

SAFETY DATA SHEET

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

1.1. Product identifier

Trade name

Nowo Metal Roof 2-K. PU Combi SB

Product no.

-

REACH registration number

Not applicable

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

Relevant identified uses of the substance or mixture

Paint for metalsurfaces

Uses advised against

-

The full text of any mentioned and identified use categories are given in section 16

1.3. Details of the supplier of the safety data sheet

Company and address

NOWOCOAT INDUSTRIAL A/S

Stålvej 3

6000 Kolding

tlf: +45 7550 1111

mail@nowocoat.dk

Contact person

Annette Søgaard

E-mail

mail@nowocoat.dk

SDS date

2018-04-24

SDS Version

1.1

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service). See section 4 "First aid measures".

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Flam. Liq. 3; H226

Eye Irrit. 2; H319

Aquatic Chronic 3; H412

See full text of H-phrases in section 2.2.

2.2. Label elements

Hazard pictogram(s)**Signal word**

Warning

Hazard statement(s)

Flammable liquid and vapour. (H226)

Causes serious eye irritation. (H319)

Harmful to aquatic life with long lasting effects. (H412)

Safety statement(s)

<p>General Prevention</p>	<p>- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210). Wear eye protection. (P280).</p>
<p>Response</p>	<p>If eye irritation persists: Get medical advice/attention. (P337+P313). In case of fire: Use alcohol-resistant foam/carbonic acid/powder/water mist/carbon dioxide/dry sand to extinguish. (P370+P378).</p>
<p>Storage Disposal</p>	<p>Store in a well-ventilated place. Keep cool. (P403+P235). Dispose of contents/container to an approved waste disposal plant. (P501).</p>

Identity of the substances primarily responsible for the major health hazards

Not applicable

2.3. Other hazards

This product contains an organic solvent. Repeated or prolonged exposure to organic solvents may result in adverse effects to the nervous system and internal organs such as liver and kidneys.

Additional labelling

Contains Methyl methacrylate. May produce an allergic reaction. (EUH208).

Contains epoxy constituents. May produce an allergic reaction. (EUH205)

Additional warnings

Not applicable.

VOC

VOC-MAX: 265 g/l, MAXIMUM VOC CONTENT (A/d (SB)): 300 g/l.

SECTION 3: Composition/information on ingredients

3.1/3.2. Substances/Mixtures

<p>NAME: IDENTIFICATION NOS.: CONTENT: CLP CLASSIFICATION:</p>	<p>Limestone CAS-no: 1317-65-3 EC-no: 215-279-6 25-40% NA</p>
<p>NAME: IDENTIFICATION NOS.: CONTENT: CLP CLASSIFICATION:</p>	<p>m-Xylene CAS-no: 1330-20-7 EC-no: 215-535-7 Index-no: 601-022-00-9 5 - <10% Flam. Liq. 3, Acute Tox. 4, Skin Irrit. 2 H226, H312, H315, H332 SL</p>
<p>NAME: IDENTIFICATION NOS.: CONTENT: CLP CLASSIFICATION:</p>	<p>n-Butyl acetate CAS-no: 123-86-4 EC-no: 204-658-1 Index-no: 607-025-00-1 5 - <10% Flam. Liq. 3, STOT SE 3 H226, H336, EUH066 S</p>
<p>NAME: IDENTIFICATION NOS.: CONTENT: CLP CLASSIFICATION:</p>	<p>Talc (Mg3H2(SiO3)4) CAS-no: 14807-96-6 EC-no: 238-877-9 5 - <10% NA</p>
<p>NAME: IDENTIFICATION NOS.: CONTENT: CLP CLASSIFICATION:</p>	<p>Carbon black CAS-no: 1333-86-4 EC-no: 215-609-9 2.5 - <5% NA</p>
<p>NAME: IDENTIFICATION NOS.: CONTENT: CLP CLASSIFICATION:</p>	<p>Ethylbenzene CAS-no: 100-41-4 EC-no: 202-849-4 Index-no: 601-023-00-4 1 - <2.5% Flam. Liq. 2, Acute Tox. 4, STOT RE 2, Asp. Tox. 1 H225, H304, H332, H373 SL</p>
<p>NAME: IDENTIFICATION NOS.: CONTENT: CLP CLASSIFICATION:</p>	<p>Trizinc bis(orthophosphate) CAS-no: 7779-90-0 EC-no: 231-944-3 Index-no: 030-011-00-6 1 - <2.5% Aquatic Acute 1, Aquatic Chronic 1 H400, H410</p>

