

Safety Data Sheet
PRIMER P3 PARTE B

Safety Data Sheet dated: 09/09/2020 - version 3



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

1.1. Product identifier

Mixture identification:

Trade name: PRIMER P3 PARTE B

Trade code: 9001876

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

Recommended use: Solvent free protective paint

Uses advised against: Data not available

1.3. Details of the supplier of the safety data sheet

Company: MAPEI S.p.A. - Via Cafiero, 22 - 20158 Milano

Tel: +39-02-376731

Fax: +39-02-37673.214

Responsible: sicurezza@mapei.it

1.4. Emergency telephone number

Poison Centre - Ospedale di Niguarda - Milan - Tel. +39/02/66101029

MAPEI S.p.A. - Tel. +(39)02376731 - (office hours)

SECTION 2: Hazards identification



2.1. Classification of the substance or mixture

Regulation (EC) n. 1272/2008 (CLP)

| | |
|---------------|--|
| Acute Tox. 4 | Harmful if inhaled. |
| Skin Irrit. 2 | Causes skin irritation. |
| Eye Irrit. 2 | Causes serious eye irritation. |
| Resp. Sens. 1 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| Skin Sens. 1 | May cause an allergic skin reaction. |
| Carc. 2 | Suspected of causing cancer. |
| STOT SE 3 | May cause respiratory irritation. |
| STOT RE 2 | May cause damage to organs through prolonged or repeated exposure. |

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Regulation (EC) n. 1272/2008 (CLP)

Pictograms and Signal Words



Danger

Hazard statements:

| | |
|------|--|
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |
| H351 | Suspected of causing cancer. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |

Precautionary statements:

| | |
|------|---|
| P201 | Obtain special instructions before use. |
|------|---|

| | |
|-----------|--|
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P284 | [In case of inadequate ventilation] wear respiratory protection. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |
| P312 | Call a POISON CENTER if you feel unwell. |

Special Provisions:

| | |
|--------|--|
| EUH208 | Contains 2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate. May produce an allergic reaction. |
| EUH204 | Contains isocyanates. May produce an allergic reaction. |

Contains:

diphenylmethanediisocyanate isomers and homologues

4,4'-methylenediphenyl diisocyanate;
diphenylmethane-4,4'-diisocyanate

o-(p-isocyanatobenzyl)phenyl isocyanate;
diphenylmethane-2,4'-diisocyanate

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

No PBT/vPvB Ingredients are present

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: PRIMER P3 PARTE B

Hazardous components within the meaning of the CLP regulation and related classification:

| Quantity | Name | Ident. Numb. | Classification | Registration Number |
|--------------|--|---|---|-----------------------|
| ≥75 - <100 % | diphenylmethanediisocyanate isomers and homologues | CAS:9016-87-9 EC:618-498-9 Index:615-005-00-9 | Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335; Skin Irrit. 2, H315; Resp. Sens. 1, H334; Skin Sens. 1, H317; STOT RE 2, H373; Carc. 2, H351 | |
| ≥10 - <20 % | 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate | CAS:101-68-8 EC:202-966-0 Index:615-005-00-9 | Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335; Skin Irrit. 2, H315; Resp. Sens. 1, H334; Skin Sens. 1, H317; STOT RE 2, H373; Carc. 2, H351 | 01-2119457014-47 |
| ≥5 - <10 % | o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate | CAS:5873-54-1 EC:227-534-9 Index:615-005-00-9 | Carc. 2, H351; STOT RE 2, H373; Eye Irrit. 2, H319; STOT SE 3, H335; Skin Irrit. 2, H315; Resp. Sens. 1, H334; Skin Sens. 1, H317; Acute Tox. 4, H332 | 01-2119480143-45-0000 |
| ≥0.49 - <1 % | 2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate | CAS:2536-05-2 EC:219-799-4 Index:615-005-00-9 | Carc. 2, H351; STOT RE 2, H373; Eye Irrit. 2, H319; STOT SE 3, H335; Skin Irrit. 2, H315; Resp. Sens. 1, H334; Skin Sens. 1, H317; Acute Tox. 4, H332 | 01-2119927323-43-XXXX |

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose of safely.
After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

If breathing is irregular or stopped, administer artificial respiration.

