

Safety Data Sheet dated 5/8/2016, version 2

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

1.1. Product identifier

Trade name: EPORIP comp.A

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

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)

- Warning, Skin Irrit. 2, Causes skin irritation.
- Warning, Eye Irrit. 2, Causes serious eye irritation.
- ◆ Warning, Skin Sens. 1, May cause an allergic skin reaction.
- Aquatic Chronic 2, Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Warning Hazard Statements:

H315 Causes skin irritation.

H319 Causes serious eye irritation.



H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements:

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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

P337+P313 If eye irritation persists: Get medical advice/attention.

P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

EUH205 Contains epoxy constituents. May produce an allergic reaction.

Contents:

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

1,6 hexanediol diglycidyl ether: May produce an allergic reaction.

bisphenol F - epoxy resin: 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: >= 25% - < 50% reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)

REACH No.: 01-2119456619-26-xxxx, Index number: 603-074-00-8, CAS: 25068-38-6, EC: 500-033-5

- ◆ 3.3/2 Eye Irrit. 2 H319
- 1 3.2/2 Skin Irrit. 2 H315
- 3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317
- 4.1/C2 Aquatic Chronic 2 H411

>= 10% - < 20% 1,6 hexanediol diglycidyl ether

CAS: 16096-31-4, EC: 240-260-4

- 3.2/2 Skin Irrit. 2 H315
- 3.3/2 Eye Irrit. 2 H319
- 4 3.4.2/1 Skin Sens. 1 H317
- 4.1/C3 Aquatic Chronic 3 H412

>= 5% - < 10% bisphenol F - epoxy resin

REACH No.: 01-2119454392-40-0006, CAS: 9003-36-5, EC: 500-006-8

- 1 3.2/2 Skin Irrit. 2 H315
- ◆ 3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317
- 4.1/C2 Aquatic Chronic 2 H411

>= 0.25% - < 0.49% 2-butoxyethanol; ethylene glycol monobutyl ether

REACH No.: 01-2119475108-36, Index number: 603-014-00-0, CAS: 111-76-2, EC: 203-905-0



- ◆ 3.1/4/Dermal Acute Tox. 4 H312
- 3.1/4/Inhal Acute Tox. 4 H332
- 3.1/4/Oral Acute Tox. 4 H302
- 1.2/2 Skin Irrit. 2 H315
- ◆ 3.3/2 Eye Irrit. 2 H319

>= 0.01% - < 0.016% free crystalline silica (Ø >10 μ)

CAS: 14808-60-7, EC: 238-878-4

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

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.

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 opthalmologist immediately.

Protect uninjured eye.

Wash immediately with water for at least 10 minutes.

In case of Ingestion:

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

A suspension of activated charcoal in water, or petrolium 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

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.

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.

Carbon dioxide (CO2).

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.

Remove all sources of ignition.

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.

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.

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.

Contamined 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:

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

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2

ÉU - LTE mg/m3(8h): 98 mg/m3, 20 ppm - STE mg/m3: 246 mg/m3, 50 ppm - Notes:



Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)

ACGIH - LTE mg/m3(8h): 20 ppm - Notes: A3, BEI - Eye and URT irr

free crystalline silica ($\emptyset > 10 \mu$) - CAS: 14808-60-7

ACGIH - LTE mg/m3(8h): 0.025 mg/m3 - Notes: A2 (R) - Pulm fibrosis, lung cancer DNEL Exposure Limit Values

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) - CAS: 25068-38-6

Worker Industry: 8.3 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects

Worker Industry: 12.25 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, systemic effects

Worker Industry: 8.3 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Worker Industry: 12.25 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Consumer: 3.571 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects

Consumer: 0.75 mg/kg - Exposure: Human Oral - Frequency: Short Term, systemic effects

Consumer: 3.571 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Consumer: 0.75 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

bisphenol F - epoxy resin - CAS: 9003-36-5

Worker Professional: 0.0083 mg/cm2 - Exposure: Human Dermal - Frequency: Short Term, local effects

Worker Professional: 104.15 mg/kg - Consumer: 62.5 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Worker Professional: 29.39 mg/m3 - Consumer: 8.7 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Consumer: 6.25 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2

Worker Industry: 75 mg/kg - Consumer: 38 mg/kg - Exposure: Human Dermal -

Frequency: Long Term, systemic effects

Worker Industry: 98 mg/m3 - Consumer: 49 mg/m3 - Exposure: Human Inhalation -

Frequency: Long Term, systemic effects

Consumer: 3.2 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects PNEC Exposure Limit Values

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) - CAS: 25068-38-6

Target: Fresh Water - Value: 0.006 mg/l Target: Marine water - Value: 0.0006 mg/l

