

## Safety Data Sheet

### MAPEFLOOR PU 400 comp. A

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: MAPEFLOOR PU 400 comp. A

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

Recommended use:

Two-component polyurethane elastic membrane

1.3. Details of the supplier of the safety data sheet

Supplier:

LUSOMAPEI S.A. - Business Parque Tejo XXI

Estrada Nacional 1 - Km 19,65, Gelfas

2600-659 Castanheira do Ribatejo

Competent person responsible for the safety data sheet:

sicurezza@mapei.it

1.4. Emergency telephone number

LUSOMAPEI S.A. - phone: +351-263860360

fax: +351-263860369

www.mapei.pt (office hours)

CIAV – 808 250 143

#### SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

- ⚠ Warning, Acute Tox. 4, Harmful if swallowed.
- ⚠ Warning, Skin Sens. 1, May cause an allergic skin reaction.
- ⚠ Warning, Aquatic Chronic 1, Very toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Symbols:



Warning

Hazard Statements:

H302 Harmful if swallowed.

## Safety Data Sheet

### MAPEFLOOR PU 400 comp. A

H317 May cause an allergic skin reaction.  
H410 Very 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.  
P391 Collect spillage.  
P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

None

Contents:

6-methyl-2,4-bis(methylthio)phenylene-1,3-diamine  
diethylmethylbenzenediamine  
fatty acids, C-18, unsatd. trimers, compd. with 9-octadecen-1-amine, (Z): May produce an allergic reaction.

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:

>= 25% - < 50% 6-methyl-2,4-bis(methylthio)phenylene-1,3-diamine  
REACH No.: 01-0000015292-76-xxxx, Index number: 612-113-00-8, CAS: 106264-79-3, EC: 403-240-8  
⚠ 3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317  
⚠ 4.1/C1 Aquatic Chronic 1 H410  
⚠ 3.1/4/Oral Acute Tox. 4 H302

>= 2.5% - < 4.99% diethylmethylbenzenediamine  
REACH No.: 01-2119486805-25-XXXX, Index number: 612-130-00-0, CAS: 68479-98-1, EC: 270-877-4  
⚠ 3.9/2 STOT RE 2 H373  
⚠ 3.3/2 Eye Irrit. 2 H319  
⚠ 4.1/A1 Aquatic Acute 1 H400  
⚠ 4.1/C1 Aquatic Chronic 1 H410  
⚠ 3.1/4/Oral Acute Tox. 4 H302  
⚠ 3.1/4/Dermal Acute Tox. 4 H312

>= 0.1% - < 0.25% fatty acids, C-18, unsatd. trimers, compd. with 9-octadecen-1-amine, (Z)  
REACH No.: 01-2119971821-33, CAS: 147900-93-4, EC: 604-612-4  
⚠ 3.1/4/Oral Acute Tox. 4 H302  
⚠ 3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317  
⚠ 3.9/2 STOT RE 2 H373  
⚠ 4.1/C2 Aquatic Chronic 2 H411

## Safety Data Sheet

### MAPEFLOOR PU 400 comp. A

>= 0.1% - < 0.25% Solvent naphtha (petroleum), light arom. (\*)  
Index number: 649-356-00-4, CAS: 64742-95-6, EC: 265-199-0  
⚠ 2.6/3 Flam. Liq. 3 H226  
⚠ 3.8/3 STOT SE 3 H335  
⚠ 3.10/1 Asp. Tox. 1 H304  
⚠ 3.8/3 STOT SE 3 H336  
⚠ 4.1/C2 Aquatic Chronic 2 H411  
EUH066

#### 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:

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

Wash immediately with water for at least 10 minutes.

In case of Ingestion:

Give nothing to eat or drink.

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 harmful following acute exposure to it and poses a serious health threat if ingested.

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

This product is a threat to the environment; it is highly toxic for aquatic organisms following acute exposure.

##### 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

## Safety Data Sheet

### MAPEFLOOR PU 400 comp. A

- 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 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.  
Store above 5°C.
- 7.3. Specific end use(s)  
None in particular

#### SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters  
Solvent naphtha (petroleum), light arom. (\*) - CAS: 64742-95-6  
EU - LTE mg/m<sup>3</sup>: 100 mg/m<sup>3</sup>, 19 ppm  
DNEL Exposure Limit Values

## Safety Data Sheet

### MAPEFLOOR PU 400 comp. A

N.A.