NAME:	3-(2,3-Epoxypropoxy)propyl]trimethoxysilane
IDENTIFICATION NOS.:	CAS-no: 2530-83-8 EC-no: 219-784-2
CONTENT:	1 - <2.5%
CLP CLASSIFICATION:	Eye Dam. 1 H318
NOTE:	H
NAME:	Zinc oxide
IDENTIFICATION NOS.:	CAS-no: 1314-13-2 EC-no: 215-222-5 Index-no: 030-013-00-7
CONTENT:	0.25 - <1%
CLP CLASSIFICATION:	Aquatic Acute 1, Aquatic Chronic 1 H400, H410
NAME:	Methyl methacrylate
IDENTIFICATION NOS.:	CAS-no: 80-62-6 EC-no: 201-297-1 Index-no: 607-035-00-6
CONTENT:	0.1 - <0.25%
CLP CLASSIFICATION:	Flam. Liq. 2, Skin Irrit. 2, Skin Sens. 1, STOT SE 3 H225, H315, H317, H335
NOTE:	SL

(*) See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.
S = Organic solvent H = Epoxy resin L = European occupational exposure limit.

Other information

ATEmix(inhale, vapour) > 20
ATEmix(dermal) > 2000
Eye Cat. 2 Sum = $\text{Sum}(\text{Ci}/\text{S}(\text{G})\text{CLi}) = > 1 - 1,308$
Skin Cat. 2 Sum = $\text{Sum}(\text{Ci}/\text{S}(\text{G})\text{CLi}) = 0,6672 - < 1$
N chronic (CAT 3) Sum = $\text{Sum}(\text{Ci}/(\text{M}(\text{chronic})^*25)*0.1*10^{\wedge}\text{CATi}) = > 1 - < 10$
N acute (CAT 1) Sum = $\text{Sum}(\text{Ci}/\text{M}(\text{acute})^*25) = 0,06944 - 0,10416$

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. The doctor can contact The National Poisons Information Service (dial 111, 24 h service). Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Bring the person into fresh air and stay with him/her.

Skin contact

Immediately remove contaminated clothing and shoes. Ensure that skin, which has been exposed to the material, is washed thoroughly with soap and water. Skin cleanser can be used. DO NOT use solvents or thinners.

Eye contact

Remove contact lenses. Flush eyes immediately with plenty of water or isotonic water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure to flush under the upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

Ingestion

Provide plenty of water for the person to drink and stay with him/her. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the victim lean forward with head down to avoid inhalation of- or choking on vomited material.

Burns

Rinse with water until the pain stops then continue to rinse for a further 30 minutes.

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

This product contains substances that may trigger an allergic reaction to predisposed persons. Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

If eye irritation persists: Get medical advice/attention.

Information to medics

Bring this safety data sheet.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Recommended: alcohol-resistant foam, carbonic acid, powder, water mist. Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous catabolic substances are produced. These are: Carbon oxides. Some metal oxides. Fire will result in dense black smoke. Exposure to combustion products may harm your health. Fire fighters should wear appropriate protection equipment. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

5.3. Advice for firefighters

No specific requirements.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities. It is recommended to install waste collection trays to prevent emissions to the waste water system and surrounding environment.

