

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

1.1. Product identifier

Mixture identification: Trade name: UNIPLAN ECO TDR Trade code: 9003537

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

Recommended use: Ready prepared cement mortar

Uses advised against: Data not available

1.3. Details of the supplier of the safety data sheet

Company: MAPEI AS - Vallsetvegen, 6 - 2120 Sagstua - Norway Responsable: sicurezza@mapei.it

1.4. Emergency telephone number

Giftinformasjonen – phone number: +47 22591300 MAPEI AS - phone: +47-62972000 fax: +47-62972099 www.mapei.no (office hours)

SECTION 2: Hazards identification



2.1. Classification of the substance or mixture

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

Eye Dam. 1 Causes serious eye damage.

Skin Sens. 1B May cause an allergic skin reaction.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

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

Pictograms and Signal Words



Hazard statements:

- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.

Precautionary statements:

| P261 | Avoid breathing dust. |
|--------------------------------|---|
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a POISON CENTER. |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |
| P501 | Dispose of contents/container in accordance with applicable regulations. |
| P310 P333+P313 P362+P364 | to do. Continue rinsing. Immediately call a POISON CENTER. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. |

Contains:

Portland cement, Cr(VI) < 2 ppm

Special provisions according to Annex XVII of REACH and subsequent amendments: None

No PBT/vPvB Ingredients are present

Other Hazards: No other hazards

Prolonged exposition and/or intensive inhalation of respirable free crystalline silica (average diameter less than 10 micron in accordance with ACGIH) can cause pulmonary fibrosis commonly referred to as silicosis. This preparation contains cement. Contact between cement and body fluids (e.g. sweat and eye fluids) may cause irritation or burns.

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: UNIPLAN ECO TDR

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

| Quantity | Name | Ident. Numb. | Classification | Registration Number |
|-------------------|---------------------------------------|--------------------------------|---|----------------------------|
| ≥25 - <50 % | free crystalline silica (Ø >10 $\mu)$ | CAS:14808-60-7 EC:238-878-4 | | |
| ≥2.5 - <5 % | Portland cement, Cr(VI) < 2 ppm | CAS:65997-15-1 EC:266-043-4 | Skin Irrit. 2, H315; Skin Sens. 1B, H317; Eye Dam. 1, H318; STOT SE 3, H335 | |
| ≥0.05 - <0.1 % | free crystalline silica (Ø <10 $\mu)$ | CAS:14808-60-7 EC:238-878-4 | STOT RE 2, H373 | |
| < 0,00015 % | vinyl acetate | CAS:108-05-4 EC:203-545-4 | Flam. Liq. 2, H225; Acute Tox. 4, H332; STOT SE 3, H335; Carc. 2, H351; Aquatic Chronic 3, H412 | 01-2119471301-50-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.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose of safely.

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 opthalmologist 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:

Remove casualty to fresh air and keep warm and at rest.

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

Eye irritation

Eye damages

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Take up mechanically and dispose of according to local/state/federal regulations

Scoop into containers and seal for disposal.

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.

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 3 ppm | Short Term mg/m3 | Short Term 3 ppm | Behaviour | Note |
|--|-------------|-------------|---------|-----------------------|-----------------------|------------------------|------------------------|-----------|---|
| free crystalline silica (Ø >10 μ) | NDS | POLAND | | 0,300 | | ,, | | | frakcja respirabilna |
| | National | DENMARK | | 0,3 | | | | | DENMARK, inhalable aerosol inhalable aerosol |
| | National | DENMARK | | 0,100 | | | | | DENMARK, respirable aerosol |
| | SUVA | GERMANY | | 0,150 | | | | | 50 μg/m³ (Partikel Durchmesser < 12 μm) - TRGS 906 |
| | National | SWITZERLAND | | 0,15 | | | | | A |
| | ACGIH | NNN | | 0,025 | | | | | (R), A2 - Pulm fibrosis, lung cancer |
| | National | NORWAY | | 0,300 | | | | | К 7 |
| Portland cement, Cr(VI) < 2 ppm | National | FINLAND | | 1 | | | | | FINLAND, respirabel fraktion |
| | NDS | POLAND | | 6 | | | | | frakcja wdychalna |
| | NDS | POLAND | | 2 | | | | | frakcja respirabilna |

