

SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2020/878

MEGAPLAST PU 25S curative

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

1.1. Product identifier

Product name : MEGAPLAST PU 25S curative
Registration number REACH : Not applicable (mixture)
Product type REACH : Mixture

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

1.2.1 Relevant identified uses

Adhesive: component
Hardener

1.2.2 Uses advised against

No uses advised against known

1.3. Details of the supplier of the safety data sheet

Supplier of the safety data sheet

Novatio*
Industrielaan 5B
B-2250 Olen
☎ +32 14 25 76 40
✉ +32 14 22 02 66
info@novatio.be
*NOVATIO is a registered trademark of Novatech International N.V.

Manufacturer of the product

Novatech International N.V.
Industrielaan 5B
B-2250 Olen
☎ +32 14 85 97 37
✉ +32 14 85 97 38
info@novatech.be

1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch) :
+32 14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

| Class | Category | Hazard statements |
|-----------------|------------|--|
| Aquatic Chronic | category 3 | H412: Harmful to aquatic life with long lasting effects. |

2.2. Label elements

Hazard pictograms

No pictogram is used

Signal word No signal word

H-statements

H412 Harmful to aquatic life with long lasting effects.

P-statements

P273 Avoid release to the environment.

Supplemental information

EUH208 Contains: piperazine; dibutylbis(dodecylthio)stannane. May produce an allergic reaction.

2.3. Other hazards

No other hazards known

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name REACH Registration No | CAS No EC No | Conc. (C) | Classification according to CLP | Note | Remark | M-factors and ATE |
|---|-------------------------|------------------|---|---------------|-------------|--|
| Talc (Mg ₃ H ₂ (SiO ₃) ₄) | 14807-96-6 238-877-9 | 15% ≤C<25% | | (2) | Constituent | |
| zeolites | 1318-02-1 215-283-8 | 2,5%≤C<5% | | (2) | Constituent | |
| piperazine 01-2119480384-35 | 110-85-0 203-808-3 | 0.5%≤C<1% | Flam. Sol. 1; H228 Repr. 2; H361fd Resp. Sens. 1; H334 Skin Sens. 1; H317 Skin Corr. 1B; H314 Eye Dam. 1; H318 | (1)(2)(6)(10) | Constituent | |
| dibutylbis(dodecylthio)stannane 01-2119841260-50 | 1185-81-5 214-688-7 | 0.25% ≤C<0.3% | Muta. 2; H341 Repr. 1B; H360FD Skin Sens. 1; H317 STOT RE 1; H372 Acute Tox. 4; H312 Skin Irrit. 2; H315 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 | (1)(2)(10) | Constituent | M: 1 (Acute, BIG) M: 1 (Chronic, ECHA (registration dossier)) |

(1) For H- and EUH-statements in full: see section 16

(2) Substance with a Community workplace exposure limit

(6) Enumerated in Annex VI of Regulation (EC) No. 1272/2008 but the classification has been adapted after evaluation of available test data

(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

Observe (own) safety. If possible, approach victim and check vital functions. In case of injury and/or intoxication, call the European emergency number 112. Treat symptoms starting with most life-threatening injuries and disorders. Keep victim under observation, possibility of delayed symptoms.

After inhalation:

Remove victim into fresh air. In case of respiratory problems, consult a doctor/medical service.

After skin contact:

If possible, wipe up/dry remove chemical. Then rinse/shower immediately with (lukewarm) water. If irritation persists, consult a doctor/medical service.

After eye contact:

Rinse immediately with (lukewarm) water. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult a doctor/medical service.

After ingestion:

Rinse mouth with water. If you feel unwell, consult a doctor/medical service. Do not wait for symptoms to occur to consult Poison Center.

4.2. Most important symptoms and effects, both acute and delayed

4.2.1 Acute symptoms

After inhalation:

No effects known.

After skin contact:

No effects known.

After eye contact:

No effects known.

After ingestion:

No effects known.

4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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5.1.1 Suitable extinguishing media:

Small fire: Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting class B foam extinguisher, Quick-acting CO2 extinguisher.
Major fire: Class B foam (not alcohol-resistant).

5.1.2 Unsuitable extinguishing media:

Small fire: Water (quick-acting extinguisher, reel); risk of puddle expansion.
Major fire: Water; risk of puddle expansion.

5.2. Special hazards arising from the substance or mixture

Upon combustion: formation of CO, CO2 and small quantities of nitrous vapours and formation of metal oxides

5.3. Advice for firefighters

5.3.1 Instructions:

Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.

5.3.2 Special protective equipment for fire-fighters:

Gloves (EN 374). Protective clothing (EN 14605 or EN 13034). Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No naked flames.

6.1.1 Protective equipment for non-emergency personnel

See section 8.2

6.1.2 Protective equipment for emergency responders

Gloves (EN 374). Protective clothing (EN 14605 or EN 13034).

Suitable protective clothing

See section 8.2

6.2. Environmental precautions

Contain released product. Dam up the liquid spill.

6.3. Methods and material for containment and cleaning up

Take up liquid spill into inert absorbent material. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers.
Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

See section 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1. Precautions for safe handling

Keep away from naked flames/heat. Observe strict hygiene. Keep container tightly closed. Do not discharge the waste into the drain.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Store in a cool area. Store in a dry area. Keep container in a well-ventilated place. Meet the legal requirements.

7.2.2 Keep away from:

Heat sources, oxidizing agents, (strong) acids, (strong) bases, isocyanates.

7.2.3 Suitable packaging material:

No data available

7.2.4 Non suitable packaging material:

No data available

7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

EU

| | | |
|------------|---|-----------------------|
| Piperazine | Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value) | 0.1 mg/m ³ |
| | Short time value (Indicative occupational exposure limit value) | 0.3 mg/m ³ |

Belgium

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| | | |
|--|--|-----------------------|
| Etain (composés organiques de) (en Sn) | Time-weighted average exposure limit 8 h | 0.1 mg/m ³ |
| | Short time value | 0.2 mg/m ³ |
| Particules non classifiées autrement (fraction alvéolaire) | Time-weighted average exposure limit 8 h | 3 mg/m ³ |
| Particules non classifiées autrement (fraction inhalable) | Time-weighted average exposure limit 8 h | 10 mg/m ³ |
| Pipérazine et sels (vapeur et aérosol) (en pipérazine) | Time-weighted average exposure limit 8 h | 0.1 mg/m ³ |
| | Short time value | 0.3 mg/m ³ |
| Talc (sans fibre d'amiante) | Time-weighted average exposure limit 8 h | 2 mg/m ³ |

The Netherlands

| | | |
|-------------------|---|------------------------|
| Piperazine | Time-weighted average exposure limit 8 h (Public occupational exposure limit value) | 0.028 ppm |
| | Time-weighted average exposure limit 8 h (Public occupational exposure limit value) | 0.1 mg/m ³ |
| | Short time value (Public occupational exposure limit value) | 0.084 ppm |
| | Short time value (Public occupational exposure limit value) | 0.3 mg/m ³ |
| Talk (respirabel) | Time-weighted average exposure limit 8 h (Public occupational exposure limit value) | 0.016 ppm |
| | Time-weighted average exposure limit 8 h (Public occupational exposure limit value) | 0.25 mg/m ³ |

