

# MATERIAL SAFETY DATA SHEET

according to EU Directive 93/112/EC

## EPOJET COMP. A & B

Version: 2

Print date: 15.10.04



### 1. DESIGNATION OF PRODUCT AND COMPANY

Trade name: EPOJET comp.A  
Product type and use: Epoxy resin for injection.  
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

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components within the meaning of EEC directive 67/548 and corresponding classification:  
70% - 80% epoxy resin ( number average molecular weight <=700)  
CAS: 25068-38-6

Xi Irritant

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.

25% - 50% [(tolyloxy)methyl]oxirane; cresyl glycidyl ether

N. EEC/67/548: 603-056-00-X CAS: 26447-14-3 EINECS: 247-711-4

Xn Harmful

R38 Irritating to skin.

R40 Possible risks of irreversible effects.

R43 May cause sensitization by skin contact.

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

### 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.

The product may present a risk of carcinogenesis.

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.

### 4. FIRST-AID MEASURES

Contact with skin: Immediately take off all contaminated clothing.  
After contact with skin, wash immediately with plenty of water and 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.  
Do not use eyewash or ointment of any kind before obtaining an examination or advice from an ophthalmologist.

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.

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#### 5. FIRE FIGHTING MEASURES

Recommended extinguishers: Water, CO<sub>2</sub>, Foam, Chemical powders, according to the materials involved in the fire.  
Extinguishers not to be used: None in particular.  
Risks arising from combustion: Avoid inhaling the fumes.  
Protective equipment: Use protection for the airways.

#### 6. MEASURES IN CASE OF ACCIDENTAL RELEASE

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 do so, 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 gloves.  
Eye protection: Safety goggles.  
Protection for skin: Use clothing that provides comprehensive protection to the skin.  
Exposure limit value: None

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: liquid  
Colour: transparent  
Odour: typical  
Flash point: >100 °C  
Solid/gas flammability: ==  
Explosion limits(by volume): ==  
Relative density: 1.15 g/cm<sup>3</sup> (23°C)  
Solubility in water: insoluble  
Lipid solubility: soluble  
Viscosity: 500 mPa.s (23°C)

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#### 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:

Eye: The product can cause a temporary irritation by contact.

Sensitizing Properties: Frequent skin contact may cause skin sensitization.

Carcinogenic Effects: May cause cancer

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.

#### 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:

70% - 80% epoxy resin ( number average molecular weight  $\leq 700$ )

CAS: 25068-38-6

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

25% - 50% [(tolyloxy)methyl]oxirane; cresyl glycidyl ether

N. EEC/67/548: 603-056-00-X CAS: 26447-14-3 EINECS: 247-711-4

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

#### 13. DISPOSAL CONSIDERATIONS

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.

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**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 EEC Directive 88/379:

Symbols: Xn Harmful

R Phrases:

- R40 Possible risks of irreversible effects.
- R36/38 Irritating to eyes and skin.
- R43 May cause sensitization by skin contact.

S Phrases:

- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S28 After contact with skin, wash immediately with plenty of water and soap.
- S60 This material and its container must be disposed of as hazardous waste.
- S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

Special Provisions:

Contains epoxy constituents. See information supplied by the manufacturer.

Contents:

[(tolyloxy)methyl]oxirane; cresyl glycidyl ether  
epoxy resin ( number average molecular weight <=700)

**16. OTHER INFORMATION**

Main bibliographic sources:

- NIOSH - Registry of toxic effects of chemical substances (1983)
- I.N.R.S. - Fiche Toxicologique
- CESIO - Classification and labelling of anionic, nonionic surfactants (1990)
- CCNL - Appendix 1 "TLV for 1989-90"

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.

# MATERIAL SAFETY DATA SHEET

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## EPOJET COMP. A & B

Version: 2

Print date: 15.10.04



### 1. DESIGNATION OF PRODUCT AND COMPANY

Trade name: EPOJET 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

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

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

60% - 70% m-xylylenediamine

CAS: 1477-55-0 EINECS: 216-032-5

C Corrosive

R43 May cause sensitization by skin contact.

