43 May cause sensitization by skin contact.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S Phrases:

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S56 Dispose of this material and its container to hazardous or special waste collection point.

S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

S24 Avoid contact with skin.

S37 Wear suitable gloves.

Special Provisions:

Contains epoxy constituents. See information supplied by the manufacturer.

Contents:

epoxy resin (number average molecular weight <= 700)

oxirane, mono[(C12-14 -alkyloxy)methyl] derivs.

16. OTHER INFORMATION

Main bibliographic sources:

NIOSH - Registry of toxic effects of chemical substances (1983)

Safety Data Sheet KERAPOXY comp.A

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

ACGIH - Treashold Limit Values (TLV)

SAX'S - Dangerous properties of industrial materials - Tenth Edition

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.

Text of R phrases referred to under heading 2:

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

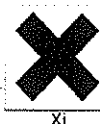
R36/38 Irritating to eyes and skin.

R43 May cause sensitization by skin contact.

R38 Irritating to skin.

Paragraphs modified from the previous revision:

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING
2. COMPOSITION/INFORMATION ON INGREDIENTS
3. HAZARDS IDENTIFICATION
5. FIRE-FIGHTING MEASURES
10. STABILITY AND REACTIVITY
11. TOXICOLOGICAL INFORMATION
13. DISPOSAL CONSIDERATIONS
15. REGULATORY INFORMATION



1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Trade name: KERAPOXY comp.B

Product type and use:

Hardener for epoxy products.

Supplier:

MAPEI S.p.A. -Via Cafiero 22 - Milan -ITALY

Emergency telephone number of the company and/or of an authorised advisory centre:

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

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

Competent person responsible for the safety data sheet:

sicurezza@mapei.it

2. HAZARDS IDENTIFICATION

Properties / Symbols:

Xi Irritant

R Phrases:

R36/38 Irritating to eyes and skin.

R43 May cause sensitization by skin contact.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

If brought into contact with the eyes, the product causes irritation that may last for over 24 hours, and if brought into contact with the skin it causes significant inflammation with erythema, scabs, and oedema.

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

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components within the meaning of EEC directive 67/548 and corresponding classification:

7% - 10% benzyl alcohol

N. EEC/67/548: 603-057-00-5 CAS: 100-51-6 EC: 202-859-9

Xn; R20/22

5% - 7% 3-aminomethyl-3,5,5-trimethylcyclohexylamine

N. EEC/67/548: 612-067-00-9 CAS: 2855-13-2 EC: 220-666-8

Xn,Xi,C; R21/22-34-43-52-53

1% - 3% 3,6,9-triazaundecamethylenediamine

N. EEC/67/548: 612-060-00-0 CAS: 112-57-2 EC: 203-986-2

Xn,Xi,C,N; R21/22-34-43-51-53

4. FIRST AID MEASURES

Contact with skin:

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.

Contact with eyes:

Wash immediately and thoroughly with running water, keeping eyelids raised, for at least 10 minutes. Following this, protect the eyes with sterile gauze or a clean, dry, handkerchief. OBTAIN A MEDICAL EXAMINATION.

Swallowing:

Induce vomiting. SEEK A MEDICAL EXAMINATION IMMEDIATELY and present the safety-data sheet.

A suspension of activated charcoal in water, or liquid petrolatum may be administered.

Inhalation:

Ventilate the premises. The patient is to be removed immediately from the premises contaminated and made to rest in a well ventilated area. Should the patient feel unwell, consult a physician.

5. FIRE-FIGHTING MEASURES

Recommended extinguishers:

Water, CO₂, Foam, Chemical powders, according to the materials involved in the fire.

Extinguishers not to be used:

None in particular.

Risks arising from combustion:

The original ingredients or unidentified toxic and/or irritant compounds may be present in the combustion fumes.

Nitrogen oxide may be present in the combustion fumes.

Avoid inhaling the fumes.

Protective equipment:

Use protection for the airways.

6. ACCIDENTAL RELEASE MEASURES

Measures for personal safety:

Use a mask, gloves and protective clothing.

Environmental measures:

Limit leakages with earth or sand.

None in particular.

If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities.

Cleaning methods:

Rapidly recover the product, wearing protective clothing.

If the product is in a liquid form, stop it from entering the drainage system.

Recover the product for re-use if possible, or for elimination. The product might, where appropriate, be absorbed by inert material.

After the product has been recovered, rinse the area and materials involved with water.

7. HANDLING AND STORAGE

Handling precautions:

Avoid contact and inhalation of the vapours. See, too, paragraph 8 below.

Do not eat or drink while working.

Incompatible materials:

None in particular.

Storage conditions:

Always keep the containers tightly closed.

Instructions as regards storage premises:

Adequately ventilated premises.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Precautionary measures:

Give adequate ventilation to the premises where the product is stored and/or handled.

Respiratory protection:

Not needed for normal use.

In case of insufficient ventilation use mask with AK2 filters (EN 141).

Protection for hands:

Use protective rubber gloves.

The use of LLPDE (0,06 mm), nitrile (0,4) or butyl (0,5 mm) gloves is suggested.

Latex gloves are not recommended.

Eye protection:

Not needed for normal use.

Protection for skin:

Use clothing that provides comprehensive protection to the skin.

