

## Safety Data Sheet

### MAPEFLOOR FINISH 52 W parte B

Safety Data Sheet dated 17/1/2018, version 2

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

1.1. Product identifier

Trade name: MAPEFLOOR FINISH 52 W parte B

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

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, Acute Tox. 4, Harmful if inhaled.
- ⚠ Warning, Skin Sens. 1, May cause an allergic skin reaction.
- ⚠ Warning, STOT SE 3, May cause respiratory irritation.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Warning

Hazard Statements:

H332 Harmful if inhaled.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

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#### Precautionary Statements:

- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P302+P352 IF ON SKIN: Wash with plenty of water.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

#### Special Provisions:

EUH204 Contains isocyanates. May produce an allergic reaction.

#### Contains

- HDI oligomers, uretdione
- Hexamethylene diisocyanate, oligomers
- hydrophilic aliphatic polyisocyanate

#### 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:

>= 50% - < 75% HDI oligomers, iminooxadiazindione

REACH No.: 01-2119488934-20-XXXX, CAS: 28182-81-2, EC: 931-297-3

⚠ 3.1/4/Inhal Acute Tox. 4 H332

⚠ 3.4.2/1 Skin Sens. 1 H317

⚠ 3.8/3 STOT SE 3 H335

>= 10% - < 20% hydrophilic aliphatic polyisocyanate

CAS: 666723-27-9

⚠ 3.1/3/Inhal Acute Tox. 3 H331

⚠ 3.8/3 STOT SE 3 H335

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

4.1/C3 Aquatic Chronic 3 H412

>= 2.5% - < 4.99% HDI oligomers, uretdione

REACH No.: 01-2119488177-26-0000, EC: 931-288-4

⚠ 3.1/3/Inhal Acute Tox. 3 H331

⚠ 3.8/3 STOT SE 3 H335

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### In case of skin contact:

Immediately take off all contaminated clothing.

Remove contaminated clothing immediately and dispose off safely.

#### In case of eyes contact:

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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 induce vomiting.

In case of Inhalation:

If breathing is irregular or stopped, administer artificial respiration.

In case of inhalation, consult a doctor immediately and show him packing or label.

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 inhaled.

If inhaled, the product causes irritation in the airways.

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

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.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

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

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- 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.  
Use localized ventilation system.  
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. (see point 10.5)  
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.
- 7.3. Specific end use(s)  
None in particular

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

- 8.1. Control parameters  
No occupational exposure limit available
- DNEL Exposure Limit Values  
HDI oligomers, iminooxadiazindione - CAS: 28182-81-2  
Worker Industry: 0.5 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, local effects  
Worker Industry: 1 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Short Term, local effects  
HDI oligomers, uretdione  
Worker Industry: 0.7 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Short Term, local effects  
Worker Industry: 0.35 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, local effects
- PNEC Exposure Limit Values  
HDI oligomers, iminooxadiazindione - CAS: 28182-81-2  
Target: Fresh Water - Value: 0.199 mg/l  
Target: Freshwater sediments - Value: 44551 mg/kg  
Target: Marine water - Value: 0.0199 mg/l  
Target: Marine water sediments - Value: 4455 mg/kg  
Target: Microorganisms in sewage treatments - Value: 100 mg/l  
Target: Soil (agricultural) - Value: 8884 mg/kg  
HDI oligomers, uretdione  
Target: Fresh Water - Value: 0.05 mg/l - Type of hazard: >  
Target: Marine water - Value: 0.005 mg/l - Type of hazard: >  
Target: Freshwater sediments - Value: 1.33 mg/kg - Type of hazard: >  
Target: Marine water sediments - Value: 0.133 mg/kg - Type of hazard: >  
Target: Soil (agricultural) - Value: 0.066 mg/kg - Type of hazard: >  
Target: Microorganisms in sewage treatments - Value: 55.6 mg/l

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#### 8.2. Exposure controls

##### Eye protection:

Safety goggles.

