

Safety Data Sheet

according to UK REACH Regulation

UM-H, Comp. A

Revision date: 26.10.2022

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SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

| CAS No | Chemical name | | | Quantity |
|------------|---|----------|------------------|-------------|
| | EC No | Index No | REACH No | |
| | Classification (GB CLP Regulation) | | | |
| 2082-81-7 | Tetramethylene dimethacrylate | | | 15 - < 20 % |
| | 218-218-1 | | 01-2119967415-30 | |
| | Skin Sens. 1B; H317 | | | |
| 27813-02-1 | Methacrylic acid, monoester with propane-1,2-diol | | | < 1 % |
| | 248-666-3 | | 01-2119490226-37 | |
| | Eye Irrit. 2, Skin Sens. 1; H319 H317 | | | |
| 38668-48-3 | 1,1'-(p-Tolylimino)dipropan-2-ol | | | < 1 % |
| | 254-075-1 | | 01-2119980937-17 | |
| | Acute Tox. 2, Eye Irrit. 2, Aquatic Chronic 3; H300 H319 H412 | | | |

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|------------|--|---|-------------|
| | Specific Conc. Limits, M-factors and ATE | | |
| 2082-81-7 | 218-218-1 | Tetramethylene dimethacrylate | 15 - < 20 % |
| | dermal: LD50 = > 3000 mg/kg; oral: LD50 = 10066 mg/kg | | |
| 27813-02-1 | 248-666-3 | Methacrylic acid, monoester with propane-1,2-diol | < 1 % |
| | dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 2000 mg/kg | | |
| 38668-48-3 | 254-075-1 | 1,1'-(p-Tolylimino)dipropan-2-ol | < 1 % |
| | dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 25 - < 200 mg/kg | | |

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Take off immediately all contaminated clothing and wash it before reuse. Get medical advice/attention if you feel unwell.

After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion

Do NOT induce vomiting. Rinse mouth thoroughly with water. Medical treatment necessary.

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

May cause an allergic skin reaction.

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

Treat symptomatically.

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SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Foam
Extinguishing powder
Water spray jet
Carbon dioxide (CO₂)

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Pyrolysis products, toxic
Carbon monoxide

5.3. Advice for firefighters

In case of fire and/or explosion do not breathe fumes.
Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.
Do not allow entering drains or surface water.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Provide adequate ventilation.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up**Other information**

Collect spillage. Take up mechanically, placing in appropriate containers for disposal. Suitable material for taking up: Sand
Treat the recovered material as prescribed in the section on waste disposal.
Retain contaminated washing water and dispose it.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Use only outdoors or in a well-ventilated area.
Wear personal protection equipment (refer to section 8).
Avoid contact with skin, eyes and clothes.
When using do not eat, drink or smoke.
Wash hands thoroughly after handling.
Take off contaminated clothing and wash it before reuse.

Advice on general occupational hygiene

Take off contaminated clothing and wash it before reuse. Draw up and observe skin protection programme.
Wash hands thoroughly after handling. When using do not eat, drink or smoke.

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7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Store in a place accessible by authorized persons only. Keep only in the original container in a cool, well-ventilated place.

Hints on joint storage

Do not use for products which come into contact with the food stuffs.

Further information on storage conditions

storage temperature: 5 - 25°C

7.3. Specific end use(s)

Adhesive mortar for fastening elements A-component (resin)

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****DNEL/DMEL values**

| CAS No | Substance | Exposure route | Effect | Value |
|------------|---|----------------|----------|------------------------|
| 2082-81-7 | Tetramethylene dimethacrylate | | | |
| | Worker DNEL, long-term | inhalation | systemic | 14,5 mg/m ³ |
| | Worker DNEL, long-term | dermal | systemic | 4,2 mg/kg bw/day |
| | Consumer DNEL, long-term | inhalation | systemic | 4,3 mg/m ³ |
| | Consumer DNEL, long-term | dermal | systemic | 2,5 mg/kg bw/day |
| | Consumer DNEL, long-term | oral | systemic | 2,5 mg/kg bw/day |
| 27813-02-1 | Methacrylic acid, monoester with propane-1,2-diol | | | |
| | Worker DNEL, long-term | inhalation | systemic | 14,7 mg/m ³ |
| | Worker DNEL, long-term | dermal | systemic | 4,2 mg/kg bw/day |
| | Consumer DNEL, long-term | inhalation | systemic | 8,8 mg/m ³ |
| | Consumer DNEL, long-term | dermal | systemic | 2,5 mg/kg bw/day |
| | Consumer DNEL, long-term | oral | systemic | 2,5 mg/kg bw/day |
| 38668-48-3 | 1,1'-(p-Tolylimino)dipropan-2-ol | | | |
| | Worker DNEL, long-term | inhalation | systemic | 2 mg/m ³ |
| | Worker DNEL, long-term | dermal | systemic | 0,6 mg/kg bw/day |
| | Consumer DNEL, long-term | oral | systemic | 0,3 mg/kg bw/day |
| | Consumer DNEL, long-term | dermal | systemic | 0,3 mg/kg bw/day |
| | Consumer DNEL, long-term | inhalation | systemic | 0,4 mg/m ³ |