PNEC Exposure Limit Values

diethylmethylbenzenediamine - CAS: 68479-98-1

Target: Fresh Water - Value: 500 mg/l

Target: Marine water - Value: 50 mg/l

8.2. Exposure controls

Eye protection:

Safety goggles.

Not needed for normal use. Anyway, operate according good working practices.

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:	paste	
Colour:	white	
Odour:	typical	
Odour threshold:	N.A.	
pH:	N.A.	
Melting point / freezing point:	N.A.	
Initial boiling point and boiling range:	==	°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:	1,9 g/cm <sup>3</sup> (23°C)	
Vapour density (air=1):	N.A.	
Solubility in water:	insoluble	
Solubility in oil:	soluble	
Viscosity:	35000 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:	==	

## Safety Data Sheet

### MAPEFLOOR PU 400 comp. A

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: No
- Contact: No
- 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:
- diethylmethylbenzenediamine - CAS: 68479-98-1
- a) acute toxicity:  
Test: LD50 - Route: Oral - Species: Rat = 738 mg/kg  
Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg  
Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg - Notes: 21 d
- Solvent naphtha (petroleum), light arom. (\*) - CAS: 64742-95-6
- a) acute toxicity:  
Test: LC50 - Route: Inhalation - Species: Rat > 10.2 mg/l - Duration: 4h
- bis(2-propylheptyl) phthalate  
- CAS: 53306-54-0  
LD50 rat (oral): > 5000 mg/kg  
LC50 rat (inhalation): > 20,5 mg/kg  
LD50 rabbit (dermal): > 2000 mg/kg
- Corrosive/Irritating Properties:  
Eye:

## Safety Data Sheet

### MAPEFLOOR PU 400 comp. A

The product can cause a temporary irritation 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

Biodegradability: not readily biodegradable

Biodegradability: no data available on the preparation.

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

diethylmethylbenzenediamine - CAS: 68479-98-1

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 104 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia = 5.8 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae = 104 mg/l - Duration h: 72

Endpoint: LC50 - Species: Daphnia = 0.5 mg/l - Duration h: 48

Solvent naphtha (petroleum), light arom. (\*) - CAS: 64742-95-6

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 9.22 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.

## Safety Data Sheet

### MAPEFLOOR PU 400 comp. A

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

List of substances dangerous for the environment and corresponding classification:

>= 25% - < 50% 6-methyl-2,4-bis(methylthio)phenylene-1,3-diamine

CAS: 106264-79-3

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

>= 2.5% - < 4.99% diethylmethylbenzenediamine

CAS: 68479-98-1

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

>= 0.25% - < 0.49% Solvent naphtha (petroleum), light arom. (\*)

CAS: 64742-95-6

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

>= 0.1% - < 0.25% fatty acids, C-18, unsatd. trimers, compd. with 9-octadecen-1-amine, (Z)

CAS: 147900-93-4

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

>= 0.1% - < 0.25% Solvent naphtha (petroleum), light arom. (\*)

CAS: 64742-95-6

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

vPvB Substances: None - PBT Substances: None

#### 12.6. Other adverse effects

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.

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 01 12

Disposal of not hardened product (EC waste code) : 08 01 11

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: 3082

#### 14.2. UN proper shipping name

N.A.

#### 14.3. Transport hazard class(es)

Rail/Road(RID/ADR): 9,III

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.



## Safety Data Sheet

### MAPEFLOOR PU 400 comp. A

- 14.5. Environmental hazards  
 Marine pollutant: No  
 N.A.
- 14.6. Special precautions for user  
 N.A.
- 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)  
 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 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:  
 H317 May cause an allergic skin reaction.

## Safety Data Sheet

### MAPEFLOOR PU 400 comp. A

H410 Very toxic to aquatic life with long lasting effects.  
H302 Harmful if swallowed.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H319 Causes serious eye irritation.  
H400 Very toxic to aquatic life.  
H312 Harmful in contact with skin.  
H411 Toxic to aquatic life with long lasting effects.  
H226 Flammable liquid and vapour.  
H335 May cause respiratory irritation.  
H304 May be fatal if swallowed and enters airways.  
H336 May cause drowsiness or dizziness.  
EUH066 Repeated exposure may cause skin dryness or cracking.

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

NP: The substance is not classified "carcinogenic" because it contains less than 0,1% by weight of benzene.

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 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.

## Safety Data Sheet

### MAPEFLOOR PU 400 comp. A

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