

## Safety Data Sheet EPORIP comp.B

Safety Data Sheet dated 16/5/2015, version 1

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

1.1. Product identifier

Trade name: EPORIP 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:

==

1.3. Details of the supplier of the safety data sheet

Supplier:

MAPEI U.K. Ltd - Mapei House Steel Park Road

Halesowen - West Midlands B62 8HD

Competent person responsible for the safety data sheet:

sicurezza@mapei.it

1.4. Emergency telephone number

MAPEI U.K. Ltd - phone: +44(0)121 508 6970

fax: +44(0)121 5086 960

www.mapei.co.uk (office hours)

### 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. 1A, May cause an allergic skin reaction.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Symbols:



Danger

Hazard Statements:

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

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#### Precautionary Statements:

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.  
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.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P501 Dispose of contents/container in accordance with applicable regulations.

#### Special Provisions:

None

#### Contents:

2,4,6-tris(dimethylaminomethyl)phenol  
3,6-diazaoctanethylenediamin; triethylenetetramine  
3-aminopropyldimethylamine; N,N-dimethyl-1,3-diaminopropane

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

Restricted to professional users.

#### 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:

>= 50% - < 75% fatty acids, tall-oil, polymers with bisphenol A, diethylenetriamine, epichlorohydrin and tetraethylenepentamine

CAS: 68951-85-9

⚠ 3.2/2 Skin Irrit. 2 H315

⚠ 3.3/2 Eye Irrit. 2 H319

>= 5% - < 10% 3,6-diazaoctanethylenediamin; triethylenetetramine

Index number: 612-059-00-5, CAS: 112-24-3, EC: 203-950-6

⚠ 3.2/1B Skin Corr. 1B H314

⚠ 3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317

4.1/C3 Aquatic Chronic 3 H412

⚠ 3.1/4/Dermal Acute Tox. 4 H312

>= 2.5% - < 4.99% 3-aminopropyldimethylamine; N,N-dimethyl-1,3-diaminopropane

Index number: 612-061-00-6, CAS: 109-55-7, EC: 203-680-9

⚠ 2.6/3 Flam. Liq. 3 H226

⚠ 3.2/1B Skin Corr. 1B H314

⚠ 3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317

⚠ 3.1/4/Oral Acute Tox. 4 H302

>= 2.5% - < 4.99% 2,4,6-tris(dimethylaminomethyl)phenol

REACH No.: 01-2119560597-27-xxxx, CAS: 90-72-2, EC: 202-013-9

⚠ 3.2/1B Skin Corr. 1B H314

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⚠ 3.4.2/1A Skin Sens. 1A H317  
4.1/C3 Aquatic Chronic 3 H412

#### 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.

Do not under any circumstances induce vomiting. **OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.**

A suspension of activated charcoal in water, or petroleum jelly may be administered.

###### In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

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)

#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

Suitable extinguishing media:

None in particular.

Water.

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.

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#### SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures  
Wear personal protection equipment.  
Remove persons to safety.  
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.  
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.  
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.  
Fine dust may form explosive mixture with air. Keep away from open flames, heat and sparks.  
Do not remove shrink film in hazardous locations (because of risk of static charging/discharge)
- 7.2. Conditions for safe storage, including any incompatibilities  
Always keep the containers tightly closed.  
Keep away from food, drink and feed.  
Incompatible materials:  
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  
3,6-diazaoctanethylenediamin; triethylenetetramine - CAS: 112-24-3  
NDS - LTE mg/m<sup>3</sup>: 1 mg/m<sup>3</sup>  
NDSch - LTE mg/m<sup>3</sup>: 3 mg/m<sup>3</sup>  
DNEL Exposure Limit Values  
3,6-diazaoctanethylenediamin; triethylenetetramine - CAS: 112-24-3  
Worker Industry: 5380 mg/m<sup>3</sup> - Consumer: 1600 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Short Term, systemic effects  
Worker Industry: 0.57 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects  
Worker Industry: 1 mg/m<sup>3</sup> - Consumer: 0.29 mg/m<sup>3</sup> - Exposure: Human Inhalation -

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Frequency: Long Term, systemic effects  
 Worker Industry: 0.028 mg/m<sup>3</sup> - Consumer: 0.43 mg/cm<sup>2</sup> - Exposure: Human Dermal -  
 Frequency: Long Term, local effects  
 Consumer: 8 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects  
 Consumer: 20 mg/kg - Exposure: Human Oral - Frequency: Short Term, systemic effects  
 Consumer: 1 mg/cm<sup>2</sup> - Exposure: Human Dermal - Frequency: Short Term, local effects  
 Consumer: 0.43 mg/cm<sup>2</sup> - Exposure: Human Oral - Frequency: Long Term, local effects

#### PNEC Exposure Limit Values

N.A.