Target: Freshwater sediments - Value: 0.0627 mg/kg Target: Marine water sediments - Value: 0.00627 mg/kg

bisphenol F - epoxy resin - CAS: 9003-36-5

Target: Fresh Water - Value: 0.003 mg/l Target: Marine water - Value: 0.0003 mg/l Target: MAP2 - Value: 0.0254 mg/l

Target: Freshwater sediments - Value: 0.294 mg/kg Target: Marine water sediments - Value: 0.0294 mg/kg

Target: Soil (agricultural) - Value: 0.237 mg/kg

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2 Target: Microorganisms in sewage treatments - Value: 463 mg/l



Target: Freshwater sediments - Value: 34.6 mg/kg Target: Marine water sediments - Value: 3.46 mg/kg Target: Soil (agricultural) - Value: 3.13 mg/kg

Target: MAP1 - Value: 20 mg/kg Target: Fresh Water - Value: 8.8 mg/l Target: Marine water - Value: 0.88 mg/l

Target: MAP2 - Value: 9.1 mg/l

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.

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 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: liquid
Colour: grey
Odour: typical
Odour threshold: N.A.
pH: N.A.
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: $== ^{\circ}$ CEvaporation rate:N.A.

Vapour pressure: <0.01 kPa (23℃) Relative density: 1.6 g/cm³ (23℃)

Vapour density (air=1): N.A.
Solubility in water: insoluble
Solubility in oil: soluble

Viscosity: 20000 mPa.s (23℃)

Auto-ignition temperature: $== \mathbb{C}$ Explosion limits(by volume): ==

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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 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

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:

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) - CAS: 25068-38-6

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 15000 mg/kg - Notes: riferito a prodotto di reazione:bisfenolo-A-epicloridrina;resine epossidiche

Test: LD50 - Route: Skin - Species: Rabbit > 23000 mg/kg - Notes: riferito a prodotto di reazione:bisfenolo-A-epicloridrina;resine epossidiche

i) STOT-repeated exposure:

Test: map1 - Route: Oral - Species: Rat = 50 mg/kg Test: map1 - Route: Skin - Species: Rat = 100 mg/kg

bisphenol F - epoxy resin - CAS: 9003-36-5

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg 2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2

a) acute toxicity:

Test: LD50 - Route: Skin = 6411 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat = 450 Ppm - Duration: 4h

Test: LD50 - Route: Oral - Species: Rat = 1746 mg/kg



b) skin corrosion/irritation:

Test: Skin Irritant : Positive c) serious eye damage/irritation:
Test: Eye Irritant : Positive

free crystalline silica (\varnothing >10 μ) - CAS: 14808-60-7

a) acute toxicity:

Test: LD50 - Route: Oral = 500 mg/kg Test: LD50 - Route: Skin > 2000 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.

Cancerogenic Effects:

No effects are known.

Mutagenic Effects:

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

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) - CAS: 25068-38-6

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 2 mg/l - Duration h: 96 Endpoint: EC50 - Species: Daphnia > 1.8 mg/l - Duration h: 48 Endpoint: LC50 - Species: Algae > 11 mg/l - Duration h: 72 Endpoint: LC50 - Species: Daphnia = 1.3 mg/l - Duration h: 96

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Daphnia = 0.3 mg/l

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2

a) Aquatic acute toxicity:



Endpoint: EC50 - Species: Daphnia = 1550 mg/l - Duration h: 48 Endpoint: EC50 - Species: Algae = 911 mg/l - Duration h: 72 Endpoint: LC50 - Species: Fish = 1474 mg/l - Duration h: 96

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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.

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

Not classified as dangerous in the meaning of transport regulations.

UN Number: 3082

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es)

Rail/Road(RID/ADR): 9, III
ADR-Upper number: NA
Air (ICAO/IATA): 9, III
Sea (IMO/IMDG): 9, III

LIMITED QUANTITY (3.4.6. ADR e 3.4.2. IMDG)

Dangerous goods in limited quantities

N.A.

14.4. Packing group

N.A.

14.5. Environmental hazards

Marine pollutant: No

N.A.

14.6. Special precautions for user

EMS no: F-A,S-F

N.A.

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

SECTION 15: Regulatory information

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

901521/2



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:

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):

N.A.

15.2. Chemical safety assessment

No

SECTION 16: Other information

Text of phrases referred to under heading 3:

H319 Causes serious eye irritation.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

H312 Harmful in contact with skin.

H332 Harmful if inhaled.

H302 Harmful if swallowed.

Paragraphs modified from the previous revision:

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

SECTION 2: Hazards identification

SECTION 3: Composition/information on ingredients

SECTION 4: First aid measures

SECTION 5: Firefighting measures

SECTION 6: Accidental release measures

SECTION 7: Handling and storage

SECTION 8: Exposure controls/personal protection

SECTION 9: Physical and chemical properties

SECTION 11: Toxicological information



SECTION 12: Ecological information SECTION 14: Transport information SECTION 15: Regulatory information

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

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: 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