6.3. Methods and material for containment and cleaning up

Use sand, sawdust, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations. To the extent possible cleaning is performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section on "Disposal considerations" in regard of handling of waste. See section on 'Exposure controls/personal protection' for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Smoking, storage of tobacco, consumption and storage of food or liquids are not allowed in the workrooms. It is recommended to install waste collection trays to prevent emissions to the waste water system and surrounding environment. See section on 'Exposure controls/personal protection' for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Always store in containers of the same material as the original container. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Must be stored in a cool and well-ventilated area, away from possible sources of ignition.

Storage temperature

No data available.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OEL

Methyl methacrylate

Long-term exposure limit (8-hour TWA reference period): 50 ppm | 208 mg/m³

Short-term exposure limit (15-minute reference period): 100 ppm | 416 mg/m³

Ethylbenzene

Long-term exposure limit (8-hour TWA reference period): 100 ppm | 441 mg/m³

Short-term exposure limit (15-minute reference period): 125 ppm | 552 mg/m³

Comments: Sk (Sk = Can be absorbed through skin.)

Carbon black

Long-term exposure limit (8-hour TWA reference period): - ppm | 3.5 mg/m³

Short-term exposure limit (15-minute reference period): - ppm | 7 mg/m³

Talc ($Mg_3H_2(SiO_3)_4$)

Long-term exposure limit (8-hour TWA reference period): - ppm | 1 mg/m³

Short-term exposure limit (15-minute reference period): - ppm | - mg/m³

n-Butyl acetate

Long-term exposure limit (8-hour TWA reference period): 150 ppm | 724 mg/m³

Short-term exposure limit (15-minute reference period): 200 ppm | 966 mg/m³

m-Xylene

Long-term exposure limit (8-hour TWA reference period): 50 ppm | 220 mg/m³

Short-term exposure limit (15-minute reference period): 100 ppm | 441 mg/m³

Comments: Sk BMGV (Bmgv = Biological Monitoring Guidance Value. Sk = Can be absorbed through skin.)

Limestone

Long-term exposure limit (8-hour TWA reference period): - ppm | - mg/m³

Short-term exposure limit (15-minute reference period): - ppm | - mg/m³

DNEL / PNEC

DNEL (n-Butyl acetate): 48 mg/m³

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (n-Butyl acetate): 600 mg/m³

Exposure: Inhalation

Duration of Exposure: Short term – Systemic effects - Workers

DNEL (n-Butyl acetate): 300 mg/m³

Exposure: Inhalation

Duration of Exposure: Long term – Local effects - Workers

DNEL (n-Butyl acetate): 600 mg/m³

Exposure: Inhalation

Duration of Exposure: Short term – Local effects - Workers

DNEL (n-Butyl acetate): 7 mg/kg bw/day

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (n-Butyl acetate): 11 mg/kg bw/day