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PNEC values

| CAS No | Substance | Value |
|--|---|--------------|
| Environmental compartment | | |
| 2082-81-7 | Tetramethylene dimethacrylate | |
| Freshwater | | 0,043 mg/l |
| Marine water | | 0,004 mg/l |
| Freshwater sediment | | 3,12 mg/kg |
| Marine sediment | | 0,312 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | | 2 mg/l |
| Soil | | 0,573 mg/kg |
| 27813-02-1 | Methacrylic acid, monoester with propane-1,2-diol | |
| Freshwater | | 0,904 mg/l |
| Marine water | | 0,904 mg/l |
| Freshwater sediment | | 6,28 mg/kg |
| Marine sediment | | 6,28 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | | 10 mg/l |
| Soil | | 0,727 mg/kg |
| 38668-48-3 | 1,1'-(p-Tolylimino)dipropan-2-ol | |
| Freshwater | | 0,017 mg/l |
| Marine water | | 0,0017 mg/l |
| Freshwater sediment | | 0,0783 mg/kg |
| Marine sediment | | 0,0072 mg/kg |
| Soil | | 0,005 mg/kg |

Additional advice on limit values

This mixture contains quartz (inorganic filler) which is firmly bound in the pasty component, and thus not freely available during use, so that a risk of dust inhalation is excluded. Exposure limit values for respirable dusts are not relevant for this product.

8.2. Exposure controls**Appropriate engineering controls**

Provide adequate ventilation. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear eye/face protection.

Hand protection

Disposable gloves
 Recommended material: NBR (Nitrile rubber)
 Breakthrough time: > 480 min
 Thickness of the glove material: > 0,2 mm
 DIN-/EN-Norms EN 374

When handling with chemical substances, protective gloves must be worn with the CE-label including the four

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control digits. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Respiratory protection with combination filter A1P2 (organic gases/vapors and particles) recommended.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

| | |
|------------------|-------------------|
| Physical state: | solid (pasty) |
| Colour: | light beige |
| Odour: | characteristic |
| Odour threshold: | No data available |

Changes in the physical state

| | |
|---|----------------|
| Melting point/freezing point: | not determined |
| Boiling point or initial boiling point and boiling range: | not determined |
| Flash point: | not applicable |

Flammability

| | |
|-------------------------|----------------|
| Solid/liquid: | not determined |
| Gas: | not applicable |
| Lower explosion limits: | not determined |
| Upper explosion limits: | not determined |

Self-ignition temperature

| | |
|----------------------------|----------------|
| Solid: | not determined |
| Gas: | not applicable |
| Decomposition temperature: | not determined |
| pH-Value: | not determined |

Water solubility: The study does not need to be conducted because the substance is known to be insoluble in water.

Solubility in other solvents

| | |
|--|------------------------|
| not determined | |
| Partition coefficient n-octanol/water: | not determined |
| Vapour pressure: | not determined |
| Density (at 20 °C): | 1,77 g/cm ³ |
| Relative vapour density: | not determined |

9.2. Other information**Information with regard to physical hazard classes**

Oxidizing properties
Not oxidising.

Other safety characteristics

| | |
|-------------------|----------------|
| Solid content: | not determined |
| Evaporation rate: | not determined |

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SECTION 10: Stability and reactivity**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Response: Oxidising agent, strong

10.4. Conditions to avoid

Heat. Keep cool. Protect from sunlight.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

Based on available data, the classification criteria are not met.

| CAS No | Chemical name | | | | |
|------------|---|-------------------------|---------|--------|--------|
| | Exposure route | Dose | Species | Source | Method |
| 2082-81-7 | Tetramethylene dimethacrylate | | | | |
| | oral | LD50 10066 mg/kg | Rat | | |
| | dermal | LD50 > 3000 mg/kg | Rabbit | | |
| 27813-02-1 | Methacrylic acid, monoester with propane-1,2-diol | | | | |
| | oral | LD50 > 2000 mg/kg | Rat | | |
| | dermal | LD50 > 5000 mg/kg | Rabbit | | |
| 38668-48-3 | 1,1'-(p-Tolylimino)dipropan-2-ol | | | | |
| | oral | LD50 > 25 - < 200 mg/kg | Rat | | |
| | dermal | LD50 > 2000 mg/kg | Rat | | |

Irritation and corrosivity

Based on available data, the classification criteria are not met.