#### 8.2. Exposure controls

##### Eye protection:

Safety goggles.

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

##### Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

##### Protection for hands:

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

##### Respiratory protection:

Not needed for normal use.

In case of insufficient ventilation use mask with B type 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

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

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance:	liquid
Colour:	white
Odour:	ammonia
Odour threshold:	N.A.
pH:	10
Melting point / freezing point:	N.A.
Initial boiling point and boiling range:	N.A.
Solid/gas flammability:	N.A.
Upper/lower flammability or explosive limits:	N.A.
Vapour density:	N.A.
Flash point:	>100 °C
Evaporation rate:	N.A.
Vapour pressure:	<0.01 kPa (23°C)
Relative density:	1.02 g/cm <sup>3</sup> (23°C)
Vapour density (air=1):	N.A.
Solubility in water:	partly soluble
Solubility in oil:	soluble
Viscosity:	1500 mPa.s (23°C)

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Auto-ignition temperature:	==	°C
Explosion limits(by volume):	==	
Decomposition temperature:	N.A.	
Partition coefficient (n-octanol/water):		N.A.
Explosive properties:	==	
Oxidizing properties:	N.A.	
9.2. Other information		
Miscibility:		N.A.
Fat Solubility:		N.A.
Conductivity:		N.A.
Substance Groups relevant properties		N.A.

#### 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 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.
- 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
- Toxicological information related to the product:  
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 mixture:  
N.A.
- Toxicological information of the main substances found in the mixture:  
3,6-diazaoctanethylenediamin; triethylenetetramine - CAS: 112-24-3  
a) acute toxicity:  
Test: LD50 - Route: Skin - Species: Rabbit 1465 mg/kg  
Test: LD50 - Route: Oral - Species: Rat 1716 mg/kg  
2,4,6-tris(dimethylaminomethyl)phenol - CAS: 90-72-2  
a) acute toxicity:  
Test: LD50 - Route: Oral - Species: Rat = 2169 mg/kg
- Corrosive/Irritating Properties:  
Skin:  
Corrosive. The product can cause burns by contact.

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#### Eye:

The product can cause damage to eyes by contact

#### Sensitizing Properties:

Frequent contact may cause sensitization.

#### Carcerogenic 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.

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 453/2010/EC 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

Aquatic toxicity: the preparation is not to be considered toxic to the aquatic environment based on components.

LC50>100mg/l - aquatic species (calculated data following 1999/45/EC Directive).

Biodegradability: not readily biodegradable

3,6-diazaoctanethylenediamin; triethylenetetramine - CAS: 112-24-3

#### a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia 31.1 mg/l - Duration h: 48

Endpoint: LC50 - Species: Fish 330 mg/l - Duration h: 96

2,4,6-tris(dimethylaminomethyl)phenol - CAS: 90-72-2

#### a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 175 mg/l - Duration h: 96

Endpoint: EC50 - Species: Algae = 84 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.

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#### 12.5. Results of PBT and vPvB assessment

List of substances dangerous for the environment and corresponding classification:

>= 5% - < 10% 3,6-diazaoctanethylenediamin; triethylenetetramine

CAS: 112-24-3

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

>= 2.5% - < 4.99% 2,4,6-tris(dimethylaminomethyl)phenol

CAS: 90-72-2

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

vPvB Substances: None - PBT Substances: None

#### 12.6. Other adverse effects

None

Not available data on the mixture

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

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,III

ADR-Upper number: NA

Air (ICAO/IATA): 8,III

Sea (IMO/IMDG): 8,III

#### 14.4. Packing group

#### 14.5. Environmental hazards

Marine pollutant: No

#### 14.6. Special precautions for user

#### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

N.A.

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)

Dir. 2006/8/EC

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) n. 453/2010 (Annex I)

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

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



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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:

Restriction 28

Restriction 29

REACH Regulation (1907/2006) – All. XVII: N.A.

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

15.2. Chemical safety assessment

No

## SECTION 16: Other information

Text of phrases referred to under heading 3:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

H312 Harmful in contact with skin.

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

This safety data sheet has been completely updated in compliance to Regulation 453/2010/EU.

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

SAX'S - Dangerous properties of industrial materials

Istituto Superiore di Sanità - Inventario Nazionale Sostanze Chimiche

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

## Safety Data Sheet

### EPORIP comp.B

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 Association" (IATA).
ICAO:	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:	European threshold limit value
VLE:	Threshold Limiting Value.
WGK:	German Water Hazard Class.
TSCA:	United States Toxic Substances Control Act Inventory
DSL:	DSL - Canadian Domestic Substances List