Exposure: Dermal

Duration of Exposure: Short term – Systemic effects - Workers

DNEL (n-Butyl acetate): 12 mg/m³

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - General population

DNEL (n-Butyl acetate): 300 mg/m³

Exposure: Inhalation

Duration of Exposure: Short term – Systemic effects - General population

DNEL (n-Butyl acetate): 35.7 mg/m³

Exposure: Inhalation

Duration of Exposure: Long term – Local effects - General population

DNEL (n-Butyl acetate): 300 mg/m³

Exposure: Inhalation

Duration of Exposure: Short term – Local effects - General population

DNEL (n-Butyl acetate): 3.4 mg/kg bw/day

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - General population

DNEL (n-Butyl acetate): 6 mg/kg bw/day

Exposure: Dermal

Duration of Exposure: Short term – Systemic effects - General population

DNEL (n-Butyl acetate): 2 mg/kg bw/day

Exposure: Oral

Duration of Exposure: Long term – Systemic effects - General population

DNEL (n-Butyl acetate): 2 mg/kg bw/day

Exposure: Oral

Duration of Exposure: Short term – Systemic effects - General population

DNEL (m-Xylene): 77 mg/m³

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (m-Xylene): 289 mg/m³

Exposure: Inhalation

Duration of Exposure: Short term – Local effects - Workers

DNEL (m-Xylene): 180 mg/kg bw/day

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (m-Xylene): 14.8 mg/m³

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - General population

DNEL (m-Xylene): 108 mg/kg bw/day

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - General population

DNEL (m-Xylene): 1.6 mg/kg bw/day

Exposure: Oral

Duration of Exposure: Long term – Systemic effects - General population

DNEL (Ethylbenzene): 77 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Systemic effects - Workers
DNEL (Ethylbenzene): 293 mg/m³
Exposure: Inhalation
Duration of Exposure: Short term – Local effects - Workers
DNEL (Ethylbenzene): 180 mg/kg bw/day
Exposure: Dermal
Duration of Exposure: Long term – Systemic effects - Workers
DNEL (Ethylbenzene): 15 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Systemic effects - General population
DNEL (Ethylbenzene): 1.6 mg/kg bw/day
Exposure: Oral
Duration of Exposure: Long term – Systemic effects - General population

DNEL (Methyl methacrylate): 208 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Systemic effects - Workers
DNEL (Methyl methacrylate): 208 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Local effects - Workers
DNEL (Methyl methacrylate): 13.67 mg/kg bw/day
Exposure: Dermal
Duration of Exposure: Long term – Systemic effects - Workers
DNEL (Methyl methacrylate): 1.5 mg/cm²
Exposure: Dermal
Duration of Exposure: Long term – Local effects - Workers
DNEL (Methyl methacrylate): 1.5 mg/cm²
Exposure: Dermal
Duration of Exposure: Short term – Local effects - Workers
DNEL (Methyl methacrylate): 74.3 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Systemic effects - General population
DNEL (Methyl methacrylate): 104 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Local effects - General population
DNEL (Methyl methacrylate): 8.2 mg/kg bw/day
Exposure: Dermal
Duration of Exposure: Long term – Systemic effects - General population
DNEL (Methyl methacrylate): 1.5 mg/cm²
Exposure: Dermal
Duration of Exposure: Long term – Local effects - General population
DNEL (Methyl methacrylate): 1.5 mg/cm²
Exposure: Dermal
Duration of Exposure: Short term – Local effects - General population

DNEL (Carbon black): 1 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Systemic effects - Workers
DNEL (Carbon black): 2 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Local effects - Workers
DNEL (Carbon black): 60 µg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Systemic effects - General population
DNEL (Carbon black): 1.75 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Local effects - General population

DNEL (3-(2,3-Epoxypropoxy)propyl]trimethoxysilane): 147 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Systemic effects - Workers
DNEL (3-(2,3-Epoxypropoxy)propyl]trimethoxysilane): 21 mg/kg
Exposure: Dermal
Duration of Exposure: Long term – Systemic effects - Workers
DNEL (3-(2,3-Epoxypropoxy)propyl]trimethoxysilane): 43.5 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Systemic effects - General population
DNEL (3-(2,3-Epoxypropoxy)propyl]trimethoxysilane): 12.5 mg/kg
Exposure: Dermal
Duration of Exposure: Long term – Systemic effects - General population
DNEL (3-(2,3-Epoxypropoxy)propyl]trimethoxysilane): 12.5 mg/kg
Exposure: Oral
Duration of Exposure: Long term – Systemic effects - General population

DNEL (Trizinc bis(orthophosphate)): 5 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Systemic effects - Workers

DNEL (Trizinc bis(orthophosphate)): 83 mg/kg bw/day
Exposure: Dermal
Duration of Exposure: Long term – Systemic effects - Workers
DNEL (Trizinc bis(orthophosphate)): 2.5 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Systemic effects - General population
DNEL (Trizinc bis(orthophosphate)): 83 mg/kg bw/day
Exposure: Dermal
Duration of Exposure: Long term – Systemic effects - General population
DNEL (Trizinc bis(orthophosphate)): 830 µg/kg bw/day
Exposure: Oral
Duration of Exposure: Long term – Systemic effects - General population