Sensitising effects

May cause an allergic skin reaction. (Tetramethylene dimethacrylate; Methacrylic acid, monoester with propane-1,2-diol)

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

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Aspiration hazard

Based on available data, the classification criteria are not met.

Further information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information**12.1. Toxicity**

The product is not: Ecotoxic.

| CAS No | Chemical name | | | | | |
|------------|---|---------------|-----------|---------|------------------------------------|----------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 2082-81-7 | Tetramethylene dimethacrylate | | | | | |
| | Acute algae toxicity | ErC50 mg/l | 9,79 | 72 h | | |
| | Crustacea toxicity | NOEC mg/l | 5,09 | 21 d | | |
| 27813-02-1 | Methacrylic acid, monoester with propane-1,2-diol | | | | | |
| | Acute algae toxicity | ErC50 mg/l | > 97,2 | 72 h | Pseudokirchneriella subcapitata | |
| | Acute crustacea toxicity | EC50 mg/l | > 143 | 48 h | Daphnia magna (Big water flea) | |
| | Algae toxicity | NOEC mg/l | | | | |
| 38668-48-3 | 1,1'-(p-Tolylimino)dipropan-2-ol | | | | | |
| | Acute fish toxicity | LC50 | 17 mg/l | 96 h | Danio rerio (zebrafish) | |
| | Acute algae toxicity | ErC50 | 245 mg/l | 72 h | Desmodesmus subspicatus | |
| | Acute crustacea toxicity | EC50 mg/l | 28,8 | 48 h | Daphnia magna (Big water flea) | |
| | Algae toxicity | NOEC mg/l | 57,8 | 72 d | Desmodesmus subspicatus | OECD 201 |

12.2. Persistence and degradability

The product has not been tested.

| CAS No | Chemical name | | | |
|------------|---|-------|----|--------|
| | Method | Value | d | Source |
| | Evaluation | | | |
| 2082-81-7 | Tetramethylene dimethacrylate | | | |
| | OECD 310 | 84 % | 28 | |
| 27813-02-1 | Methacrylic acid, monoester with propane-1,2-diol | | | |
| | OECD 301C | 81% | 28 | |

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|------------|---|---------|
| 2082-81-7 | Tetramethylene dimethacrylate | 3,1 |
| 27813-02-1 | Methacrylic acid, monoester with propane-1,2-diol | 0,97 |
| 38668-48-3 | 1,1'-(p-Tolylimino)dipropan-2-ol | 2,1 |

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

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The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Subsequent waste code numbers of the European Waste Catalogue are considered as recommendations.

Dispose of waste according to applicable legislation. Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

List of Wastes Code - residues/unused products

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

List of Wastes Code - used product

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

SECTION 14: Transport information**Land transport (ADR/RID)**

| | |
|--|--|
| 14.1. UN number or ID number: | No dangerous good in sense of this transport regulation. |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. |

Inland waterways transport (ADN)

| | |
|--|--|
| 14.1. UN number or ID number: | No dangerous good in sense of this transport regulation. |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. |

Marine transport (IMDG)

| | |
|--|--|
| 14.1. UN number or ID number: | No dangerous good in sense of this transport regulation. |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. |

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Air transport (ICAO-TI/IATA-DGR)

| | |
|--|--|
| 14.1. UN number or ID number: | No dangerous good in sense of this transport regulation. |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. |

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No information available.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 75

Information according to 2012/18/EU Not subject to 2012/18/EU (SEVESO III)
(SEVESO III):**Additional information**

VOC content: 0,7 % (DIN EN ISO 11890-2)

To follow: 850/2004/EC , 79/117/EEC , 689/2008/EC

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Abbreviations and acronyms**

ADN: Accord européen relatif au transport international des marchandises Dangereuses par voie de Navigation

(European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)

ADR: Accord européen sur le transport des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