France

| | | |
|--|--|-----------------------|
| Etain (composés organiques d'), en Sn | Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative) | 0.1 mg/m ³ |
| | Short time value (VL: Valeur non réglementaire indicative) | 0.2 mg/m ³ |
| Pipérazine (poussières et vapeurs) | Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative) | 0.1 mg/m ³ |
| | Short time value (VRI: Valeur réglementaire indicative) | 0.3 mg/m ³ |
| Poussières réputées sans effet spécifique, fraction alvéolaire | Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante) | 5 mg/m ³ |
| Poussières réputées sans effet spécifique | Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante) | 10 mg/m ³ |

Germany

| | | |
|--|---|-------------------------|
| Allgemeiner Staubgrenzwert: Alveolengängige Fraktion | Time-weighted average exposure limit 8 h (TRGS 900) | 1.25 mg/m ³ |
| Piperazin | Time-weighted average exposure limit 8 h (TRGS 900) | 0.1 mg/m ³ |
| Zinnverbindungen, organische - n-Butylzinnverbindungen: Di-n-butylzinnverbindungen | Time-weighted average exposure limit 8 h (TRGS 900) | 0.0018 ppm |
| | Time-weighted average exposure limit 8 h (TRGS 900) | 0.009 mg/m ³ |

Austria

| | | |
|---------------------------|-------------------------------|-----------------------|
| Piperazin und seine Salze | Tagesmittelwert (MAK) | 0.1 mg/m ³ |
| | Kurzzeitwert 15(Miw) 4x (MAK) | 0.3 mg/m ³ |
| Talk (asbestfaserfrei) | Tagesmittelwert (MAK) | 2 mg/m ³ |

UK

| | | |
|---|---|-----------------------|
| Inhalable dust | Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005)) | 10 mg/m ³ |
| Piperazine | Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005)) | 0.1 mg/m ³ |
| | Short time value (Workplace exposure limit (EH40/2005)) | 0.3 mg/m ³ |
| Respirable dust | Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005)) | 4 mg/m ³ |
| Talc, respirable dust | Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005)) | 1 mg/m ³ |
| Tin compounds, organic, except Cyhexatin (ISO), (as Sn) | Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005)) | 0.1 mg/m ³ |
| | Short time value (Workplace exposure limit (EH40/2005)) | 0.2 mg/m ³ |

USA (TLV-ACGIH)

| | | |
|--|--|--------------------------------|
| Particulates (insoluble or poorly soluble) not otherwise specified | Time-weighted average exposure limit 8 h (TLV - Adopted Value) | 3 mg/m ³ (R) |
| Piperazine and salts, as piperazine | Time-weighted average exposure limit 8 h (TLV - Adopted Value) | 0.03 ppm (IFV) |
| Talc: Containing asbestos fibers | Time-weighted average exposure limit 8 h (TLV - Adopted Value) | 0.1 fibers/cm ³ (F) |
| Talc: Containing no asbestos fibers | Time-weighted average exposure limit 8 h (TLV - Adopted Value) | 2 mg/m ³ (R,E) |
| Tin, organic compounds, as Sn | Time-weighted average exposure limit 8 h (TLV - Adopted Value) | 0.1 mg/m ³ |
| | Short time value (TLV - Adopted Value) | 0.2 mg/m ³ |

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(R): Respirable fraction

(IFV): Inhalable fraction and vapor

(F): Respirable fibers: length > 5 µm; aspect ratio ≥ 3:1, as determined by the membrane filter method at 400-450X magnification (4-mm objective), using phase-contrast illumination

R,E: Respirable fraction. The value is for particulate matter containing no asbestos and < 1% crystalline silica

b) National biological limit values

If limit values are applicable and available these will be listed below.

8.1.2 Sampling methods

| Product name | Test | Number |
|--|-------|-----------|
| Dust, Respirable Nuisance (Particulates) | NIOSH | 0600 |
| Dust, Respirable | ASTM | D 4532-92 |
| Dust, Total Nuisance (Particulates) | NIOSH | 0500 |
| total aerosol mass | NIOSH | 0501 |

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

8.1.4 Threshold values

DNEL/DMEL - Workers

Talc (Mg₃H₂(SiO₃)₄)

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|--------------------------|---------------------------------------|-------------------------|--------|
| DNEL | Long-term systemic effects inhalation | 2.16 mg/m ³ | |
| | Acute systemic effects inhalation | 2.16 mg/m ³ | |
| | Long-term local effects inhalation | 3.6 mg/m ³ | |
| | Acute local effects inhalation | 3.6 mg/m ³ | |
| | Long-term systemic effects dermal | 43.2 mg/kg bw/day | |
| | Long-term local effects dermal | 4.54 mg/cm ² | |

zeolites

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|--------------------------|------------------------------------|-----------------------|--------|
| DNEL | Long-term local effects inhalation | 3 mg/m ³ | |
| | Long-term systemic effects dermal | 2.5 mg/m ³ | |

piperazine

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|--------------------------|---------------------------------------|-----------------------|--------|
| DNEL | Long-term systemic effects inhalation | 0.1 mg/m ³ | |
| | Acute systemic effects inhalation | 0.3 mg/m ³ | |
| | Long-term local effects inhalation | 0.1 mg/m ³ | |
| | Acute local effects inhalation | 0.3 mg/m ³ | |

DNEL/DMEL - General population

Talc (Mg₃H₂(SiO₃)₄)

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|--------------------------|---------------------------------------|------------------------|--------|
| DNEL | Long-term systemic effects inhalation | 1.08 mg/m ³ | |
| | Acute systemic effects inhalation | 1.08 mg/m ³ | |
| | Long-term local effects inhalation | 1.8 mg/m ³ | |
| | Acute local effects inhalation | 1.8 mg/m ³ | |
| | Long-term systemic effects dermal | 21.6 mg/kg bw/day | |
| | Long-term local effects dermal | 2.27 mg/kg bw/day | |
| | Long-term systemic effects oral | 160 mg/kg bw/day | |
| | Acute systemic effects oral | 160 mg/kg bw/day | |

zeolites

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|--------------------------|------------------------------------|-------------------------|--------|
| DNEL | Long-term local effects inhalation | 0.003 mg/m ³ | |
| | Long-term systemic effects dermal | 1.25 mg/kg bw/day | |
| | Long-term systemic effects oral | 1.25 mg/kg bw/day | |

piperazine

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|--------------------------|---------------------------------|----------------|--------|
| DNEL | Long-term systemic effects oral | 1 mg/kg bw/day | |