DNEL (Zinc oxide): 5 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Systemic effects - Workers
DNEL (Zinc oxide): 500 µg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Local effects - Workers
DNEL (Zinc oxide): 83 mg/kg bw/day
Exposure: Dermal
Duration of Exposure: Long term – Systemic effects - Workers
DNEL (Zinc oxide): 2.5 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Systemic effects - General population
DNEL (Zinc oxide): 83 mg/kg bw/day
Exposure: Dermal
Duration of Exposure: Long term – Systemic effects - General population
DNEL (Zinc oxide): 830 µg/kg bw/day
Exposure: Oral
Duration of Exposure: Long term – Systemic effects - General population

PNEC (n-Butyl acetate): 180 µg/L
Exposure: Freshwater
Duration of Exposure: Single
PNEC (n-Butyl acetate): 18 µg/L
Exposure: Marine water
Duration of Exposure: Single
PNEC (n-Butyl acetate): 35.6 mg/L
Exposure: Intermittent release
Duration of Exposure: Continuous
PNEC (n-Butyl acetate): 90.3 µg/kg soil dw
Exposure: Soil
Duration of Exposure: Single

PNEC (m-Xylene): 327 µg/L
Exposure: Freshwater
Duration of Exposure: Single
PNEC (m-Xylene): 327 µg/L
Exposure: Marine water
Duration of Exposure: Single
PNEC (m-Xylene): 327 µg/L
Exposure: Intermittent release
Duration of Exposure: Continuous
PNEC (m-Xylene): 2.31 mg/kg soil dw
Exposure: Soil
Duration of Exposure: Single

PNEC (Ethylbenzene): 100 µg/L
Exposure: Freshwater
Duration of Exposure: Single
PNEC (Ethylbenzene): 10-100 µg/L
Exposure: Marine water
Duration of Exposure: Single
PNEC (Ethylbenzene): 100 µg/L
Exposure: Intermittent release
Duration of Exposure: Continuous
PNEC (Ethylbenzene): 2.68 mg/kg soil dw
Exposure: Soil
Duration of Exposure: Single

PNEC (Methyl methacrylate): 940 µg/L
Exposure: Freshwater
Duration of Exposure: Single
PNEC (Methyl methacrylate): 940 µg/L
Exposure: Marine water
Duration of Exposure: Single

PNEC (Methyl methacrylate): 940 µg/L
Exposure: Intermittent release
Duration of Exposure: Continuous
PNEC (Methyl methacrylate): 1.47 mg/kg soil dw
Exposure: Soil
Duration of Exposure: Single

PNEC (Carbon black): 5 - 50 mg/L
Exposure: Freshwater
Duration of Exposure: Single
PNEC (Carbon black): 5 mg/L
Exposure: Marine water
Duration of Exposure: Single

PNEC (3-(2,3-Epoxypropoxy)propyl]trimethoxysilane): 1 mg/L
Exposure: Freshwater
Duration of Exposure: Single
PNEC (3-(2,3-Epoxypropoxy)propyl]trimethoxysilane): 0,1 mg/L
Exposure: Marine water
Duration of Exposure: Single
PNEC (3-(2,3-Epoxypropoxy)propyl]trimethoxysilane): 1 mg/L
Exposure: Intermittent release
Duration of Exposure: Continuous
PNEC (3-(2,3-Epoxypropoxy)propyl]trimethoxysilane): 0,14 mg/kg
Exposure: Soil
Duration of Exposure: Single

PNEC (Trizinc bis(orthophosphate)): 20.6 µg/L
Exposure: Freshwater
Duration of Exposure: Single
PNEC (Trizinc bis(orthophosphate)): 6.1 µg/L
Exposure: Marine water
Duration of Exposure: Single
PNEC (Trizinc bis(orthophosphate)): 35.6 mg/kg soil dw
Exposure: Soil
Duration of Exposure: Single

PNEC (Zinc oxide): 20.6 µg/L
Exposure: Freshwater
Duration of Exposure: Single
PNEC (Zinc oxide): 6.1 µg/L
Exposure: Marine water
Duration of Exposure: Single
PNEC (Zinc oxide): 35.6 mg/kg soil dw
Exposure: Soil
Duration of Exposure: Single

8.2. Exposure controls

Compliance with the accepted occupational exposure limits values should be controlled on a regular basis.