CAS: Chemical Abstracts Service

CLP: Classification, Labeling and Packaging

DMEL: Derived Minimal Effect level

DNEL: Derived No Effect Level

EC50: Effective concentration, 50%

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations (DRG) for the air transport (IATA)

ICAO: International Civil Aviation Organization

IC50: Inhibitory concentration, 50%

IMDG: International Maritime Code for Dangerous Goods

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

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NOEC: No Observed Effect Concentration

OECD: Organisation for Economic Co-operation and Development

PBT: persistent, bioaccumulative and toxic

vPvB: very persistent and very bioaccumulative

PNEC: Predicted No Effect Concentration

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

RID: Règlement concernant le transport international ferroviaire de marchandises dangereuses (Regulations Concerning the International Carriage of Dangerous Goods by Rail)

VOC: Volatile organic compound

Acute Tox. 2: Acute toxicity, Category 2

Acute Tox. 3: Acute toxicity, Category 3

Acute Tox. 4: Acute toxicity, Category 4

Aquatic Chronic 1: Long-term aquatic hazard, Category 1

Aquatic Chronic 3: Long-term aquatic hazard, Category 3

Eye Dam. 1: Serious eye damage/eye irritation, Category 1

Eye Irrit. 2: Serious eye damage/eye irritation, Category 2

Skin Corr. 1B: Skin corrosion/irritation, Category 1B

Skin Sens. 1: Skin sensitization, Category 1

Skin Sens. 1B: Skin sensitization, Category 1B

Classification for mixtures and used evaluation method according to GB CLP Regulation

| Classification | Classification procedure |
|--------------------|--------------------------|
| Skin Sens. 1; H317 | Calculation method |

Relevant H and EUH statements (number and full text)

| | |
|------|--|
| H300 | Fatal if swallowed. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H412 | Harmful to aquatic life with long lasting effects. |

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)

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SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

| CAS No | Chemical name | Quantity |
|---------|---|------------------|
| | EC No | |
| | Index No | |
| | REACH No | |
| | Classification (GB CLP Regulation) | |
| 94-36-0 | Dibenzoyl peroxide | 5 - < 10 % |
| | 202-327-6 | 617-008-00-0 |
| | | 01-2119511472-50 |
| | Org. Perox. B, Eye Irrit. 2, Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 1; H241 H319 H317 H400 H410 | |

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|---------|-----------|---|------------|
| | | Specific Conc. Limits, M-factors and ATE | |
| 94-36-0 | 202-327-6 | Dibenzoyl peroxide | 5 - < 10 % |
| | | oral: LD50 = > 5000 mg/kg M acute; H400: M=10 M chron.; H410: M=10 | |

Further Information

The product has been tested for aquatic toxicity. The tests show no need for classification of the product as toxic and harmful to aquatic life. Test reports are available.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Take off immediately all contaminated clothing and wash it before reuse. Get medical advice/attention if you feel unwell.

After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion

Do NOT induce vomiting. Rinse mouth thoroughly with water. Medical treatment necessary.

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

May cause an allergic skin reaction.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Foam
Extinguishing powder
Water spray jet

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Carbon dioxide (CO₂)**Unsuitable extinguishing media**

Full water jet

5.2. Special hazards arising from the substance or mixturePyrolysis products, toxic
Carbon monoxide**5.3. Advice for firefighters**

In case of fire and/or explosion do not breathe fumes.

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.

Do not allow entering drains or surface water.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Provide adequate ventilation. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up**Other information**

Collect spillage. Take up mechanically, placing in appropriate containers for disposal. Suitable material for taking up: Sand

Treat the recovered material as prescribed in the section on waste disposal.

Retain contaminated washing water and dispose it.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Use only outdoors or in a well-ventilated area.

Wear personal protection equipment (refer to section 8).

Avoid contact with skin, eyes and clothes.

When using do not eat, drink or smoke.

Wash hands thoroughly after handling.

Take off contaminated clothing and wash it before reuse.

Advice on general occupational hygiene

Take off contaminated clothing and wash it before reuse. Draw up and observe skin protection programme.

Wash hands thoroughly after handling. When using do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Store in a place accessible by authorized persons only. Keep only in the original container in a cool, well-ventilated place.

Hints on joint storage

Do not store together with: Oxidising agent, strong

Do not use for products which come into contact with the food stuffs.