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

##### Protection for skin:

Suitable materials for safety gloves; EN 374:

Polychloroprene - CR: thickness  $\geq 0,5\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Nitrile rubber - NBR: thickness  $\geq 0,35\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Butyl rubber - IIR: thickness  $\geq 0,5\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Fluorinated rubber - FKM: thickness  $\geq 0,4\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

##### Respiratory protection:

Use respiratory protection where ventilation is insufficient or exposure is prolonged.

Use adequate protective respiratory equipment.

A dust mask (P2) should be worn if above exposure limits (EN 149)

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: yellow

Odour: odourless

Odour threshold: N.A.

pH: N.A.

Melting point / freezing point: N.A.

Initial boiling point and boiling range: 122 °C

Solid/gas flammability: N.A.

Upper/lower flammability or explosive limits: N.A.

Vapour density: Not determined

Flash point: 185 °C

Evaporation rate: Not determined

Vapour pressure: Not determined

Relative density: 1,151 g/cm<sup>3</sup> (23°C)

Vapour density (air=1): Not determined

Solubility in water: insoluble

Solubility in oil: N.A.

Viscosity: 800 mPa.s (23°C)

Auto-ignition temperature: N.A. - No explosive or spontaneous ignition in contact with air at room temperature

Explosion limits(by volume): N.A.

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Decomposition temperature: N.A.  
 Partition coefficient (n-octanol/water): N.A. - This product is a mixture  
 Explosive properties: N.A. - No components with explosive properties  
 Oxidizing properties: N.A. - No component with oxidizing properties

9.2. Other information  
 No additional information

#### 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, alloys in powder or vapours) and powerful reducing agents.  
 It may generate toxic gases on contact with oxidising mineral acids, and powerful oxidising agents.  
 It may catch fire on contact with oxidising mineral acids, 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.  
 It releases carbon dioxide in contact with water  
 It polymerises on heating

#### SECTION 11: Toxicological information

- 11.1. Information on toxicological effects  
 Route(s) of entry:  
 Ingestion: Yes  
 Inhalation: No  
 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:  
 HDI oligomers, iminooxadiazindione - CAS: 28182-81-2
- a) acute toxicity:  
 Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg  
 Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg  
 Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg  
 Test: LC50 - Route: Inhalation Mist - Species: Rat = 0.390 mg/l - Duration: 4h
- b) skin corrosion/irritation:  
 Test: Respiratory Tract Irritant - Species: Rabbit : Positive
- d) respiratory or skin sensitisation:  
 Test: Skin Sensitization - Route: Skin - Species: Mouse : Positive
- hydrophilic aliphatic polyisocyanate - CAS: 666723-27-9
- a) acute toxicity:  
 Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg  
 Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg  
 Test: LC50 - Route: Inhalation - Species: Rat = 0.158 mg/l - Duration: 4h

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HDI oligomers, uretdione

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5665 mg/kg - Source: OECD TG 401

Test: LC50 - Route: Inhalation Dust - Species: Rat = 0.158 mg/l - Duration: 4h - Source: OECD TG 403

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

Route: Inhalation Mist = 0.5 mg/l

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.

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

HDI oligomers, iminooxadiazindione - CAS: 28182-81-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 100 mg/l - Duration h: 96

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

Endpoint: EC50 - Species: Algae = 199 mg/l - Duration h: 72

c) Bacteria toxicity:

Endpoint: EC50 - Species: 19126 > 10000 mg/l - Duration h: 3

hydrophilic aliphatic polyisocyanate - CAS: 666723-27-9

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 35.2 mg/l - Duration h: 96

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

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

HDI oligomers, uretdione

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 100 mg/l - Duration h: 96

Endpoint: EC50 - Species: Algae = 75 mg/l - Duration h: 72

c) Bacteria toxicity:

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Endpoint: EC50 - Species: 19126 = 5.560 mg/l

- 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.  
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  
Not classified as dangerous in the meaning of transport regulations.
- 14.2. UN proper shipping name  
N.A.
- 14.3. Transport hazard class(es)  
ADR-Upper number: NA  
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:

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Restrictions related to the product:

Restriction 3

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) : max 0,1 (A+B) 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:

H332 Harmful if inhaled.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H331 Toxic if inhaled.

H412 Harmful to aquatic life with long lasting effects.

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 13: Disposal considerations

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.

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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
N.A.:	Not available