

Safety Data Sheet MAPEFLEX MS 45

Safety Data Sheet dated 26/5/2017, version 5

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

1.1. Product identifier

Trade name: MAPEFLEX MS 45

1.2. Relevant identified uses of the substance or mixture and uses advised against
Sillilated based polyether adhesive

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)

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

Adverse physicochemical, human health and environmental effects:
No other hazards

2.2. Label elements

Hazard pictograms:

None

Hazard Statements:

None

Precautionary Statements:

None

Special Provisions:

EUH210 Safety data sheet available on request.

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Safety Data Sheet

MAPEFLEX MS 45

Other Hazards:
No other hazards
Further hazards:
Methanol is released by hydrolysis during application.

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:
>= 2.5% - < 4.99% vinyltrimethoxysilane
REACH No.: 01-2119513215-52-xxxx, CAS: 2768-02-7, EC: 220-449-8
⚠ 2.6/3 Flam. Liq. 3 H226
⚠ 3.1/4/Inhal Acute Tox. 4 H332

>= 0.01% - < 0.05% free crystalline silica ($\varnothing >10 \mu$)
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:

Wash with plenty of water and soap.

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:

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

No specific hazards are encountered under normal product use.

4.3. Indication of any immediate medical attention and special treatment needed

Treatment:

(see paragraph 4.1)

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

CO₂ 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

Do not inhale explosion and combustion gases.

Safety Data Sheet

MAPEFLEX MS 45

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 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

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.

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

free crystalline silica ($\text{Ø} > 10 \mu$) - CAS: 14808-60-7

ACGIH - TWA(8h): 0.025 mg/m³ - Notes: (R), A2 - Pulm fibrosis, lung cancer

DNEL Exposure Limit Values

vinyltrimethoxysilane - CAS: 2768-02-7

Worker Industry: 0.2 mg/kg - Consumer: 0.1 mg/kg - Exposure: Human Dermal -

Frequency: Short Term, systemic effects

Worker Industry: 2.6 mg/m³ - Consumer: 0.7 mg/m³ - Exposure: Human Inhalation -

Frequency: Long Term, systemic effects

Safety Data Sheet MAPEFLEX MS 45

Worker Industry: 0.69 mg/kg - Consumer: 0.1 mg/kg - Exposure: Human Dermal -
Frequency: Long Term, systemic effects

Worker Industry: 2.6 mg/m³ - Consumer: 0.7 mg/m³ - Exposure: Human Inhalation -
Frequency: Short Term, systemic effects

Consumer: 0.1 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

vinyltrimethoxysilane - CAS: 2768-02-7

Target: Fresh Water - Value: 0.36 mg/l

Target: Marine water - Value: 0.036 mg/l

Target: MAP2 - Value: 2.4 mg/l

Target: Freshwater sediments - Value: 0.29 mg/kg

Target: Soil (agricultural) - Value: 0.048 mg/kg

Target: Microorganisms in sewage treatments - Value: 6.6 mg/l

8.2. Exposure controls

Eye protection:

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

Protection for skin:

No special precaution must be adopted for normal use.

Not needed for normal use.

Respiratory protection:

Not needed for normal use.

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:	paste	
Colour:	various	
Odour:	typical	
Odour threshold:	N.A.	
pH:	N.A.	
Melting point / freezing point:	== °C	
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:	>100 °C	
Evaporation rate:	N.A.	
Vapour pressure:	N.A.	
Relative density:	1,35-1,45 g/cm ³ (23°C)	
Vapour density (air=1):	N.A.	
Solubility in water:	insoluble	
Solubility in oil:	partly soluble	
Viscosity:	800000-1200000 mPa.s (23°C)	

Safety Data Sheet

MAPEFLEX MS 45

Auto-ignition temperature:	N.A.
Explosion limits(by volume):	N.A.
Decomposition temperature:	N.A.
Partition coefficient (n-octanol/water):	N.A.
Explosive properties:	N.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
None
- 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 product:
N.A.

Toxicological information of the main substances found in the product:

vinyltrimethoxysilane - CAS: 2768-02-7

a) acute toxicity:

- Test: LD50 - Route: Oral - Species: Rat = 7178 mg/kg
- Test: LD50 - Route: Skin - Species: Rabbit = 3200 mg/kg
- Test: LD50 - Route: Inhalation - Species: Rat = 16.8 mg/l - Duration: 4h

e) germ cell mutagenicity:

- Test: map1 - Route: Inhalation Vapour - Species: Rat = 1.7 mg/l

g) reproductive toxicity:

- Test: map1 - Route: Oral - Species: Rat = 1000 mg/kg - Notes: 28 d

i) STOT-repeated exposure:

- Test: map2 - Route: Inhalation Vapour - Species: Rat = 0.058 mg/l
- Test: map2 - Route: Oral - Species: Rat = 62.5 mg/kg

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

a) acute toxicity:

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

Safety Data Sheet

MAPEFLEX MS 45

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

Nevertheless methanol released during the use of the product can cause irritation of the mucous membrane, headache and serious effects on the central nervous system.

It's therefore necessary to limit the exposure to methanol at high concentrations in the job site, for example using it only in well-ventilated areas.

Corrosive/Irritating Properties:

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.

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

vinyltrimethoxysilane - CAS: 2768-02-7

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 191 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia = 169 mg/l - Duration h: 48

Endpoint: NOEC - Species: Daphnia = 28 mg/l - Notes: 21 d

Endpoint: NOEC - Species: Algae = 25 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

Safety Data Sheet MAPEFLEX MS 45

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. 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: =

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es)

Rail/Road(RID/ADR): no dangerous good

ADR-Upper number: NA

Air (ICAO/IATA): no dangerous good

Sea (IMO/IMDG): no dangerous good

N.A.

14.4. Packing group

N.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 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 40

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)

Safety Data Sheet

MAPEFLEX MS 45

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):

Seveso III category according to Annex 1, part 1

None

15.2. Chemical safety assessment

No

SECTION 16: Other information

Text of phrases referred to under heading 3:

H226 Flammable liquid and vapour.

H332 Harmful if inhaled.

Paragraphs modified from the previous revision:

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).

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.

Safety Data Sheet MAPEFLEX MS 45

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