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Further information on storage conditions

storage temperature: 5 - 25°C

7.3. Specific end use(s)

see section 1.2

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limits (EH40)**

| CAS No | Substance | ppm | mg/m ³ | fibres/ml | Category | Origin |
|---------|--------------------|-----|-------------------|-----------|-----------|--------|
| 94-36-0 | Dibenzoyl peroxide | - | 5 | | TWA (8 h) | WEL |
| 56-81-5 | Glycerol, mist | - | 10 | | TWA (8 h) | WEL |

DNEL/DMEL values

| CAS No | Substance | Exposure route | Effect | Value |
|--------------------------|--------------------|----------------|----------|----------------------|
| 94-36-0 | Dibenzoyl peroxide | | | |
| Consumer DNEL, long-term | | oral | systemic | 2 mg/kg bw/day |
| Worker DNEL, long-term | | dermal | systemic | 13,3 mg/kg bw/day |
| Worker DNEL, long-term | | inhalation | systemic | 39 mg/m ³ |

PNEC values

| CAS No | Substance | Value |
|---------------------------|--------------------|---------------|
| Environmental compartment | | |
| 94-36-0 | Dibenzoyl peroxide | |
| Freshwater | | 0,00002 mg/l |
| Marine water | | 0,000002 mg/l |
| Freshwater sediment | | 0,013 mg/kg |
| Marine sediment | | 0,001 mg/kg |

Additional advice on limit values

This mixture contains quartz (inorganic filler) which is firmly bound in the pasty component, and thus not freely available during use, so that a risk of dust inhalation is excluded. Exposure limit values for respirable dusts are not relevant for this product.

8.2. Exposure controls**Appropriate engineering controls**

Provide adequate ventilation. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear eye/face protection.

Hand protection

Disposable gloves

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Recommended material: NBR (Nitrile rubber)
Breakthrough time: > 480 min
Thickness of the glove material: > 0,2 mm
DIN-/EN-Norms EN 374

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Respiratory protection with combination filter A1P2 (organic gases/vapors and particles) recommended.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

| | |
|------------------|-------------------|
| Physical state: | solid (pasty) |
| Colour: | black |
| Odour: | characteristic |
| Odour threshold: | No data available |

Changes in the physical state

| | |
|---|----------------|
| Melting point/freezing point: | not determined |
| Boiling point or initial boiling point and boiling range: | not determined |
| Flash point: | not applicable |

Flammability

| | |
|-------------------------|----------------|
| Solid/liquid: | not determined |
| Gas: | not applicable |
| Lower explosion limits: | not determined |
| Upper explosion limits: | not determined |

Self-ignition temperature

| | |
|----------------------------|--|
| Solid: | not determined |
| Gas: | not applicable |
| Decomposition temperature: | not determined |
| pH-Value: | not determined |
| Water solubility: | The study does not need to be conducted because the substance is known to be insoluble in water. |

Solubility in other solvents

| | |
|--|------------------------|
| not determined | |
| Partition coefficient n-octanol/water: | not determined |
| Vapour pressure: | not determined |
| Density: | 1,77 g/cm ³ |
| Relative vapour density: | not determined |

9.2. Other information**Information with regard to physical hazard classes**

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Oxidizing properties
Not oxidising.

Other safety characteristics

Solid content: not determined
Evaporation rate: not determined

SECTION 10: Stability and reactivity**10.1. Reactivity**

see section 10.3

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Violent reaction with: Oxidising agent

10.4. Conditions to avoid

see section 7.2

10.5. Incompatible materials

Oxidising agent, strong

10.6. Hazardous decomposition products

Benzoic acid
Benzene
Biphenyl

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

Based on available data, the classification criteria are not met.

| CAS No | Chemical name | | | | |
|---------|--------------------|-------------------|---------|--------|--------|
| | Exposure route | Dose | Species | Source | Method |
| 94-36-0 | Dibenzoyl peroxide | | | | |
| | oral | LD50 > 5000 mg/kg | Rat | | |

Irritation and corrosivity

Based on available data, the classification criteria are not met.

Sensitising effects

May cause an allergic skin reaction. (Dibenzoyl peroxide)

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Further information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

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SECTION 12: Ecological information**12.1. Toxicity**

The product is not: Ecotoxic.