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

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

Eye irritation

Eye damages

Skin Irritation

Erythema

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

(see paragraph 4.1)

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

5.3. Advice for firefighters

Use suitable breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

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

Provide adequate ventilation.

Use appropriate respiratory protection.

6.2. Environmental precautions

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

Limit leakages with earth or sand.

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Retain contaminated washing water and dispose it.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Use localized ventilation system.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

List of components with OEL value

| Component | OEL Type | Country | Ceiling | Long Term mg/m3 | Long Term ppm | Short Term mg/m3 | Short Term ppm | Behaviour Note |
|--|----------------|----------|---------|-----------------|---------------|------------------|----------------|---|
| diphenylmethanediisocyanate isomers and homologues | ACGIH | NNN | | | 0.05 | | | |
| | SUVA | NNN | | 0.02 | | 0.02 | | |
| | DFG | GERMANY | C | | | 0.05 | | |
| | National | GERMANY | | 0.05 | | | | |
| 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate | National | SLOVENIA | | 0.05 | | 0.05 | | |
| | National | NORWAY | | 0.050 | 0.005 | | | A 4 |
| | SUVA | NNN | | 0.020 | | 0.020 | | |
| | National | SWEDEN | C | 0.030 | 0.002 | 0.050 | 0.005 | SWEDEN, Ceiling limit value |
| | NDS | NNN | | 0.030 | | | | |
| | NDSP | NNN | | 0.090 | | | | |
| | ACGIH | NNN | | | 0.005 | | | Resp sens |
| | National | POLAND | | 0.030 | | 0.090 | | |
| | National | AUSTRIA | | 0.050 | 0.005 | 0.100 | 0.010 | |
| | DFG | GERMANY | C | | | 0.050 | | |
| | ACGIH | NNN | | | 0.005 | | | respiratory sensitization (listed under Methylene bisphenyl isocyanate (MDI)) |
| | National | SWEDEN | | 0.030 | 0.002 | | | |
| | National | FRANCE | | 0.100 | 0.010 | 0.200 | 0.020 | |
| | National | SPAIN | | 0.052 | 0.005 | | | |
| | National | DENMARK | | 0.050 | 0.005 | | | |
| | National | GERMANY | | 0.050 | | | | |
| | National | PORTUGAL | | | 0.005 | | | |
| | National | BELGIUM | | 0.052 | 0.005 | | | |
| | NDS | POLAND | | 0.030 | | | | |
| | NDSch | POLAND | | | | 0.090 | | |
| National | CZECH REPUBLIC | | 0.050 | | | | | |
| National | HUNGARY | | 0.05 | | 0.050 | | | |
| Malaysian OEL | MALAYSIA | | 0.051 | 0.005 | | | | |
| National | ESTONIA | | 0.050 | 0.005 | 0.100 | 0.010 | | |
| National | CZECH REPUBLIC | C | | | 0.100 | | | |
| National | SLOVAKIA | | 0.002 | | | | | |
| National | SLOVAKIA | | 0.030 | | | | | |
| National | SLOVENIA | | 0.050 | | 0.050 | | | |

| | | | | | |
|--|--------------------|-------|-------|-------|-------|
| | National ROMANIA | | | 0.150 | |
| | National LITHUANIA | 0.050 | 0.005 | | |
| | National LITHUANIA | C | | 0.100 | 0.010 |
| | ACGIH | | 0.005 | | |
| | National NORWAY | 0.05 | 0.005 | | 0.01 |
| | National SLOVENIA | 0.05 | 0.005 | 0.05 | 0.005 |
| o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate | NDS NNN | 0.03 | | | |
| | NDSCh NNN | 0.09 | | | |
| | National GERMANY | 0.05 | | | |
| | NDS POLAND | 0.03 | | | |
| | NDSCh POLAND | | | 0.09 | |
| | National SLOVENIA | 0.05 | | 0.05 | |
| 2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate | ACGIH NNN | 0.051 | | | |
| | National GERMANY | 0.05 | | | |
| | NDS POLAND | 0.03 | | | |
| | NDSCh POLAND | | | 0.09 | |
| | National SLOVENIA | 0.05 | | 0.05 | |