PNEC

Talc (Mg₃H₂(SiO₃)₄)

| Compartment | Value | Remark |
|--------------------------------------|-------------------------|--------|
| Fresh water | 597.97 mg/l | |
| Fresh water (intermittent releases) | 597.97 mg/l | |
| Marine water | 141.26 mg/l | |
| Marine water (intermittent releases) | 141.26 mg/l | |
| Fresh water sediment | 31.33 mg/kg sediment dw | |
| Marine water sediment | 3.13 mg/kg sediment dw | |
| Air | 10 mg/m ³ | |

zeolites

| Compartment | Value | Remark |
|--------------|-------------------|--------|
| Fresh water | 3.2 mg/l | |
| Marine water | 0.32 mg/l | |
| STP | 95 mg/l | |
| Soil | 600 mg/kg soil dw | |

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| Compartment | Value | Remark |
|--------------------------------------|------------------------|--------|
| Fresh water | 0.1 mg/l | |
| Marine water | 0.01 mg/l | |
| Fresh water (intermittent releases) | 1 mg/l | |
| Marine water (intermittent releases) | 0.1 mg/l | |
| STP | 54 mg/l | |
| Fresh water sediment | 1.8 mg/kg sediment dw | |
| Marine water sediment | 0.18 mg/kg sediment dw | |
| Soil | 1.45 mg/kg soil dw | |
| Oral | 4.6 mg/kg food | |

8.1.5 Control banding

If applicable and available it will be listed below.

8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

8.2.2 Individual protection measures, such as personal protective equipment

Observe strict hygiene. Do not eat, drink or smoke during work.

a) Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit.

b) Hand protection:

Protective gloves against chemicals (EN 374), Change gloves frequently.

| Materials | Measured breakthrough time | Thickness | Protection index | Remark |
|----------------|----------------------------|-----------|------------------|--------|
| nitrile rubber | > 480 minutes | > 0.5 mm | Class 6 | |

c) Eye protection:

Face shield (EN 166).

d) Skin protection:

Protective clothing (EN 14605 or EN 13034).

8.2.3 Environmental exposure controls:

See sections 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---------------------------|--|
| Physical form | Liquid |
| Odour | No data available on odour |
| Odour threshold | No data available in the literature |
| Colour | Variable in colour, depending on the composition |
| Particle size | Not applicable (liquid) |
| Explosion limits | No data available in the literature |
| Flammability | Not classified as flammable |
| Log Kow | Not applicable (mixture) |
| Dynamic viscosity | No data available in the literature |
| Kinematic viscosity | No data available in the literature |
| Melting point | No data available in the literature |
| Boiling point | No data available in the literature |
| Relative vapour density | No data available in the literature |
| Vapour pressure | 3 hPa ; 25 °C ; Calculated |
| Solubility | No data available in the literature |
| Relative density | 1.25 |
| Absolute density | 1246 kg/m ³ |
| Decomposition temperature | No data available in the literature |
| Auto-ignition temperature | No data available in the literature |
| Flash point | 212 °C |
| pH | No data available in the literature |

9.2. Other information

No data available

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SECTION 10: Stability and reactivity

10.1. Reactivity

Heating increases the fire hazard.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Precautionary measures

Keep away from naked flames/heat.

10.5. Incompatible materials

Oxidizing agents, (strong) acids, (strong) bases, isocyanates.

10.6. Hazardous decomposition products

Upon combustion: formation of CO, CO₂ and small quantities of nitrous vapours and formation of metal oxides.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

11.1.1 Test results

Acute toxicity

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No (test)data on the mixture available

Judgement is based on the relevant ingredients

Talc (Mg₃H₂(SiO₃)₄)

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Value determination | Remark |
|----------------------|-----------|----------|-----------------|---------------|---------------------|---------------------|------------------------------------|
| Oral | LD50 | OECD 423 | > 5000 mg/kg bw | | Rat (male) | Experimental value | |
| Dermal | LD50 | OECD 402 | > 2000 mg/kg bw | 24 h | Rat (male / female) | Experimental value | |
| Inhalation (aerosol) | LC50 | OECD 403 | > 2.1 mg/l | 4 h | Rat (male / female) | Experimental value | (maximum achievable concentration) |

zeolites

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Value determination | Remark |
|-------------------|-----------|------------------------|-----------------|---------------|---------------------|---------------------|--------|
| Oral | LD50 | OECD 401 | > 5110 mg/kg bw | | Rat (male / female) | Experimental value | |
| Dermal | LD50 | Equivalent to OECD 402 | > 2000 mg/kg bw | | Rabbit (female) | Experimental value | |
| Inhalation (dust) | LC50 | | > 3.35 mg/l air | 4 h | Rat (male / female) | Experimental value | |

piperazine

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Value determination | Remark |
|----------------------|-----------|------------------------|---------------|---------------|------------------------|---------------------|--------|
| Oral | LD50 | Equivalent to OECD 401 | 2600 mg/kg bw | | Rat (male / female) | Experimental value | |
| Dermal | LD50 | Equivalent to OECD 402 | 8300 mg/kg bw | 24 h | Rabbit (male / female) | Experimental value | |
| Inhalation (vapours) | LC0 | BASF test | 2 mg/l air | 4 h | Rat (male / female) | Experimental value | |

dibutylbis(dodecylthio)stannane

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Value determination | Remark |
|-------------------|-----------|----------|-------------------------------|---------------|---------------------|---------------------|--------|
| Oral | LD50 | OECD 423 | > 2000 mg/kg bw | | Rat (male / female) | Experimental value | |
| Dermal | LD50 | OECD 402 | 1000 mg/kg bw - 2000 mg/kg bw | 24 h | Rabbit (female) | Experimental value | |

Conclusion

Not classified for acute toxicity

Corrosion/irritation

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No (test)data on the mixture available

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Judgement is based on the relevant ingredients

Talc (Mg₃H₂(SiO₃)₄)

| Route of exposure | Result | Method | Exposure time | Time point | Species | Value determination | Remark |
|--------------------------------|----------------|----------------|---------------|---------------------|-------------------------------|---------------------|----------------------------------|
| Eye | Not irritating | OECD 405 | | 1; 24; 48; 72 hours | Rabbit | Experimental value | Single treatment without rinsing |
| Not applicable (in vitro test) | Not irritating | EU Method B.46 | | | Reconstructed human epidermis | Experimental value | |

zeolites

| Route of exposure | Result | Method | Exposure time | Time point | Species | Value determination | Remark |
|-------------------|----------------|----------|---------------|---------------------|---------|---------------------|----------------------------------|
| Eye | Not irritating | OECD 405 | | 24; 72 hours | Rabbit | Experimental value | Single treatment without rinsing |
| Skin | Not irritating | OECD 404 | 4 h | 1; 24; 48; 72 hours | Rabbit | Experimental value | |

piperazine

| Route of exposure | Result | Method | Exposure time | Time point | Species | Value determination | Remark |
|--------------------------------|-----------|----------|---------------|------------|-------------------------------|---------------------|--------|
| Eye | | | | | | Data waiving | |
| Not applicable (in vitro test) | Corrosive | OECD 431 | 3 minutes | | Reconstructed human epidermis | Experimental value | |

dibutylbis(dodecylthio)stannane

| Route of exposure | Result | Method | Exposure time | Time point | Species | Value determination | Remark |
|--------------------------------|------------------------|----------|---------------|-------------------------------|---------------------------------------|---------------------|--------|
| Eye | Not irritating | OECD 405 | | 1; 24; 48; 72 hrs; 7; 14 days | Rabbit | Experimental value | |
| Not applicable (in vitro test) | Not corrosive | OECD 435 | | | Reconstructed human corneal epidermis | Experimental value | |
| Skin | Irritating; category 2 | | | | | Literature study | |