OECD 201 (Desmodesmus subspicatus)

IC10: (0 - 72h) = 60 mg/l

IC50: (0 - 72h) = > 500 mg/l

OECD 202 (Daphnia magna (Big water flea))

EC0/NOEC (48h) = 100 mg/l

EC50 (48h) = > 500 mg/l

EC100 (48h) = >> 500 mg/l

OECD 203 (Danio rerio (zebrafish))

LC0/NOEC = 500 mg/l

LC50 = > 500 mg/l

LC100 = >>500 mg/l

| CAS No | Chemical name | | | | | |
|---------|--------------------------|---------------|-----------|---------|--|----------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 94-36-0 | Dibenzoyl peroxide | | | | | |
| | Acute fish toxicity | LC50 mg/l | 0,0602 | 96 h | Oncorhynchus mykiss (Rainbow trout) | OECD 203 |
| | Acute algae toxicity | ErC50 mg/l | 0,0711 | 72 h | Pseudokirchneriella subcapitata | OECD 201 |
| | Acute crustacea toxicity | EC50 mg/l | 0,11 | 48 h | Daphnia magna (Big water flea) | OECD 202 |
| | Algae toxicity | NOEC mg/l | 0,02 | 3 d | Pseudokirchneriella subcapitata | OECD 201 |
| | Crustacea toxicity | NOEC mg/l | 0,001 | 21 d | Daphnia magna (Big water flea) | OECD 211 |
| | Acute bacteria toxicity | (EC50 | 35 mg/l) | 0,5 h | | OECD 209 |

12.2. Persistence and degradability

The product has not been tested.

| CAS No | Chemical name | | | |
|---------|---|-------|----|--------|
| | Method | Value | d | Source |
| | Evaluation | | | |
| 94-36-0 | Dibenzoyl peroxide | | | |
| | OECD 301D | 71% | 28 | |
| | Readily biodegradable (according to OECD criteria). | | | |

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|---------|--------------------|---------|
| 94-36-0 | Dibenzoyl peroxide | 3,2 |

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

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The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.
The product has not been tested.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Subsequent waste code numbers of the European Waste Catalogue are considered as recommendations.
Dispose of waste according to applicable legislation. Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

List of Wastes Code - residues/unused products

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

List of Wastes Code - used product

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

SECTION 14: Transport information**Land transport (ADR/RID)**

| | |
|--|--|
| 14.1. UN number or ID number: | No dangerous good in sense of this transport regulation. |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. |

Inland waterways transport (ADN)

| | |
|--|--|
| 14.1. UN number or ID number: | No dangerous good in sense of this transport regulation. |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. |

Marine transport (IMDG)

| | |
|--|--|
| 14.1. UN number or ID number: | No dangerous good in sense of this transport regulation. |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. |

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Air transport (ICAO-TI/IATA-DGR)

| | |
|--|--|
| 14.1. UN number or ID number: | No dangerous good in sense of this transport regulation. |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. |

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No information available.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 75

Information according to 2012/18/EU Not subject to 2012/18/EU (SEVESO III)
(SEVESO III):**Additional information**

VOC content: 0,9 % (DIN EN ISO 11890-2)

To follow: 850/2004/EC , 79/117/EEC , 689/2008/EC

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Abbreviations and acronyms**

ADN: Accord européen relatif au transport international des marchandises Dangereuses par voie de Navigation

(European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)

ADR: Accord européen sur le transport des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

CAS: Chemical Abstracts Service

CLP: Classification, Labeling and Packaging

DMEL: Derived Minimal Effect level

DNEL: Derived No Effect Level

EC50: Effective concentration, 50%

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations (DRG) for the air transport (IATA)

ICAO: International Civil Aviation Organization

IC50: Inhibitory concentration, 50%

IMDG: International Maritime Code for Dangerous Goods

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

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NOEC: No Observed Effect Concentration

OECD: Organisation for Economic Co-operation and Development

PBT: persistent, bioaccumulative and toxic

vPvB: very persistent and very bioaccumulative

PNEC: Predicted No Effect Concentration

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

RID: Règlement concernant le transport international ferroviaire de marchandises dangereuses (Regulations Concerning the International Carriage of Dangerous Goods by Rail)

VOC: Volatile organic compound

Aquatic Chronic 3: Long-term aquatic hazard, Category 3

Acute Tox. 2: Acute toxicity, Category 2

Skin Irrit. 2: Serious eye damage/eye irritation, Category 2

Skin Sens. 1: Skin sensitization, Category 1

STOT SE 3: Specific target organ toxicity (single exposure), Category 3

Classification for mixtures and used evaluation method according to GB CLP Regulation

| | |
|--------------------|--------------------------|
| Classification | Classification procedure |
| Skin Sens. 1; H317 | Calculation method |

Relevant H and EUH statements (number and full text)

| | |
|------|---|
| H241 | Heating may cause a fire or explosion. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)