respiratory sensitization (listed under Methylene bisphenyl isocyanate (MDI))

Predicted No Effect Concentration (PNEC) values

| Component | CAS-No. | PNEC Limit | Exposure Route | Exposure Frequency | Remark |
|--|-----------|----------------|-------------------------------------|--------------------|--------|
| 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate | 101-68-8 | 1 mg/l | Fresh Water | | |
| | | 0.1 mg/l | Marine water | | |
| | | 1 mg/kg | Soil | | |
| | | 1 mg/l | Microorganisms in sewage treatments | | |
| | | 10.000000 mg/l | Intermittent release | | |
| o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate | 5873-54-1 | 1 mg/l | Fresh Water | | |
| | | 0.1 mg/l | Marine water | | |
| | | 1 mg/kg | Soil | | |
| | | 1 mg/l | Microorganisms in sewage treatments | | |
| | | | | | |
| 2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate | 2536-05-2 | 1 mg/l | Fresh Water | | |
| | | 0.1 mg/kg | Marine water | | |
| | | 1 mg/l | Soil | | |
| | | 1 mg/l | Microorganisms in sewage treatments | | |
| | | | | | |

Derived No Effect Level. (DNEL)

| Component | CAS-No. | Worker Industrial | Worker Professional | Consumer | Exposure Route | Exposure Frequency | Remark | |
|--|-----------|--|---------------------|----------|------------------|------------------------------|------------------------------|------------------------------|
| 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate | 101-68-8 | 50 | | | Human Dermal | Short Term, systemic effects | | |
| | | 0.1 | | | Human Inhalation | Short Term, systemic effects | | |
| | | 0.1 | | | Human Inhalation | Short Term, local effects | | |
| | | 0.05 | | | Human Inhalation | Long Term, systemic effects | | |
| | | 0.05 | | | Human Inhalation | Long Term, local effects | | |
| | | | 25 | | | Human Dermal | Short Term, systemic effects | |
| | | | 0.05 | | | Human Inhalation | Short Term, systemic effects | |
| | | | 20 | | | Human Oral | Short Term, systemic effects | |
| | | | 0.05 | | | Human Inhalation | Short Term, local effects | |
| | | | 0.025 | | | Human Inhalation | Long Term, systemic effects | |
| | | | 0.025 | | | Human Inhalation | Long Term, local effects | |
| | | | 28.7 | 17.2 | | Human Dermal | Short Term, local effects | |
| | | o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate | 5873-54-1 | 50 | 25 | | Human Dermal | Short Term, systemic effects |
| 0.1 | 0.05 | | | | Human Inhalation | Short Term, systemic effects | | |
| 28.7 | 17.2 | | | | Human Dermal | Short Term, local effects | | |
| 0.1 | 0.05 | | | | Human Inhalation | Short Term, local effects | | |
| 0.05 | 0.025 | | | | Human Inhalation | Long Term, systemic effects | | |
| 0.05 | 0.025 | | | | Human Inhalation | Long Term, local effects | | |
| | 20 | | | | | Human Oral | Short Term, systemic effects | |
| 2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate | 2536-05-2 | 50 | 25 | | Human Dermal | Short Term, systemic effects | | |
| | | 0.1 | 0.05 | | Human Inhalation | Short Term, systemic effects | | |
| | | 28.7 | 17.2 | | Human Dermal | Short Term, local effects | | |
| | | 0.1 | 0.05 | | Human Inhalation | Short Term, local effects | | |

| | | | |
|---------------------------|----------------------------|------------------|-----------------------------|
| 0.05 mg/m ³ | 0.025 mg/m ³ | Human Inhalation | Long Term, systemic effects |
| 0.05 mg/m ³ | 0.025 mg/m ³ | Human Inhalation | Long Term, local effects |
| | 20 mg/kg | Human Oral | Long Term, systemic effects |