Conclusion

Not classified as irritating to the skin

Not classified as irritating to the eyes

Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

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No (test)data on the mixture available

Judgement is based on the relevant ingredients

Talc (Mg₃H₂(SiO₃)₄)

| Route of exposure | Result | Method | Exposure time | Observation time point | Species | Value determination | Remark |
|-------------------|-----------------|----------|---------------|------------------------|---------------------|---------------------|--------|
| Skin | Not sensitizing | OECD 406 | | | Guinea pig (female) | Experimental value | |
| Inhalation | Not sensitizing | | | | Rat (male) | Experimental value | |

zeolites

| Route of exposure | Result | Method | Exposure time | Observation time point | Species | Value determination | Remark |
|-------------------|-----------------|----------|---------------|------------------------|------------|---------------------|--------|
| Skin | Not sensitizing | OECD 406 | | | Guinea pig | Experimental value | |

piperazine

| Route of exposure | Result | Method | Exposure time | Observation time point | Species | Value determination | Remark |
|----------------------|-------------|------------------------|---------------|------------------------|-----------------------|---------------------|--------|
| Dermal (on the ears) | Sensitizing | Equivalent to OECD 429 | | | Mouse (female) | Experimental value | |
| Inhalation (dust) | Sensitizing | Human observation | | | Human (male / female) | Experimental value | |

dibutylbis(dodecylthio)stannane

| Route of exposure | Result | Method | Exposure time | Observation time point | Species | Value determination | Remark |
|-------------------|-------------|----------|---------------|------------------------|----------------------------|---------------------|--------|
| Skin | Sensitizing | OECD 406 | | | Guinea pig (male / female) | Read-across | |

Conclusion

Not classified as sensitizing for skin

Not classified as sensitizing for inhalation

Specific target organ toxicity

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No (test)data on the mixture available

Judgement is based on the relevant ingredients

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Talc (Mg₃H₂(SiO₃)₄)

| Route of exposure | Parameter | Method | Value | Organ | Effect | Exposure time | Species | Value determination |
|----------------------|-----------|------------------------|----------------------------|-------|-----------|------------------------------------|---------------------|---------------------|
| Oral (diet) | NOAEL | Equivalent to OECD 452 | 100 mg/kg bw/day | | No effect | 101 day(s) | Rat (male / female) | Experimental value |
| Dermal | | | | | | | | Data waiving |
| Inhalation (aerosol) | NOAEC | Equivalent to OECD 452 | 10.8 mg/m ³ air | | No effect | 52 weeks (7h / day, 5 days / week) | Rat (male / female) | Experimental value |

zeolites

| Route of exposure | Parameter | Method | Value | Organ | Effect | Exposure time | Species | Value determination |
|-------------------|-----------|--------------------------|----------------------------|-------|-----------|--------------------------|---------------------|---------------------|
| Oral (diet) | NOAEL | Subchronic toxicity test | 5000 ppm | | No effect | 90 day(s) | Rat (male) | Experimental value |
| Oral (diet) | NOAEL | Subchronic toxicity test | 10000 ppm | | No effect | 90 day(s) | Rat (female) | Experimental value |
| Dermal | | | | | | | | Data waiving |
| Inhalation (dust) | NOAEL | | > 20 mg/m ³ air | | No effect | 4 weeks (3 times / week) | Rat (male / female) | |

piperazine

| Route of exposure | Parameter | Method | Value | Organ | Effect | Exposure time | Species | Value determination |
|-------------------|-----------|----------|------------------|-------|-----------|---------------|---------------------|---------------------|
| Oral (diet) | NOAEL | OECD 408 | 627 mg/kg bw/day | | No effect | 90 day(s) | Rat (male / female) | Experimental value |

dibutylbis(dodecylthio)stannane

| Route of exposure | Parameter | Method | Value | Organ | Effect | Exposure time | Species | Value determination |
|-------------------|-----------|--------|---------------|-------|--------|---------------|---------|---------------------|
| Unknown | | | STOT RE cat.1 | | | | | Literature study |

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

MEGAPLAST PU 25S curative

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Talc (Mg₃H₂(SiO₃)₄)

| Result | Method | Test substrate | Effect | Value determination | Remark |
|---|------------------------|--------------------------|--------|---------------------|--------|
| Negative with metabolic activation, negative without metabolic activation | Equivalent to OECD 471 | Bacteria (S.typhimurium) | | Experimental value | |

zeolites

| Result | Method | Test substrate | Effect | Value determination | Remark |
|---|------------------------|---------------------------------------|--------|---------------------|--------|
| Negative with metabolic activation, negative without metabolic activation | Equivalent to OECD 471 | Bacteria (S. typhimurium and E. coli) | | Experimental value | |
| Negative with metabolic activation, negative without metabolic activation | OECD 476 | Mouse (lymphoma L5178Y cells) | | Experimental value | |

piperazine

| Result | Method | Test substrate | Effect | Value determination | Remark |
|---|------------------------|-------------------------------|--------|---------------------|--------|
| Negative with metabolic activation, negative without metabolic activation | Equivalent to OECD 476 | Mouse (lymphoma L5178Y cells) | | Experimental value | |
| Negative with metabolic activation, negative without metabolic activation | Equivalent to OECD 471 | Bacteria (S.typhimurium) | | Experimental value | |

dibutylbis(dodecylthio)stannane

| Result | Method | Test substrate | Effect | Value determination | Remark |
|---|----------|---------------------------------------|--------|---------------------|--------|
| Negative with metabolic activation, negative without metabolic activation | OECD 471 | Bacteria (S. typhimurium and E. coli) | | Experimental value | |

Mutagenicity (in vivo)