General recommendations

Observe general occupational hygiene standards.

Exposure scenarios

In the event exposure scenarios are appended to the safety data sheet, the operational conditions and risk management measures in these shall be complied with.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

Airborne gas and dust concentrations must be kept at a minimum and below current limit values (see above). Installation of an exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure emergency eyewash and -showers are clearly marked.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

No specific requirements.

Individual protection measures, such as personal protective equipment



Generally

Use only CE marked protective equipment.

Respiratory Equipment

Recommended: A. Class 1 (low capacity). Brown.

Skin protection

Wear appropriate protection clothing, e.g. coveralls in polypropylene approved type 6 and Category III.

Hand protection

Recommended: Butyl rubber. See the manufacturer's instructions.

Eye protection

Wear safety glasses with side shields.

SECTION 9: Physical and chemical properties

▼ 9.1. Information on basic physical and chemical properties

Form	Liquid
Colour	Black
Odour	No data available.
Odour threshold (ppm)	No data available.
pH	No data available.
Viscosity (40°C)	No data available.
Density (g/cm ³)	1,5-1,7

Phase changes

Melting point (°C)	No data available.
Boiling point (°C)	No data available.
Vapour pressure	No data available.
Decomposition temperature (°C)	No data available.
Evaporation rate (n-butylacetate = 100)	No data available.

Data on fire and explosion hazards

Flash point (°C)	No data available.
Ignition (°C)	No data available.
Auto flammability (°C)	No data available.
Explosion limits (% v/v)	No data available.
Explosive properties	No data available.

▼ Solubility

Solubility in water	Insoluble
n-octanol/water coefficient	No data available.

9.2. Other information

Solubility in fat (g/L)	No data available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in the section "Handling and storage".

10.3. Possibility of hazardous reactions

Nothing special.

10.4. Conditions to avoid

Avoid static electricity. Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Substance: Methyl methacrylate
Species: Rat
Test: LD50
Route of exposure: Oral
Result: 8000 mg/kg bw

According to EC-Regulation 2015/830

Substance: Methyl methacrylate
Species: Rabbit
Test: LD50
Route of exposure: Dermal
Result: > 5000 mg/kg bw

Substance: Methyl methacrylate
Species: Rat
Test: LC50
Route of exposure: Inhalation
Result: 29,8 mg/l air

Substance: Zinc oxide
Species: Rat
Test: LD50
Route of exposure: Oral
Result: 2000 - 5000 mg/kg bw

Substance: Zinc oxide
Species: Rat
Test: LD50
Route of exposure: Dermal
Result: 2000 mg/kg bw

Substance: Zinc oxide
Species: Rat
Test: LC50
Route of exposure: Inhalation
Result: 1.79 - 5.7 mg/L air (4 h)

Substance: 3-(2,3-Epoxypropoxy)propyl]trimethoxysilane
Species: Rat
Test: LD50
Route of exposure: Oral
Result: 8400 mg/kg

Substance: 3-(2,3-Epoxypropoxy)propyl]trimethoxysilane
Species: Rabbit
Test: LD50
Route of exposure: Dermal
Result: 6800 mg/kg bw

Substance: 3-(2,3-Epoxypropoxy)propyl]trimethoxysilane
Species: Rat
Test: LC50
Route of exposure: Inhalation
Result: > 2.7 mg/L air

Substance: Trizinc bis(orthophosphate)
Species: Rat
Test: LD50
Route of exposure: Oral
Result: 5000 mg/kg bw

Substance: Ethylbenzene
Species: Rat
Test: LD50
Route of exposure: Oral
Result: 3500 mg/kg bw