All the individual protection devices must be consistent to CE relevant standards (as EN 374 for gloves and EN 166 for goggles), maintained efficient and stored in an appropriate way. The life of the protection devices against the chemical agents depends on various factors (the way they are used, climatic factors and storage conditions), that can remarkably reduce also the life foreseen by CE standards. The consultation of the supplier of the protection devices is always recommended.

The education of the worker to the use of the equipment devices is mandatory.

Exposure limit value of single components:

None

Carry out the control of the concentrations of the substances with exposure limits assigned, in the working place according to local dispositions

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	liquid
Colour:	brown
Odour:	ammonia
pH:	11
Melting point:	== °C
Boiling point:	== °C
Flash point:	>100 °C
Solid/gas flammability:	N.A.
Autoignition temperature:	== °C
Explosion limits(by volume):	==
Oxidizing properties:	N.A.
Vapour pressure:	<0.01 kPa (23°C)
Relative density:	1.1 g/cm ³ (23°C)
Solubility in water:	partly soluble
Lipid solubility:	soluble
Viscosity:	900 mPa.s (23°C)
Vapour density (air=1):	N.A.

10. STABILITY AND REACTIVITY

Conditions to avoid:

Stable under normal conditions.

It may generate flammable gases on contact with elementary metals (alkalis and alkaline earth) and powerful reducing agents.

It may generate toxic gases on contact with oxidising mineral acids, halogenated organic substances, organic peroxides and hydroperoxides, and powerful oxidising agents.

It may catch fire on contact with powerful oxidising agents.

11. TOXICOLOGICAL INFORMATION

Route(s) of entry:

Ingestion: Yes

Inhalation: Yes

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KERAPOXY comp.B

Contact: Yes

Toxicological information related to the product:
No toxicological data are available at the moment on the product itself.
The concentration of each substance should be borne in mind in assessing the toxicological effects deriving from the preparation.

Set out below is the toxicological information relating to the main substances in the preparation.
3-aminomethyl-3,5,5-trimethylcyclohexylamine
DL50 orale/ratto: 1030 mg/kg

Corrosive/Irritating Properties:
Skin:
The product can cause irritation by contact.

Eye:
The product can cause irritation by contact

Sensitizing Properties:
Frequent contact may cause sensitization.

Carcinogenic Effects:
No effects are known.

Mutagenic Effects:
No effects are known.

Teratogenic Effects:
No effects are known.

Additional Information:
Susceptibility to skin irritation and sensitization varies from person to person.
In a sensitized individual the allergic dermatitis may not appear until after several days or weeks of frequent and prolonged contact.
Therefore, even though the skin irritation potential is slight, skin contact should be avoided. Once sensitization has occurred, exposure of the skin to very small quantities of the material may cause erythema and edema.

12. ECOLOGICAL INFORMATION

Biodegradability: no data available on the preparation.
Adopt good industrial practices, so that the product is not released into the environment.

List of environmentally dangerous substances contained in this preparation and their classification:

5% - 7% 3-aminomethyl-3,5,5-trimethylcyclohexylamine
N. EEC/67/548: 612-067-00-9 CAS: 2855-13-2 EC: 220-666-8
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

1% - 3% 3,6,9-triazaundecamethylenediamine
N. EEC/67/548: 612-060-00-0 CAS: 112-57-2 EC: 203-986-2
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Recover if possible. 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.
Where applicable, refer to the following regulatory provisions : 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.

14. TRANSPORT INFORMATION

UN Number:	==
Rail/Road(RID/ADR):	no dangerous good
Sea (IMO/IMDG):	no dangerous good
MAR/POL 73/78,Annex III:	No
Air (ICAO/IATA):	no dangerous good

15. REGULATORY INFORMATION

Council Directive 67/548/EEC (Classification, packaging and labelling of dangerous substances) and subsequent amendments. Commission Directive 1999/45/EC (Classification, packaging and labelling of dangerous preparation) and subsequent amendments. Commission Directive 98/24/EC (Protection of the health and safety of workers from the risk related to chemical agent). Commission Directive 2000/39/EC (Occupational exposure limit values). Regulation (EC) No 1907/2006 (REACH).

Symbols:

Xi Irritant

R Phrases:

R36/38 Irritating to eyes and skin.

R43 May cause sensitization by skin contact.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S Phrases:

S24 Avoid contact with skin.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37 Wear suitable gloves.

S56 Dispose of this material and its container to hazardous or special waste collection point.

S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Contents:

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

16. OTHER INFORMATION

Main bibliographic sources:

NIOSH - Registry of toxic effects of chemical substances (1983)
Istituto Superiore di Sanità - Schede tossicologiche di solventi organici utilizzati in cicli tecnologici industriali (1985)
Istituto Superiore di Sanità - Inventario Nazionale Sostanze Chimiche
ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
ACGIH - Threshold Limit Values - 2004 edition
SAX'S - Dangerous properties of industrial materials - Tenth Edition

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.

Text of R phrases referred to under heading 3:

R20/22 Harmful by inhalation and if swallowed.
R21/22 Harmful in contact with skin and if swallowed.
R34 Causes burns.
R43 May cause sensitization by skin contact.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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
4. FIRST AID MEASURES
6. ACCIDENTAL RELEASE MEASURES
8. EXPOSURE CONTROLS/PERSONAL PROTECTION
9. PHYSICAL AND CHEMICAL PROPERTIES
11. TOXICOLOGICAL INFORMATION
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13. DISPOSAL CONSIDERATIONS
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