MEGAPLAST PU 25S curative

No (test)data on the mixture available

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BIG number: 45215

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MEGAPLAST PU 25S curative

Judgement is based on the relevant ingredients

Talc (Mg₃H₂(SiO₃)₄)

| Result | Method | Exposure time | Test substrate | Organ | Value determination |
|--------------------------------|------------------------|-------------------|----------------|-------|---------------------|
| Negative (Oral (stomach tube)) | Equivalent to OECD 478 | 5 days (1x / day) | Rat (male) | | Experimental value |

zeolites

| Result | Method | Exposure time | Test substrate | Organ | Value determination |
|--------------------------------|------------------------|---------------|----------------|-------|---------------------|
| Negative (Oral (stomach tube)) | Equivalent to OECD 475 | | Rat (male) | | Experimental value |

piperazine

| Result | Method | Exposure time | Test substrate | Organ | Value determination |
|--------------------------------|------------------------|---------------|-----------------------|-------|---------------------|
| Negative (Oral (stomach tube)) | Equivalent to OECD 474 | | Mouse (male / female) | | Experimental value |

dibutylbis(dodecylthio)stannane

| Result | Method | Exposure time | Test substrate | Organ | Value determination |
|----------|--------|---------------|----------------|-------|---------------------|
| Positive | | | | | Literature study |

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

MEGAPLAST PU 25S curative

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Talc (Mg₃H₂(SiO₃)₄)

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value determination |
|----------------------|-----------|----------|--------------------------|---|---------------------|------------------------|-------|---------------------|
| Inhalation (aerosol) | NOAEC | OECD 453 | 18 mg/m ³ air | 113 weeks (6h / day, 5 days / week) - 122 weeks (6h / day, 5 days / week) | Rat (male / female) | No carcinogenic effect | | Experimental value |
| Oral (diet) | NOAEL | OECD 453 | 100 mg/kg bw/day | 101 day(s) | Rat (male / female) | No carcinogenic effect | | Experimental value |

zeolites

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value determination |
|-------------------|-----------|-----------------------------|-------------------|---------------|---------------------|------------------------|-------|---------------------|
| Oral (diet) | NOAEL | Carcinogenic toxicity study | ≥ 60 mg/kg bw/day | 104 week(s) | Rat (male / female) | No carcinogenic effect | | Experimental value |

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

MEGAPLAST PU 25S curative

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Talc (Mg₃H₂(SiO₃)₄)

| | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value determination |
|--|-----------|------------------------------|---------------------|--------------------|-----------------|-----------|-------|---------------------|
| Developmental toxicity (Oral (stomach tube)) | NOAEL | Developmental toxicity study | 1600 mg/kg bw/day | 10 days (1x / day) | Rat | No effect | | Experimental value |
| Maternal toxicity (Oral (stomach tube)) | NOAEL | Developmental toxicity study | ≥ 1600 mg/kg bw/day | 10 days (1x / day) | Rat | No effect | | Experimental value |
| Effects on fertility (Oral (stomach tube)) | NOAEL | Equivalent to OECD 416 | > 900 mg/kg bw/day | 13 days (1x / day) | Rabbit (female) | No effect | | Experimental value |

zeolites

| | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value determination |
|--|-----------|------------------------|---------------------|----------------------------|------------|-----------|--------|---------------------|
| Developmental toxicity (Oral (stomach tube)) | NOAEL | Equivalent to OECD 414 | > 1600 mg/kg bw/day | 10 days (gestation, daily) | Rat | No effect | | Experimental value |
| Maternal toxicity (Oral (stomach tube)) | NOAEL | Equivalent to OECD 414 | > 1600 mg/kg bw/day | 10 days (gestation, daily) | Rat | No effect | | Experimental value |
| Effects on fertility (Oral (diet)) | NOAEL | | ≥ 2 % | | Rat (male) | No effect | Testes | Experimental value |

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MEGAPLAST PU 25S curative

piperazine

| | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value determination |
|--|-----------|----------|------------------|---------------|--------------|-----------|--------|---------------------|
| Developmental toxicity (Oral (stomach tube)) | NOAEL | OECD 414 | 420 mg/kg bw/day | 10 day(s) | Rat | No effect | Foetus | Experimental value |
| Maternal toxicity (Oral (stomach tube)) | NOAEL | OECD 414 | 420 mg/kg bw/day | 10 day(s) | Rat | No effect | | Experimental value |
| Effects on fertility (Oral (diet)) | NOAEL (P) | OECD 416 | 222 mg/kg bw/day | | Rat (female) | No effect | | Experimental value |
| | NOAEL (P) | OECD 416 | 204 mg/kg bw/day | | Rat (male) | No effect | | Experimental value |

dibutylbis(dodecylthio)stannane

| | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value determination |
|------------------------|-----------|--------|-------------|---------------|---------|--------|-------|---------------------|
| Developmental toxicity | | | category 1B | | | | | Literature study |
| Effects on fertility | | | category 1B | | | | | Literature study |

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

MEGAPLAST PU 25S curative

No (test)data on the mixture available

Chronic effects from short and long-term exposure

MEGAPLAST PU 25S curative

Skin rash/inflammation. Respiratory difficulties.

11.2. Information on other hazards

No evidence of endocrine disrupting properties

SECTION 12: Ecological information

12.1. Toxicity

MEGAPLAST PU 25S curative

No (test)data on the mixture available

Classification is based on the relevant ingredients

Talc (Mg3H2(SiO3)4)

| | Parameter | Method | Value | Duration | Species | Test design | Fresh/salt water | Value determination |
|---|-----------|--------------|------------|-----------|-------------|-------------|------------------|---------------------|
| Acute toxicity fishes | LC50 | ECOSAR v1.00 | 89581 mg/l | 96 h | Pisces | | Fresh water | QSAR |
| Acute toxicity crustacea | LC50 | ECOSAR v1.00 | 36812 mg/l | 48 h | Daphnia sp. | | Fresh water | QSAR |
| Toxicity algae and other aquatic plants | EC50 | ECOSAR v1.00 | 7203 mg/l | 96 h | Algae | | Fresh water | QSAR |
| | NOEC | ECOSAR v1.00 | 918 mg/l | 30 day(s) | Algae | | Fresh water | QSAR |
| Long-term toxicity fish | NOEC | ECOSAR v1.00 | 5980 mg/l | 30 day(s) | Pisces | | Fresh water | QSAR |
| Long-term toxicity aquatic crustacea | NOEC | ECOSAR v1.00 | 1460 mg/l | 30 day(s) | Daphnia sp. | | Fresh water | QSAR |