Substance: Ethylbenzene
Species: Rabbit
Test: LD50
Route of exposure: Dermal
Result: 17,8 mL/kg bw

Substance: Carbon black
Species: Rat
Test: LD50
Route of exposure: Oral
Result: 8000 mg/kg bw

Substance: n-Butyl acetate
Species: Rat
Test: LD50
Route of exposure: Oral
Result: 10736 - 12760 mg/kg bw

According to EC-Regulation 2015/830

Substance: n-Butyl acetate
Species: Rabbit
Test: LD50
Route of exposure: Dermal
Result: 16 mL/kg bw

Substance: n-Butyl acetate
Species: Rat
Test: LC50
Route of exposure: Inhalation
Result: 1087 - 1109 ppm (4h)

Skin corrosion/irritation

No data available.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

This product contains substances that may trigger an allergic reaction to predisposed persons.

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

Long term effects

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

SECTION 12: Ecological information

12.1. Toxicity

Substance: Methyl methacrylate
Species: Daphnia
Test: EC50
Duration: 48 h
Result: 69 mg/L

Substance: Methyl methacrylate
Species: Fish
Test: LC50
Duration: 96 h
Result: 79 mg/L

Substance: Methyl methacrylate
Species: Algae
Test: EC50
Duration: 72 h
Result: 110 mg/L

Substance: Zinc oxide
Species: Daphnia
Test: EC50
Duration: 48 h
Result: 155 µg/L

Substance: Zinc oxide
Species: Fish
Test: LC50
Duration: 96 h
Result: 112 - 8062 µg/L

Substance: 3-(2,3-Epoxypropoxy)propyl]trimethoxysilane
Species: Daphnia
Test: LC50
Duration: 48 h
Result: 324 mg/L

According to EC-Regulation 2015/830

Substance: 3-(2,3-Epoxypropoxy)propyl]trimethoxysilane
Species: Fish
Test: LC50
Duration: 96 h
Result: 4.9 mg/L

Substance: 3-(2,3-Epoxypropoxy)propyl]trimethoxysilane
Species: Algae
Test: EC50
Duration: 72 h
Result: > 420 mg/L

Substance: Trizinc bis(orthophosphate)
Species: Daphnia
Test: EC50
Duration: 48 h
Result: 155 - 2909 µg/L

Substance: Trizinc bis(orthophosphate)
Species: Fish
Test: LC50
Duration: 96 h
Result: 112 - 2920 µg/L

Substance: Ethylbenzene
Species: Daphnia
Test: EC50
Duration: 48 h
Result: 1.8 - 2.4 mg/L

Substance: Ethylbenzene
Species: Fish
Test: LC50
Duration: 96 h
Result: 4.2 - 5.1 mg/L

Substance: Ethylbenzene
Species: Algae
Test: EC50
Duration: 72 h
Result: 4.9 - 5.4 mg/L

Substance: Carbon black
Species: Daphnia
Test: LC50
Duration: 48 h
Result: 164 mg/L

Substance: Carbon black
Species: Algae
Test: EC50
Duration: 72 h
Result: 10 g/L

Substance: n-Butyl acetate
Species: Daphnia
Test: EC50
Duration: 48 h
Result: 32 - 44 mg/L

Substance: n-Butyl acetate
Species: Fish
Test: LC50
Duration: 96 h
Result: 18 mg/L

Substance: n-Butyl acetate
Species: Algae
Test: EC50
Duration: 72 h
Result: 246 - 674.7 mg/L

Substance: m-Xylene
Species: Fish
Test: LC50
Duration: 96 h
Result: 2.6 mg/L

Substance: m-Xylene
 Species: Algae
 Test: EC50
 Duration: 73 h
 Result: 2.2 - 4.36 mg/L

12.2. Persistence and degradability

Substance	Biodegradability	Test	Result
Methyl methacrylate	Yes	Modified MITI Test	94 %
3-(2,3-Epoxypropoxy)propyl]tri...	No	DOC Die-Away Test	37 %
Ethylbenzene	Yes	Modified OECD Screening Test	79 %
n-Butyl acetate	Yes	Closed Bottle Test	83 %
m-Xylene	Yes	Modified OECD Screening Test	68 %