| | SUVA | SWITZERLAND | | 5 | | A4 - Not Classifiable as a Human Carcinogen;pulmonary function;respiratory symptoms;asthma |
|--|-----------------|-------------------|---------|--------|--------|---|
| | DFG | GERMANY | | 15 | | |
| | National | SPAIN | | 4,000 | | 5 mg/m3 TWA (containing <1% of free Silica, respirable dust);10 mg/m3 TWA (containing <1% of free Silica, total dust) |
| | National | FINLAND | | 5,000 | | |
| | National | FINLAND | | 1,000 | | |
| | National | PORTUGAL | | 10 | | |
| | National | BELGIUM | | 10 | | |
| | NDS | POLAND | | 6,000 | | |
| | NDS | POLAND | | 2,000 | | |
| | National | HUNGARY | | 10 | | |
| | Malaysia OEL | MALAYSIA | | 10,000 | | |
| | National | LATVIA | | 6,000 | | |
| | National | UNITED KINGDOM | | 10,000 | | inhalable dust |
| | National | UNITED KINGDOM | | 4,000 | | respirable dust |
| | National | CROATIA | | 10,000 | 10,000 | |
| | DFG | GERMANY | С | 15 | | |
| | ACGIH | AUSTRALIA | | 1,000 | | A4 - Not Classifiable as a Human Carcinogen;pulmonary function;respiratory symptoms;asthma |
| | Malaysia OEL | MALAYSIA | | 10 | | 5 mg/m3 TWA (containing <1% of free Silica, respirable dust);10 mg/m3 TWA (containing <1% of free Silica, total dust) |
| | National | UNITED KINGDOM | | 10 | 30,000 | 5 mg/m3 TWA (containing <1% of free Silica, respirable dust);10 mg/m3 TWA (containing <1% of free Silica, total dust) |
| | National | UNITED KINGDOM | | 10 | 12,000 | |
| | National | UNITED KINGDOM | | 4,000 | | |
| | National | ROMANIA | | 10 | | |
| | National | CROATIA | | 10,000 | | |
| | National | CROATIA | | 4,000 | 10 | |
| free crystalline silica (Ø <10 μ) | National | SWEDEN | | 0,100 | | SWEDEN, respirable aerosol |
| | National | NORWAY | | 0,100 | | К 7 |
| | NDS | POLAND | | 2,000 | | frakcja wdychalna |
| | NDS | POLAND | | 0,300 | | frakcja respirabilna |
| | National | DENMARK | | 0,3 | 0,600 | DENMARK, inhalable aerosol inhalable aerosol |
| | National | DENMARK | | 0,100 | 0,200 | DENMARK, respirable aerosol respirable aerosol |
| | EU | NNN | | 0,1 | | A2 (R) - Pulm fibrosis, lung |
| Date 24/06/2020 F | Production Na | ame UNIPLAN E | ECO TDR | ł | | Page n. 4 of 11 |