Reason for revision: 3;8;9;11;12

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BIG number: 45215

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MEGAPLAST PU 25S curative

zeolites

| | Parameter | Method | Value | Duration | Species | Test design | Fresh/salt water | Value determination |
|---|-----------|--------------------|-------------------|-----------|-------------------------|---------------------|------------------|---|
| Acute toxicity fishes | NOEC | EPA 660/3 - 75/009 | > 680 mg/l | 96 h | Pimephales promelas | Static system | Fresh water | Experimental value; Nominal concentration |
| Acute toxicity crustacea | EC50 | OECD 202 | 2808 mg/l | 24 h | Daphnia magna | Static system | Fresh water | Read-across; Nominal concentration |
| Toxicity algae and other aquatic plants | ErC50 | OECD 201 | 18 mg/l - 34 mg/l | 96 h | Desmodesmus subspicatus | Static system | Fresh water | Read-across; Nominal concentration |
| | NOEC | OECD 201 | 10 mg/l | 96 h | Desmodesmus subspicatus | Static system | Fresh water | Read-across; Nominal concentration |
| Long-term toxicity fish | NOEC | US EPA | > 86.7 mg/l | 30 day(s) | Pimephales promelas | Flow-through system | Fresh water | Experimental value |
| Long-term toxicity aquatic crustacea | NOEC | OECD 211 | 32 mg/l | 21 day(s) | Daphnia magna | Semi-static system | Fresh water | Experimental value; Nominal concentration |

piperazine

| | Parameter | Method | Value | Duration | Species | Test design | Fresh/salt water | Value determination |
|---|-----------|---------------|-------------|-----------|---------------------------------|--------------------|------------------|--------------------------------------|
| Acute toxicity fishes | LC50 | EU Method C.1 | > 1800 mg/l | 96 h | Poecilia reticulata | Semi-static system | Fresh water | Experimental value; Lethal |
| Acute toxicity crustacea | EC50 | EU Method C.2 | 21 mg/l | 48 h | Daphnia magna | Static system | Fresh water | Experimental value; Locomotor effect |
| Toxicity algae and other aquatic plants | NOEC | OECD 201 | > 1000 mg/l | 72 h | Pseudokirchneriella subcapitata | Static system | Fresh water | Experimental value; Growth rate |
| Long-term toxicity fish | | | | | | | | Data waiving |
| Long-term toxicity aquatic crustacea | NOEC | OECD 211 | 50 mg/l | 21 day(s) | Daphnia magna | Semi-static system | Fresh water | Experimental value; Reproduction |
| Toxicity aquatic micro-organisms | EC0 | OECD 209 | 1000 mg/l | < 1 h | Activated sludge | | | Experimental value |

dibutylbis(dodecylthio)stannane

| | Parameter | Method | Value | Duration | Species | Test design | Fresh/salt water | Value determination |
|---|-----------|----------|------------|----------|-------------------------|---------------|------------------|--------------------------|
| Acute toxicity crustacea | EC50 | OECD 202 | 0.11 mg/l | 48 h | Daphnia magna | Static system | Fresh water | Experimental value; GLP |
| Toxicity algae and other aquatic plants | EC50 | OECD 201 | ≥ 1.6 mg/l | 72 h | Desmodesmus subspicatus | | Fresh water | Read-across; Growth rate |
| Long-term toxicity fish | | | | | | | | Data waiving |

Conclusion

Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

Talc (Mg₃H₂(SiO₃)₄)

Phototransformation air (DT50 air)

| Method | Value | Conc. OH-radicals | Value determination |
|--------------|----------|------------------------|---------------------|
| AOPWIN v1.92 | 18.602 h | 1.5E6 /cm ³ | QSAR |

piperazine

Biodegradation water

| Method | Value | Duration | Value determination |
|-----------|--------------------------|-----------|---------------------|
| OECD 301F | 65 %; Oxygen consumption | 28 day(s) | Experimental value |

Phototransformation air (DT50 air)

| Method | Value | Conc. OH-radicals | Value determination |
|--------|---------|----------------------|---------------------|
| AOPWIN | 2.282 h | 5E5 /cm ³ | QSAR |

dibutylbis(dodecylthio)stannane

Biodegradation water

| Method | Value | Duration | Value determination |
|-----------|----------|-----------|---------------------|
| OECD 301F | 0 %; GLP | 28 day(s) | Read-across |

Conclusion

Water

Contains non readily biodegradable component(s)

12.3. Bioaccumulative potential

MEGAPLAST PU 25S curative

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Log Kow

| Method | Remark | Value | Temperature | Value determination |
|--------|--------------------------|-------|-------------|---------------------|
| | Not applicable (mixture) | | | |

Talc (Mg₃H₂(SiO₃)₄)

BCF other aquatic organisms

| Parameter | Method | Value | Duration | Species | Value determination |
|-----------|--------------|------------|----------|---------|---------------------|
| BCF | BCFBAF v3.01 | 3.162 l/kg | | | QSAR |

Log Kow

| Method | Remark | Value | Temperature | Value determination |
|--------|--------|-------|-------------|---------------------|
| KOWWIN | | -9.4 | 25 °C | QSAR |

zeolites

BCF other aquatic organisms

| Parameter | Method | Value | Duration | Species | Value determination |
|-----------|--------|---------------------------|-----------|---------|---------------------|
| BCF | | 0.59 - 0.95; Fresh weight | 28 day(s) | | Experimental value |

Log Kow

| Method | Remark | Value | Temperature | Value determination |
|--------|----------------------------|-------|-------------|---------------------|
| | Not applicable (inorganic) | | | |

piperazine

BCF fishes

| Parameter | Method | Value | Duration | Species | Value determination |
|-----------|--------|----------------|----------|-----------------|---------------------|
| BCF | | < 3.9; Chronic | | Cyprinus carpio | Literature study |

Log Kow

| Method | Remark | Value | Temperature | Value determination |
|----------|--------|-------|-------------|---------------------|
| OECD 107 | | -1.24 | 25 °C | Experimental value |

dibutylbis(dodecylthio)stannane

Log Kow

| Method | Remark | Value | Temperature | Value determination |
|---------------|--------|-------|-------------|---------------------|
| EU Method A.8 | | 3.11 | 22 °C | Experimental value |

Conclusion

Does not contain bioaccumulative component(s)

12.4. Mobility in soil

Talc (Mg₃H₂(SiO₃)₄)

Percent distribution

| Method | Fraction air | Fraction biota | Fraction sediment | Fraction soil | Fraction water | Value determination |
|------------------|--------------|----------------|-------------------|---------------|----------------|---------------------|
| Mackay level III | 0 % | 0 % | 39.3 % | 56 % | 4.72 % | QSAR |

zeolites

(log) Koc

| Parameter | Method | Value | Value determination |
|-----------|--------|-------|---------------------|
| | | | Data waiving |

Percent distribution

| Method | Fraction air | Fraction biota | Fraction sediment | Fraction soil | Fraction water | Value determination |
|--------|--------------|----------------|-------------------|---------------|----------------|---------------------|
| | 0.00 % | | 0.31 % | 59.79 % | 39.9 % | Calculated value |

piperazine

(log) Koc

| Parameter | Method | Value | Value determination |
|-----------|--------|-------|---------------------|
| log Koc | | 2.71 | Calculated value |

dibutylbis(dodecylthio)stannane

(log) Koc

| Parameter | Method | Value | Value determination |
|-----------|-------------------|-------|---------------------|
| log Koc | SRC PCKOCWIN v2.0 | 9.588 | Calculated value |

Conclusion

Contains component(s) with potential for mobility in the soil

Contains component(s) that adsorb(s) into the soil

12.5. Results of PBT and vPvB assessment

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties

12.7. Other adverse effects

MEGAPLAST PU 25S curative

Greenhouse gases

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

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Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

Talc (Mg₃H₂(SiO₃)₄)

Water ecotoxicity pH

pH shift

piperazine

Groundwater

Groundwater pollutant

Water ecotoxicity pH

pH shift

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

European Union

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

08 04 09* (wastes from MFSU of adhesives and sealants (including waterproofing products): waste adhesives and sealants containing organic solvents or other hazardous substances). Depending on branch of industry and production process, also other waste codes may be applicable.