R34 Causes burns.

R20/22 Harmful by inhalation and if swallowed.

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

12.5% - 19.99% nonylphenol

CAS: 25154-52-3 EINECS: 246-672-0

C Corrosive

R22 Harmful if swallowed.

R34 Causes burns.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

1% - 2.99% polyethyleneamines

N. EEC/67/548: 612-065-00-8 CAS: 68131-73-7 EINECS: 268-626-9

C Corrosive

R21/22 Harmful in contact with skin and if swallowed.

R34 Causes burns.

R43 May cause sensitization by skin contact.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 3. HAZARDS IDENTIFICATION

The product is harmful following acute exposure to it and poses a serious health threat if inhaled or ingested.

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.

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#### 4. FIRST-AID MEASURES

Contact with skin:	Immediately take off all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. CONSULT A PHYSICIAN IMMEDIATELY.
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. Do not use eyewash or ointment of any kind before obtaining an examination or advice from an ophthalmologist.
Swallowing:	Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY. Administer petrolatum; administer neither milk nor animal or vegetable fats of any kind. Administer water with albumen; do not administer bicarbonate.
Inhalation:	Ventilate the premises. The patient is to be removed immediately from the contaminated premises to rest in a well ventilated area. CALL 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:	Avoid inhaling the fumes.
Protective equipment:	Use protection for the airways.

#### 6. MEASURES IN CASE OF ACCIDENTAL RELEASE

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.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Precautionary measures:	Give adequate ventilation to the premises where the product is stored and/or handled.
Respiratory protection:	Use adequate protective respiratory equipment, when above TLV.
Protection for hands:	Use protective gloves.
Eye protection:	Safety goggles.
Protection for skin:	Use clothing that provides comprehensive protection to the skin.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	liquid
Colour:	transparent
Odour:	ammonia
pH:	11
Boiling point:	>200 °C
Flash point:	>100 °C
Vapour pressure:	<0.01 kPa (23°C)
Relative density:	1.12 g/cm <sup>3</sup> (23°C)
Solubility in water:	partly soluble
Lipid solubility:	soluble
Viscosity:	320 mPa.s (23°C)

## 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

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.

m-xylenylenediamine

LD50 (rat, oral): 980mg/kg (female)

1090 mg/kg (male)

LC50 (rat, inhal.): 2.4 mg/l/4 hours

Corrosive/Irritating Properties:

Skin: Corrosive. The product can cause burns by contact.

Eye: The product can cause damage to eyes by contact

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Sensitizing Properties: Frequent skin contact may cause skin sensitization.  
Cancerogenic 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**

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% nonylphenol

CAS: 25154-52-3 EINECS: 246-672-0

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

1% - 2.99% polyethyleneamines

N. EEC/67/548: 612-065-00-8 CAS: 68131-73-7 EINECS: 268-626-9

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**13. DISPOSAL CONSIDERATIONS**

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.

**14. TRANSPORT INFORMATION**

UN Number:	2735
Rail/Road(RID/ADR):	8,53°C
No dangerous cargo in MAPEI's combined packaging, according to transport regulations by road. LIMITED QUANTITY ADR (marg.2801 a)	
Sea (IMO/IMDG):	p.8109-2, cl.8(III)
Dangerous goods in limited quantities of class 8(III) (IMO 1994, IMDG CODE p.0148)	
MAR/POL 73/78,Annex III:	No
Air (ICAO/IATA):	8(III)

**15. REGULATORY INFORMATION**

Classification and Labelling according to EEC Directive 88/379:

Symbols:

C Corrosive

R Phrases:

R34 Causes burns.

R20/22 Harmful by inhalation and if swallowed.

R43 May cause sensitization by skin contact.



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#### S Phrases:

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

S28 After contact with skin, wash immediately with plenty of water and soap.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

#### Contents:

m-xylylenediamine

nonylphenol

polyethyleneamines

## 16. OTHER INFORMATION

#### Main bibliographic sources:

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

I.N.R.S. - Fiche Toxicologique

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