| Component | CAS-No. | PNEC Exposure Limit Route | | Exposu Frequer | | Remark | | | |
|-----------------------|----------------------|------------------------------|---|-------------------|--------|--------------|----------|------------|--|
| Predicted No Effect (| | PNEC) values | | | | | | | |
| | EU | | | 17,6 | 5 | 35,2 | 10 | Indicative | |
| | National | CROATIA | | 17,6 | 5 | 35,2 | 10 | | |
| | National | LITHUANIA | | 17,6 | 5 | 35,2 | 10 | | |
| | TUR | TURKEY | | 17,6 | 5 | 35,2 | 10 | | |
| | National | ROMANIA | | 17,6 | 5 | 35,2 | 10 | | |
| | National | BULGARIA | | 17,6 | 5 | 35,2 | 10 | | |
| | National | UNITED KINGDOM | | 17,6 | 5 | 35,2 | 10 | | |
| | National | SLOVENIA | | 17,6 | 5 | 35,2 | 10 | | |
| | National | SLOVAKIA | | 36 | 10 | | | | |
| | National | SLOVAKIA (| 2 | | | 35,2 | | | |
| | | REPUBLIC | | | | | | | |
| | National | CZECH (| 2 | 17,0 | 5 | 36 | 10 | | |
| | National | LATVIA | | 17,6 | 5 | 35,2 | 10 | | |
| | National | ESTONIA | | 18 | 5 | 35,2 | 10 | | |
| | Malaysia OEL | | | 35 | 10 | | | | |
| | National | HUNGARY | | 17,6 | | 35,2 | | | |
| | National | CZECH REPUBLIC | | 18 | | | | | |
| | NDS | NETHERLANDS | | 18 | | 36 | | | |
| | CHE | SWITZERLAND | | | | 35 | 10 | | |
| | NDSCh | POLAND | | · | | 30 | | | |
| | National | BELGIUM | | 17,6 | 5 | 35,2 | 10 | | |
| | National | NORWAY | | 17,6 | 5 | 35,2 | 10 | | |
| | National | PORTUGAL | | 17,6 | 5 | 35,2 | 10 | | |
| | National | GERMANY | | 18 | 5 | | | | |
| | National | DENMARK | | 17,6 | 5 | 2,2 | 10 | | |
| | National | GREECE | | 17,6 | э 5 | 35,2 35,2 | 10 | | |
| | National National | FRANCE SPAIN | | 17,6 17,6 | 5 5 | 35,2 | 10 10 | | |
| | National | | | 18 | 5 | 25.2 | 10 | | |
| | | | | | | | | | irritation |
| | ACGIH | | | | 10 | | 15 | | A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans;CNS impairment;eye, skin and upper respiratory tract |
| | | | | | | | | | CNS impair |
| | ACGIH | NNN | | 20 | 10 | 00 | 15 | | A3 - URT, eye and skin irr, |
| | NDSCh National | POLAND NORWAY | | 30 30 | 10 | 60 | 20 | | |
| | National | | | 17,6 | 5 | 35,2 | 10 | | NORWAY, K |
| | National | FINLAND | | 18 | 5 | 35 | 10 | | |
| | National | SWEDEN | | 18 | 5 | 35 | 10 | | SWEDEN, Short-term value, 15 minutes average value |
| vinyl acetate | NDS | POLAND | | 10 | - | 25 | 10 | | |
| | National | AUSTRIA | | 0,150 | | | | | A |
| | ACGIH | NNN | | 0,025 | | | | | (R), A2 - Pulm fibrosis, lung cancer |
| | 10011 | | | 0.005 | | | | | |
| | | | | | | | | | cancer |

mg/l

| 0,0016 mg/l | Marine water |
|-----------------|-------------------------|
| 0,126 mg/l | Intermittent release |
| 0,067 mg/kg | Freshwater sediments |
| 0,0067 mg/kg | Marine water sediments |
| 0,0035 mg/kg | Soil |

Derived No Effect Level. (DNEL)

| Component | CAS-No. | r Worker Consu r Profess mer ional | Exposure Route | Exposure Frequency Remark |
|---------------|----------|--|---------------------|---------------------------------|
| vinyl acetate | 108-05-4 | 0,42 mg/kg | Human Dermal | Long Term, systemic effects |
| | | 35,2 mg/m3 | Human Inhalation | Short Term, systemic effects |
| | | 35,2 mg/m3 | Human Inhalation | Short Term, local effects |
| | | 17,6 mg/m3 | Human Inhalation | Long Term, systemic effects |
| | | 17,6 mg/m3 | Human Inhalation | Long Term, local 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 >=0,5mm; breakthrough time >=480min.

Nitrile rubber - NBR: thickness >=0,35mm; breakthrough time >=480min.

Butyl rubber - IIR: thickness >=0,5mm; breakthrough time >=480min.

Fluorinated rubber - FKM: thickness >=0,4mm; breakthrough time >=480min.

Nitrile gloves are suggested (1,3 mm; 480 min). 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.

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

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

Physical State Solid Appearance and colour: Powder various Odour: cement like Odour threshold: N.A. pH: N.A. pH (water dispersion, 10%): 12.00 Melting point / freezing point: N.A. Initial boiling point and boiling range: N.A. 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. Apparent density: 1.3 Solubility in water: partly soluble Partition coefficient (n-octanol/water): N.A. - This product is a mixture Auto-ignition temperature: N.A. - No explosive or spontaneous ignition in contact with air at room temperature Decomposition temperature: N.A. Viscosity: N.A. Explosive properties: == - No components with explosive properties Oxidizing properties: N.A. - No component with oxidizing properties 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

Contains cement. Cement gives a strong alkaline reaction with water and body fluids (e.g. sweat and eye fluids), therefore the contact with skin and eyes should be carefully avoided.