13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

13.1.3 Packaging/Container

European Union

Waste material code packaging (Directive 2008/98/EC).

15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

14.1. UN number

| | |
|-----------|-------------|
| Transport | Not subject |
|-----------|-------------|

14.2. UN proper shipping name

14.3. Transport hazard class(es)

| | |
|------------------------------|--|
| Hazard identification number | |
| Class | |
| Classification code | |

14.4. Packing group

| | |
|---------------|--|
| Packing group | |
| Labels | |

14.5. Environmental hazards

| | |
|--|----|
| Environmentally hazardous substance mark | no |
|--|----|

14.6. Special precautions for user

| | |
|--------------------|--|
| Special provisions | |
| Limited quantities | |

Rail (RID)

14.1. UN number

| | |
|-----------|-------------|
| Transport | Not subject |
|-----------|-------------|

14.2. UN proper shipping name

14.3. Transport hazard class(es)

| | |
|------------------------------|--|
| Hazard identification number | |
| Class | |
| Classification code | |

14.4. Packing group

| | |
|---------------|--|
| Packing group | |
| Labels | |

14.5. Environmental hazards

| | |
|--|----|
| Environmentally hazardous substance mark | no |
|--|----|

14.6. Special precautions for user

| | |
|--------------------|--|
| Special provisions | |
| Limited quantities | |

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Inland waterways (ADN)

| | | |
|------------------------------------|--|------|
| 14.1. UN number | UN number | 9006 |
| 14.2. UN proper shipping name | | |
| 14.3. Transport hazard class(es) | Class | 9 |
| | Classification code | M12 |
| 14.4. Packing group | Packing group | |
| | Labels | |
| 14.5. Environmental hazards | Environmentally hazardous substance mark | no |
| 14.6. Special precautions for user | Special provisions | |
| | Limited quantities | |

Sea (IMDG/IMSBC)

| | | |
|---|--|---|
| 14.1. UN number | Transport | Not subject |
| 14.2. UN proper shipping name | | |
| 14.3. Transport hazard class(es) | Class | |
| 14.4. Packing group | Packing group | |
| | Labels | |
| 14.5. Environmental hazards | Marine pollutant | |
| | Environmentally hazardous substance mark | no |
| 14.6. Special precautions for user | Special provisions | |
| | Limited quantities | |
| 14.7. Maritime transport in bulk according to IMO instruments | Annex II of MARPOL 73/78 | Not applicable, based on available data |

Air (ICAO-TI/IATA-DGR)

| | | |
|------------------------------------|--|-------------|
| 14.1. UN number | Transport | Not subject |
| 14.2. UN proper shipping name | | |
| 14.3. Transport hazard class(es) | Class | |
| 14.4. Packing group | Packing group | |
| | Labels | |
| 14.5. Environmental hazards | Environmentally hazardous substance mark | no |
| 14.6. Special precautions for user | Special provisions | |
| Passenger and cargo transport | Limited quantities: maximum net quantity per packaging | |

SECTION 15: Regulatory information

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

European legislation:

VOC content Directive 2010/75/EU

| VOC content | Remark |
|-------------|-------------------|
| | No data available |

Directive 2012/18/EU (Seveso III)

Not subject to registration according to Directive 2012/18/EU (Seveso III)

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

| | Designation of the substance, of the group of substances or of the mixture | Conditions of restriction |
|-----------------------------------|--|---|
| · dibutylbis(dodecylthio)stannane | Liquid substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories | 1. Shall not be used in: — ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, — tricks and jokes, — games for one or more participants, or any article intended to be used as such, even with ornamental aspects, |

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| | | |
|-----------------------------------|---|--|
| | 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1. | 2. Articles not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: — can be used as fuel in decorative oil lamps for supply to the general public, and, — present an aspiration hazard and are labelled with H304, 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN). 5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: “Keep lamps filled with this liquid out of the reach of children”; and, by 1 December 2010, “Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life- threatening lung damage”; b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: “Just a sip of grill lighter may lead to life threatening lung damage”; c) lamp oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010. |
| · dibutylbis(dodecylthio)stannane | Organostannic compounds | 1. Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is acting as biocide in free association paint. 2. Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture acts as biocide to prevent the fouling by micro-organisms, plants or animals of: (a) all craft irrespective of their length intended for use in marine, coastal, estuarine and inland waterways and lakes; (b) cages, floats, nets and any other appliances or equipment used for fish or shellfish farming; (c) any totally or partly submerged appliance or equipment. 3. Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is intended for use in the treatment of industrial waters. 4. Tri-substituted organostannic compounds: a) Tri-substituted organostannic compounds such as tributyltin (TBT) compounds and triphenyltin (TPT) compounds shall not be used after 1 July 2010 in articles where the concentration in the article, or part thereof, is greater than the equivalent of 0,1 % by weight of tin. b) Articles not complying with point (a) shall not be placed on the market after 1 July 2010, except for articles that were already in use in the Community before that date. 5. Dibutyltin (DBT) compounds: a) Dibutyltin (DBT) compounds shall not be used after 1 January 2012 in mixtures and articles for supply to the general public where the concentration in the mixture or the article, or part thereof, is greater than the equivalent of 0,1 % by weight of tin. b) Articles and mixtures not complying with point (a) shall not be placed on the market after 1 January 2012, except for articles that were already in use in the Community before that date. c) By way of derogation, points (a) and (b) shall not apply until 1 January 2015 to the following articles and mixtures for supply to the general public: — one-component and two-component room temperature vulcanisation sealants (RTV-1 and RTV-2 sealants) and adhesives, — paints and coatings containing DBT compounds as catalysts when applied on articles, — soft polyvinyl chloride (PVC) profiles whether by themselves or coextruded with hard PVC, — fabrics coated with PVC containing DBT compounds as stabilisers when intended for outdoor applications, — outdoor rainwater pipes, gutters and fittings, as well as covering material for roofing and façades, d) By way of derogation, points (a) and (b) shall not apply to materials and articles regulated under Regulation (EC) No 1935/2004. 6. Dioctyltin (DOT) compound: (a) Dioctyltin (DOT) compounds shall not be used after 1 January 2012 in the following articles for supply to, or use by, the general public, where the concentration in the article, or part thereof, is greater than the equivalent of 0,1 % by weight of tin: — textile articles intended to come into contact with the skin, — gloves, — footwear or part of footwear intended to come into contact with the skin, — wall and floor coverings, — childcare articles, — female hygiene products, — nappies, — two-component room temperature vulcanisation moulding kits (RTV-2 moulding kits). (b) Articles not complying with point (a) shall not be placed on the market after 1 January 2012, except for articles that were already in use in the Community before that date. |
| · piperazine | Substances falling within one or more of the following points: (a) substances classified as any of the following in Part 3 of Annex VI to Regulation (EC) No 1272/2008: — carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, but excluding any such substances classified due to effects only following exposure by inhalation — reproductive toxicant category 1A, 1B or 2 | Mixtures for tattooing purposes are subject to the restrictions of Regulation (EU) 2020/2081 |