8.2. Exposure controls

Eye protection:

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

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Suitable materials for safety gloves; EN 374:

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

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

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

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

Neoprene gloves are suggested (0,5 mm) not recommended gloves: not waterproof gloves

Respiratory protection:

Personal Protective Equipment should comply with relevant CE standards (as EN 374 for gloves and EN 166 for goggles), correctly maintained and stored. Consult the supplier to check the suitability of equipment against specific chemicals and for user information.

In case of insufficient ventilation use mask with ABEKP filters (EN 14387).

Use adequate protective respiratory equipment.

Hygienic and Technical measures

N.A.

Appropriate engineering controls:

N.A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance and colour: Liquid light brown

Odour: Characteristic

Odour threshold: N.A.

pH: N.A.

Melting point / freezing point: N.A.

Initial boiling point and boiling range: 250 °C (482 °F)

Flash point: N.A.

Evaporation rate: N.A.

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

Vapour density: N.A.

Vapour pressure: N.A.

Relative density: N.A.

Solubility in water: immiscible

Partition coefficient (n-octanol/water): N.A.

Auto-ignition temperature: N.A.

Decomposition temperature: N.A.

Viscosity: 110.00 cPs

Explosive properties: N.A.

Oxidizing properties: N.A.

Solid/gas flammability: N.A.

9.2. Other information

No additional information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the mixture:

There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

Toxicological information on main components of the mixture:

| | | | |
|--|--------------------------------------|---|------|
| diphenylmethanediisocyanate isomers and homologues | a) acute toxicity | LD50 Oral Rat > 10000 mg/kg | |
| | | LD50 Skin Rabbit > 9400 mg/kg | |
| | | LC50 Inhalation Dust Rat = 0.31 mg/l 4h | |
| | | LD50 Skin Rabbit > 9.4 g/kg | |
| | | LC50 Inhalation Rat = 490 mg/m3 4h | |
| | | LD50 Oral Rat = 49 g/kg | |
| | g) reproductive toxicity | NOAEL Inhalation Rat = 12 mg/m3 | |
| 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate | a) acute toxicity | LD50 Oral Rat > 2000 mg/kg | |
| | | LD50 Skin Rabbit > 9400 mg/kg | |
| | | LC50 Inhalation Dust Rat = 0.368 mg/l 4h | |
| | | LC50 Inhalation Rat = 369 mg/m3 4h | |
| | | LD50 Oral Rat = 31600 mg/kg | |
| | b) skin corrosion/irritation | Skin Irritant Skin Rabbit Positive | |
| | d) respiratory or skin sensitisation | Skin Sensitization Skin Mouse Positive | |
| | | Respiratory Sensitization Inhalation Positive | |
| | f) carcinogenicity | Carcinogenicity Inhalation Rat = 6 mg/m3 | 2 y |
| | g) reproductive toxicity | NOAEL Inhalation Rat = 12 mg/m3 | 20 d |
| o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate | a) acute toxicity | LD50 Skin Rabbit > 9400 mg/kg | |
| | | LD50 Oral Rat > 2000 mg/kg | |
| | e) germ cell mutagenicity | NOAEL Inhalation Rat = 12 mg/m3 | |
| 2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate | a) acute toxicity | LD50 Oral Rat > 2000 mg/kg | |
| | | LC50 Inhalation Dust Rat = 0.527 mg/l 4h | |
| | | LD50 Skin Rabbit > 9400 mg/kg | |
| | e) germ cell mutagenicity | NOAEL Inhalation Rat = 12 mg/m3 | |