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:

| free crystalline silica (Ø >10 μ) | a) acute toxicity | LD50 Oral > 2000 mg/kg |
|--------------------------------------|-------------------|---|
| | | LD50 Skin > 2000 mg/kg |
| free crystalline silica (Ø <10 μ) | a) acute toxicity | LD50 Oral Rat = 500 mg/kg |
| vinyl acetate | a) acute toxicity | LD50 Oral Rat = 3500 mg/kg LD50 Skin Rabbit = 7440 mg/kg LC50 Inhalation Rat = 15,8 mg/l 4h LD50 Skin Rabbit = 2335 mg/kg LC50 Inhalation Rat = 3680 ppm 4h LD50 Oral Rat = 2900 mg/kg |

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 | | | | |
| vinyl acetate | CAS: 108-05-4 - EINECS: 203-545-4 | a) Aquatic acute toxicity : EC50 Daphnia = 12,6 mg/L 48 | | | | |
| | | a) Aquatic acute toxicity : EC50 Algae = 7,48 mg/L 72 | | | | |
| | | b) Aquatic chronic toxicity : NOEC Fish = $0,551 \text{ mg/L} - 34 \text{ d}$ | | | | |
| | | a) Aquatic acute toxicity : NOEC Daphnia = 4,77 mg/L 48 | | | | |
| | | a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 14 mg/L 96h EPA | | | | |
| | | a) Aquatic acute toxicity: LC50 Fish Lepomis macrochirus 15,04 mg/L 96h EPA | | | | |
| | | a) Aquatic acute toxicity: LC50 Fish Poecilia reticulata 26,1 mg/L 96h EPA | | | | |

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

ΝΑ

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

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

A waste code according to European waste catalogue (EWC) cannot be specified, due to dependence on the usage. Contact an authorized waste disposal service.

Product:

Do not dispose of waste into sewers.

Do not contaminate ponds, waterways or ditches with chemical or used container.

Send to an authorized waste disposal service.

Contaminated packaging:

Empty remaining content.

Dispose of as unused product.

Do not re-use empty containers.

SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

14.1. UN number

ΝΑ

| 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 The product contains Cr (VI) under the limits established by annex. XVII pt.47. Respect the duration according to the information described on the packaging. 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. 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) 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, 40 Restrictions related to the substances contained: 28

SVHC Substances:

No data available

Produktregisteret Norge: 600782 Produktregister Danmark: 4052810 MAL-kode: 00-4 (1993)

15.2. Chemical safety assessment

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

SECTION 16: Other information

Code Description

H225 Highly flammable liquid and vapour.

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H351 Suspected of causing cancer.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H412 Harmful to aquatic life with long lasting effects.

| Code | Hazard class and hazard category | Description |
|-------------|----------------------------------|--|
| 2.6/2 | Flam. Liq. 2 | Flammable liquid, Category 2 |
| 3.1/4/Inhal | Acute Tox. 4 | Acute toxicity (inhalation), Category 4 |
| 3.2/2 | Skin Irrit. 2 | Skin irritation, Category 2 |
| 3.3/1 | Eye Dam. 1 | Serious eye damage, Category 1 |
| 3.4.2/1B | Skin Sens. 1B | Skin Sensitisation, Category 1B |
| 3.6/2 | Carc. 2 | Carcinogenicity, Category 2 |
| 3.8/3 | STOT SE 3 | Specific target organ toxicity — single exposure, Category 3 |
| 3.9/2 | STOT RE 2 | Specific target organ toxicity — repeated exposure, Category 2 |
| 4.1/C3 | Aquatic Chronic 3 | Chronic (long term) aquatic hazard, 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 | |
|---|--------------------------|--|
| 3.3/1 | Calculation method | |
| 3.4.2/1B | 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:

- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 13. DISPOSAL CONSIDERATIONS
- 15. REGULATORY INFORMATION