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but excluding any such substances classified due to effects only following exposure by inhalation
 — skin sensitiser category 1, 1A or 1B
 — skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2
 — serious eye damage category 1 or eye irritant category 2
 (b) substances listed in Annex II to Regulation (EC) No 1223/2009 of the European Parliament and of the Council
 (c) substances listed in Annex IV to Regulation (EC) No 1223/2009 for which a condition is specified in at least one of the columns g, h and i of the table in that Annex (d) substances listed in Appendix 13 to this Annex.
 The ancillary requirements in paragraphs 7 and 8 of column 2 of this entry apply to all mixtures for use for tattooing purposes, whether or not they contain a substance falling within points (a) to (d) of this column of this entry.

National legislation Belgium

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No data available

dibutylbis(dodecylthio)stannane

| | |
|---|---|
| Résorption peau | Etain (composés organiques de) (en Sn); D; La mention "D" signifie que la résorption de l'agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l'exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l'agent dans l'air. |
| Agents cancérogènes, mutagènes et reprotoxiques (Code du bien-être au travail, Livre VI, titre 2) | reprotoxique catégorie 1A ou 1B selon CLP, n.s.a. |

National legislation The Netherlands

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| | |
|----------------------|---|
| Waterbezwaarlijkheid | Z (1); Algemene Beoordelingsmethodiek (ABM) |
|----------------------|---|

piperazine

| | |
|--|--|
| SZW - Lijst van voor de voortplanting giftige stoffen (ontwikkeling) | Piperazine; Opgenomen in SZW-lijst van voor de voortplanting giftige stoffen (ontwikkeling); 2 |
| SZW - Lijst van voor de voortplanting giftige stoffen (vruchtbaarheid) | Piperazine; Opgenomen in SZW-lijst van voor de voortplanting giftige stoffen (vruchtbaarheid); 2 |

National legislation France

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No data available

piperazine

| | |
|--|--|
| Catégorie toxique pour la reproduction | Pipérazine (poussières et vapeurs); R2 |
|--|--|

National legislation Germany

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| | |
|-----|--|
| WGK | 2; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017 |
|-----|--|

Talc (Mg3H2(SiO3)4)

| | |
|---------|-------|
| TA-Luft | 5.2.1 |
|---------|-------|

zeolites

| | |
|---------|-------|
| TA-Luft | 5.2.1 |
|---------|-------|

piperazine

| | |
|---------|---------|
| TA-Luft | 5.2.5/I |
|---------|---------|

dibutylbis(dodecylthio)stannane

| | |
|---------------------------------------|--|
| TA-Luft | 5.2.7.1.3 |
| TRGS900 - Risiko der Fruchtschädigung | Zinnverbindungen, organische - n-Butylzinnverbindungen: Di-n-butylzinnverbindungen; Z; Risiko der Fruchtschädigung kann auch bei Einhaltung des AGW und des BGW nicht ausgeschlossen werden. |
| Hautresorptive Stoffe | Zinnverbindungen, organische - n-Butylzinnverbindungen: Di-n-butylzinnverbindungen; H; Hautresorptiv |

National legislation Austria

MEGAPLAST PU 25S curative

No data available

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piperazine

| | |
|--|-------------------------------|
| Fortpflanzungsgefährdend [fruchtschädigend (entwicklungsschädigend)] | Piperazin und seine Salze; d |
| Fortpflanzungsgefährdend [Beeinträchtigung der Fortpflanzungsfähigkeit (Fruchtbarkeit)] | Piperazin und seine Salze; f |
| Gefahr der Sensibilisierung der Haut | Piperazin und seine Salze; Sh |
| Gefahr der Sensibilisierung der Atemwege | Piperazin und seine Salze; Sa |

National legislation United Kingdom

MEGAPLAST PU 25S curative

No data available

piperazine

| | |
|---------------------------|-----------------|
| Skin Sensitisation | Piperazine; Sen |
| Respiratory sensitisation | Piperazine; Sen |

dibutylbis(dodecylthio)stannane

| | |
|-----------------|---|
| Skin absorption | Tin compounds, organic, except Cyhexatin (ISO), (as Sn); Sk |
|-----------------|---|

Other relevant data

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No data available

Talc (Mg₃H₂(SiO₃)₄)

| | |
|-----------------------|---|
| IARC - classification | 3; Talc |
| TLV - Carcinogen | Talc: Containing no asbestos fibers; A4 Talc: Containing asbestos fibers; A1 |

zeolites

| | |
|-----------------------|---------------------------------|
| IARC - classification | 3; Zeolites other than erionite |
|-----------------------|---------------------------------|

piperazine

| | |
|---------------------------------|---|
| TLV - Skin Sensitisation | Piperazine and salts, as piperazine; SEN; Sensitization |
| TLV - Respiratory Sensitisation | Piperazine and salts, as piperazine; SEN; Sensitization |
| TLV - Carcinogen | Piperazine and salts, as piperazine; A4 |

dibutylbis(dodecylthio)stannane

| | |
|-----------------------|---|
| TLV - Skin absorption | Tin, organic compounds, as Sn; Skin; Danger of cutaneous absorption |
| TLV - Carcinogen | Tin, organic compounds, as Sn; A4 |

15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

SECTION 16: Other information

Full text of any H- and EUH-statements referred to under section 3:

H228 Flammable solid.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341 Suspected of causing genetic defects.
H360FD May damage fertility. May damage the unborn child.
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
H372 Causes damage to organs (thymus) through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
EUH208 Contains a sensitising substance. May produce an allergic reaction.

| | |
|--------------|--|
| (*) | INTERNAL CLASSIFICATION BY BIG |
| ADI | Acceptable daily intake |
| AOEL | Acceptable operator exposure level |
| ATE | Acute Toxicity Estimate |
| CLP (EU-GHS) | Classification, labelling and packaging (Globally Harmonised System in Europe) |
| DMEL | Derived Minimal Effect Level |
| DNEL | Derived No Effect Level |
| EC50 | Effect Concentration 50 % |
| ErC50 | EC50 in terms of reduction of growth rate |
| LC50 | Lethal Concentration 50 % |
| LD50 | Lethal Dose 50 % |
| NOAEL | No Observed Adverse Effect Level |
| NOEC | No Observed Effect Concentration |

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| | |
|------|--|
| OECD | Organisation for Economic Co-operation and Development |
| PBT | Persistent, Bioaccumulative & Toxic |
| PNEC | Predicted No Effect Concentration |
| STP | Sludge Treatment Process |
| vPvB | very Persistent & very Bioaccumulative |

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.