12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BCF
Methyl methacrylate	No	1,38	No data available
3-(2,3-Epoxypropoxy)propyl]tri...	No	-26	No data available
Ethylbenzene	Yes	3,6	1
n-Butyl acetate	No	2,3	No data available
m-Xylene	No	32	25,9

12.4. Mobility in soil

Methyl methacrylate: Log Koc= 1,171222, Calculated from LogPow (High mobility potential.).
 3-(2,3-Epoxypropoxy)propyl]tri...: Log Koc= -20,511, Calculated from LogPow (High mobility potential.).
 Ethylbenzene: Log Koc= 2,92924, Calculated from LogPow (Moderate mobility potential.).
 n-Butyl acetate: Log Koc= 1,89977, Calculated from LogPow (High mobility potential.).
 m-Xylene: Log Koc= 25,4192, Calculated from LogPow (High mobility potential.).

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Other adverse effects

This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.

This product contains substances, which due to poor biodegradability, may cause adverse long-term effects to the aquatic environment,

This product contains substances with the potential of bioaccumulation resulting in the risk of accumulation in the food chain. Bioaccumulative substances are concentrated in adipose tissue and are not easily secreted.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste.

Waste

EWC code

08 01 11*

waste paint and varnish containing organic solvents or other dangerous substances

Specific labelling

-

Contaminated packing

Contaminated packaging must be disposed of similarly to the product.

SECTION 14: Transport information

14.1 – 14.4

This product is within scope of the regulations of transport of dangerous goods.

ADR/RID

14.1. UN number 1263

14.2. UN proper shipping name PAINT (including paint thinning and reducing compound)

14.3. Transport hazard class(es) 3

14.4. Packing group III

Notes -

Tunnel restriction code -

IMDG

UN-no.	1263
Proper Shipping Name	PAINT (including paint thinning and reducing compound)
Class	3
PG*	III
EmS	-
MP**	-
Hazardous constituent	-

IATA/ICAO

UN-no.	1263
Proper Shipping Name	PAINT (including paint thinning and reducing compound)
Class	3
PG*	III

14.5. Environmental hazards

-

14.6. Special precautions for user

-

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

No data available.

(*) Packing group

(**) Marine pollutant

SECTION 15: Regulatory information

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

Restrictions for application

People under the age of 18 shall not be exposed to this product cf. Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education

Use of this product requires dedicated training in work with polyurethane and epoxy products.

Additional information

Not applicable.

Seveso

Seveso III Part 1: P5c

Sources

Council Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding.

Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.

Directive 2004/42/CE of the European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC.

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677. The Stationery Office, 2002.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (CLP).

EC regulation 1907/2006 (REACH).

The Control of Major Accident Hazards (COMAH) Regulations 2015.

15.2. Chemical safety assessment

No.

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

- H225 - Highly flammable liquid and vapour.
- H226 - Flammable liquid and vapour.
- H304 - May be fatal if swallowed and enters airways.
- H312 - Harmful in contact with skin.
- 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.
- H336 - May cause drowsiness or dizziness.
- H373 - May cause damage to organs through prolonged or repeated exposure^a.
- H400 - Very toxic to aquatic life.
- H410 - Very toxic to aquatic life with long lasting effects.
- EUH066 - Repeated exposure may cause skin dryness or cracking.

The full text of identified uses as mentioned in section 1

-

Additional label elements

Not applicable

Other

In accordance with Regulation (EC) No. 1272/2008 (CLP) the evaluation of the classification of the mixture is based on:

The classification of the mixture in regard of physical hazards has been based on experimental data.

The classification of the mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)

The classification of the mixture in regard of environmental hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The safety data sheet is validated by

Annette

Date of last essential change (First cipher in SDS version)

2018-04-24

Date of last minor change (Last cipher in SDS version)

2018-04-24