

## Safety Data Sheet

### TRIBLOCK TMB comp. B - vedi note

Safety Data Sheet dated 13/12/2016, version 3

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

1.1. Product identifier

Trade name: TRIBLOCK TMB comp. B - vedi note

1.2. Relevant identified uses of the substance or mixture and uses advised against  
Hardener for epoxy products.

Uses advised against:

==

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)

- ⚠ Warning, Skin Irrit. 2, Causes skin irritation.
- ⚠ Warning, Eye Irrit. 2, Causes serious eye irritation.
- ⚠ Warning, Skin Sens. 1A, 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.

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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:

None

Contents:

2-propenenitrile, reaction products with 3-amino-1,5,5-trimethylcyclohexanemetha  
m-xylenediamine: 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:

>= 10% - < 20% aliphatic polyamine

EC: polimero

⚠ 4.1/A1 Aquatic Acute 1 H400

⚠ 4.1/C1 Aquatic Chronic 1 H410

>= 2.5% - < 4.99% 2-propenenitrile, reaction products with 3-amino-1,5,5-trimethylcyclohexanemetha

REACH No.: 01-2120094715-47-XXXX, CAS: 90530-15-7, EC: 292-053-3

⚠ 3.2/1B Skin Corr. 1B H314

⚠ 3.3/1 Eye Dam. 1 H318

⚠ 3.4.2/1A Skin Sens. 1A H317

>= 0.49% - < 1% m-xylenediamine

REACH No.: 01-2119480150-50-0000, CAS: 1477-55-0, EC: 216-032-5

⚠ 3.1/4/Inhal Acute Tox. 4 H332

⚠ 3.1/4/Oral Acute Tox. 4 H302

⚠ 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

EUH071

### SECTION 4: First aid measures

4.1. Description of first aid measures

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#### 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 ophthalmologist 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 petroleum jelly may be administered.  
Wash the mouth thoroughly and drink plenty of water. In case of disease consult a physician immediately and present this safety-data sheet.

#### 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 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:

Water.

CO<sub>2</sub> 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

The product does not present a fire hazard

Do not inhale explosion and combustion gases.

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.

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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.

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:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

Store above 5°C.

### 7.3. Specific end use(s)

None in particular

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

m-xylylenediamine - CAS: 1477-55-0

ACGIH - STE mg/m<sup>3</sup>: C 0.1 mg/m<sup>3</sup> - Notes: Skin - Eye, skin, and GI irr

#### DNEL Exposure Limit Values

m-xylylenediamine - CAS: 1477-55-0

Worker Industry: 0.33 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Worker Industry: 1.2 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Industry: 0.2 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, local effects

#### PNEC Exposure Limit Values

2-propanenitrile, reaction products with 3-amino-1,5,5-trimethylcyclohexanemetha - CAS: 90530-15-7

Target: Fresh Water - Value: 0.00992 mg/l

Target: Marine water - Value: 0.00099 mg/l

Target: MAP2 - Value: 0.992 mg/l

Target: Freshwater sediments - Value: 96.97 mg/kg

Target: Marine water sediments - Value: 9.98 mg/kg

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Target: Microorganisms in sewage treatments - Value: 4.65 mg/l  
 Target: Soil (agricultural) - Value: 19.33 mg/kg  
 m-xylylenediamine - CAS: 1477-55-0  
 Target: Fresh Water - Value: 0.094 mg/kg  
 Target: Marine water - Value: 0.0094 mg/l  
 Target: Freshwater sediments - Value: 0.43 mg/kg  
 Target: Marine water sediments - Value: 0.043 mg/kg  
 Target: MAP2 - Value: 0.152 mg/l  
 Target: Soil (agricultural) - Value: 0.045 mg/kg  
 Target: Microorganisms in sewage treatments - Value: 10 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:	opaco
Odour:	typical
Odour threshold:	N.A.
pH:	N.A.
Melting point / freezing point:	0 °C
Initial boiling point and boiling range:	100 °C
Solid/gas flammability:	N.A.
Upper/lower flammability or explosive limits:	N.A.
Vapour density:	N.A.
Flash point:	== °C
Evaporation rate:	N.A.
Vapour pressure:	N.A.
Relative density:	1 g/cm <sup>3</sup> (23°C)
Vapour density (air=1):	N.A.
Solubility in water:	dispersible
Solubility in oil:	partly soluble

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Viscosity: 30 mPa.s (23°C)  
 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 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: No

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:

aliphatic polyamine

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg

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

2-propenenitrile, reaction products with 3-amino-1,5,5-trimethylcyclohexanemetha - CAS: 90530-15-7

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 2600 mg/kg

m-xylylenediamine - CAS: 1477-55-0

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Mouse = 930 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit = 2000 mg/kg

Test: LC50 - Route: Inhalation Mist - Species: Rat = 1.34 mg/l - Duration: 4h

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Corrosive/Irritating Properties:

Skin:

The product can cause a temporary irritation by prolonged contact.

Eye:

The product can cause a temporary irritation by contact.

Carcinogenic 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

Biodegradability: no data available on the preparation.

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

2-propenenitrile, reaction products with 3-amino-1,5,5-trimethylcyclohexanemetha - CAS: 90530-15-7

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Algae = 9.92 mg/l - Duration h: 72

Endpoint: EC50 - Species: Daphnia > 100 mg/l - Duration h: 48

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Algae = 8.11 mg/l - Duration h: 72

m-xylylenediamine - CAS: 1477-55-0

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Algae = 12 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. 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 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,II

ADR-Label: II

Air (ICAO/IATA): 8,II

Sea (IMO/IMDG): 8,II

LIMITED QUANTITY (3.4.6. ADR e 3.4.2. IMDG)

Dangerous goods in limited quantities

##### 14.4. Packing group

##### 14.5. Environmental hazards

Marine pollutant: Yes

##### 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

Restrictions related to the substances contained:

No restriction.

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.



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(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:

H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.  
H317 May cause an allergic skin reaction.  
H332 Harmful if inhaled.  
H302 Harmful if swallowed.  
H412 Harmful to aquatic life with long lasting effects.  
EUH071 Corrosive to the respiratory tract.

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 10: Stability and reactivity  
SECTION 11: Toxicological information  
SECTION 12: Ecological information  
SECTION 14: Transport information  
SECTION 15: Regulatory information  
SECTION 16: Other 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).

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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
N.A.:	Not available