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.

a) acute toxicity

- b) skin corrosion/irritation
 - c) serious eye damage/irritation
 - d) respiratory or skin sensitisation
 - e) germ cell mutagenicity
 - f) carcinogenicity
 - g) reproductive toxicity
 - h) STOT-single exposure
- Toxicological kinetics, metabolism and distribution information
- i) STOT-repeated exposure
 - j) aspiration hazard

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of components with eco-toxicological properties

| Component | Ident. Numb. | Ecotox Infos |
|--|---|---|
| diphenylmethanediisocyanate isomers and homologues | CAS: 9016-87-9 - EINECS: 615-005-00-9 - INDEX: 618-498-9 | a) Aquatic acute toxicity : LC50 Fish > 1000 mg/L 96 a) Aquatic acute toxicity : EC50 Daphnia > 1000 mg/L 24 b) Aquatic chronic toxicity : NOEC Daphnia > 10 mg/L - 21 d a) Aquatic acute toxicity : EC50 Algae > 1640 mg/L 72 c) Bacteria toxicity : EC50 > 100 mg/L 3 d) Terrestrial toxicity : NOEC > 1000 mg/kg - 14 d e) Plant toxicity : NOEC > 1000 mg/kg - 14 d |
| 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate | CAS: 101-68-8 - EINECS: 615-005-00-9 - INDEX: 202-966-0 | a) Aquatic acute toxicity : LC50 Fish > 1000 mg/L 96 a) Aquatic acute toxicity : EC50 Daphnia > 1000 mg/L 24 b) Aquatic chronic toxicity : NOEC Daphnia > 10 mg/L - 21 d a) Aquatic acute toxicity : EC50 Algae > 1640 mg/L 72 c) Bacteria toxicity : EC50 > 100 mg/L 3 d) Terrestrial toxicity : NOEC > 1000 mg/kg - 14 d e) Plant toxicity : NOEC > 1000 mg/kg - 14 d |
| o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate | CAS: 5873-54-1 - EINECS: 615-005-00-9 - INDEX: 227-534-9 | a) Aquatic acute toxicity : LC50 Fish > 1000 mg/L 96 a) Aquatic acute toxicity : EC50 Daphnia > 1000 mg/L 24 b) Aquatic chronic toxicity : NOEC Daphnia > 10 mg/L - 21 d a) Aquatic acute toxicity : EC50 Algae > 1640 mg/L 72 c) Bacteria toxicity : EC50 > 100 mg/L 3 d) Terrestrial toxicity : NOEC > 1000 mg/kg - 14 d e) Plant toxicity : NOEC > 1000 mg/kg - 14 d |
| 2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate | CAS: 2536-05-2 - EINECS: 615-005-00-9 - INDEX: 219-799-4 | a) Aquatic acute toxicity : LC50 Fish > 1000 mg/L 96 a) Aquatic acute toxicity : EC50 Daphnia > 1000 mg/L 24 b) Aquatic chronic toxicity : NOEC Daphnia > 10 mg/L - 21 d a) Aquatic acute toxicity : EC50 Algae > 1640 mg/L 72 c) Bacteria toxicity : EC50 > 100 mg/L 3 |

- e) Plant toxicity : NOEC > 1000 mg/kg - 14 d
d) Terrestrial toxicity : NOEC > 1000 mg/kg - 14 d

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT/vPvB Ingredients are present

12.6. Other adverse effects

N.A.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

A waste code (EWC) according to European List of Waste (LoW) cannot be specified, due to dependence on the usage. Contact and send to an authorized waste disposal service.

Methods of disposal:

Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.

Do not dispose of waste into sewers.

Hazardous waste: Yes

Disposal considerations:

Do not allow to enter drains or watercourses.

Dispose of product according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. Do not re-use empty containers.

SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

14.1. UN number

N.A.

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es)

N.A.

14.4. Packing group

N.A.

14.5. Environmental hazards

N.A.

14.6. Special precautions for user

N.A.

Road and Rail (ADR-RID) :

N.A.

Air (IATA) :

N.A.

Sea (IMDG) :

N.A.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

N.A.

SECTION 15: Regulatory information

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

VOC (2004/42/EC) : N.A. g/l

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EU) 2015/830

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Provisions related to directive EU 2012/18 (Seveso III):

N.A.

German Water Hazard Class.

N.A.

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3

Restrictions related to the substances contained: 56

SVHC Substances:

No data available

Produktregisteret Norge: 614669

MAL-kode: 00-3; A+B:2-3 (1993) Produktet indeholder lavtkogende væsker, der adsorberes dårligt på kulfiltre. Anvend derfor friskluftforsynet åndedrætsværn.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

| Code | Description |
|------|---|
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |
| H351 | Suspected of causing cancer. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H373 | May cause damage to organs through prolonged or repeated exposure if inhaled. |

| Code | Hazard class and hazard category | Description |
|-------------|----------------------------------|--|
| 3.1/4/Inhal | Acute Tox. 4 | Acute toxicity (inhalation), Category 4 |
| 3.2/2 | Skin Irrit. 2 | Skin irritation, Category 2 |
| 3.3/2 | Eye Irrit. 2 | Eye irritation, Category 2 |
| 3.4.1/1 | Resp. Sens. 1 | Respiratory Sensitisation, Category 1 |
| 3.4.2/1 | Skin Sens. 1 | Skin Sensitisation, Category 1 |
| 3.6/2 | Carc. 2 | Carcinogenicity, Category 2 |
| 3.8/3 | STOT SE 3 | Specific target organ toxicity — single exposure, Category 3 |

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

| Classification according to Regulation (EC) Nr. 1272/2008 | Classification procedure |
|--|---------------------------------|
| 3.1/4/Inhal | Calculation method |
| 3.2/2 | Calculation method |
| 3.3/2 | Calculation method |
| 3.4.1/1 | Calculation method |
| 3.4.2/1 | Calculation method |
| 3.6/2 | Calculation method |
| 3.8/3 | Calculation method |
| 3.9/2 | Calculation method |

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CAV: Poison Center

CE: European Community

CLP: Classification, Labeling, Packaging.

CMR: Carcinogenic, Mutagenic and Reprotoxic

COD: Chemical Oxygen Demand

COV: Volatile Organic Compound

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DMEL: Derived Minimal Effect Level

DNEL: Derived No Effect Level.

DPD: Dangerous Preparations Directive

DSD: Dangerous Substances Directive

EC50: Half Maximal Effective Concentration

ECHA: European Chemicals Agency

EINECS: European Inventory of Existing Commercial Chemical Substances.

ES: Exposure Scenario

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

IC50: half maximal inhibitory concentration

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

IMDG: International Maritime Code for Dangerous Goods.

INCI: International Nomenclature of Cosmetic Ingredients.

IRCCS: Scientific Institute for Research, Hospitalization and Health Care

KSt: Explosion coefficient.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.
LDLo: Leathal Dose Low
N.A.: Not Applicable
N/A: Not Applicable
N/D: Not defined/ Not available
NA: Not available
NIOSH: National Institute for Occupational Safety and Health
NOAEL: No Observed Adverse Effect Level
OSHA: Occupational Safety and Health Administration.
PBT: Persistent, Bioaccumulative and Toxic
PGK: Packaging Instruction
PNEC: Predicted No Effect Concentration.
PSG: Passengers
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
vPvB: Very Persistent, Very Bioaccumulative.
WGK: German Water Hazard Class.

Paragraphs modified from the previous revision:

- 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING
- 2. HAZARDS IDENTIFICATION
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 4. FIRST AID MEASURES
- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 13. DISPOSAL CONSIDERATIONS
- 14. TRANSPORT INFORMATION
- 15. REGULATORY INFORMATION
- 16. OTHER INFORMATION