

Wikosil®-NP

1. Identification of the substance/mixture and of the company/undertaking

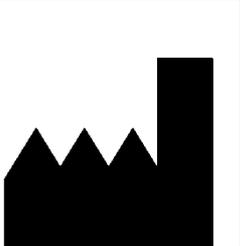
1.1 Product identifier

Trade Name	Wikosil-NP
Item number	NP 6202
BAG-Register number (CH)	CPID: 121762-17 UFI: 6P20-V063-900N-A13N

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

Relevant identified uses	Sealant
Uses advised against	All applications that are not explained in this technical data sheet.
Field for application [SU]	SU22 – Commercial use: Public domain (administration, education, entertainment, services, trade)

1.3 Details of the supplier of the safety data sheet

Supplier	Wisabax AG Kleb- und Dichtstoffe	
Address	Grossmatte 21 / Postfach CH-6014 Luzern-Littau	
Phone	+41 (0)41 250 18 18	
Email	info@wisabax.ch	
URL	www.wisabax.ch	
Information contact	Technical Dept. - Mr B. Wicki Environment Dept. - Mrs E. Svets	

1.4 Emergency telephone number

24h emergency number (just possible in switzerland)	Tel. 145	
Tox Info Suisse (ancient swiss toxicological informations centre) For emergencies from all the countries 24h accessible in german, french, italian oder english. For not urgent cases see www.toxinfo.ch.	Tel. +41 (0)44 251 51 51	

2. Hazards identification

2.1 Classification of the substance or mixture according to (EC) Nr. 1272/2008 (CLP).

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2.2 Labelling according to Regulation (EC) Nr. 1272/2008 (CLP)

Pictograms(e)	omitted
Signal word(s)	omitted
Hazard warning(s) [H-statements]	omitted
Safety instruction(s) [P-statements]	omitted
Special marking(s) [EUH-Phrases]	EUH208 Contains: N-(3-(trimethoxysilyl)propyl)ethylenediamine, 3-aminopropyltriethoxysilane, trimethoxyvinylsilane. May produce an allergic reaction. EUH210 Safety data sheet available on request. EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

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2.3 Other hazards

Persons suffering from allergic reactions to this product should avoid contact with de product.

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006.

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006.

3. Composition/information on ingredients

3.1 Substances

This product is a mixture, for more see section 3.2.

3.2 Description of the mixture

Mixture of the substances listed below with harmless additions.

Relevant hazardous substances:

Content: ≥ 2.5 % - < 5 %

CAS No.: 68855-24-3 EG No.: 272-472-8 Index No.: - Reg. No. (REACH): -	benzene, C14-30 alkyl derivatives	Aquatic Chronic 4, H413
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Content: < 2.5 %

CAS No.: 13463-67-7 EG No.: 236-675-5 Index No.: 022-006-002 Reg. No. (REACH): 01-2119489379-17-XXXX	titanium dioxide (homogeneously mixed in pasty or liquid, NOT inhalable form)	Substance with certain legal requirements. [Carc. 2, H351] (inhalative)
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Content: ≥ 1 % - < 2.5 %

CAS No.: 119299-06-8 EG No.: 629-846-4 Index No.: - Reg. No. (REACH): -	siloxanes and Silicones, di-Me, reaction products with N-3-(trimethoxysilyl)propylcyclohexanamine SCL Eye Dam. 1; H318: 1.97% ≤ C < 100% [25/Q106/3]	Skin Irrit. 2, H315; Eye Dam. 1, H318
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Content: ≥ 0.5 % - < 1 %

CAS No.: 2768-02-7 EG No.: 220-449-8 Index No.: 014-049-00-0 Reg. No. (REACH): 01-2119513215-52-XXXX	trimethoxyvinylsilane Further name(s): vinyltrimethoxysilane [25/Q2/2]	Flam. Liq. 3, H226; Acute Tox. 4, H332; Skin Sens. 1B, H317
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Content: ≥ 0.5 % - < 1 %

CAS No.: 1760-24-3 EG No.: 217-164-6 Index No.: - Reg. No. (REACH): 01-2119970215-39-XXXX	N-(3-(trimethoxysilyl)propyl)ethylenediamine Further name(s): 3-(2-aminoethylamino)propyltrimethoxysilane SCL Eye Irrit. 2, H319, 2.5% ≤ C < 3% SCL Skin Sens. 1B, H317, C ≥ 2.5% [25/Q1,106/4,3]	Eye Dam. 1, H318; Skin Sens. 1B, H317; Acute Tox. 4, H332; STOT SE 2, H373
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Content: ≥ 0.1 % - < 0.5 %

CAS No.: 919-30-2 EG No.: 213-048-4 Index No.: 612-108-00-0 Reg. No. (REACH): 01-2119480479-24-XXXX	3-aminopropyltriethoxysilane [25/QE/4]	Acute Tox. 4 (oral), H302; Skin Corr. 1B, H314
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Note: H-phrases and abbreviations are detailed in section 16.

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4. First aid measures

4.1 Description of first aid measures

General information	Observe the general rules of first aid measures. Refresh occasionally your knowledge. If medical advice is required, have this safety data sheet, the packaging or the label ready.
Following inhalation	Remove affected person from the danger area. Supply fresh air. Loosen restrictive clothing. Place in a resting position. Consult a doctor depending on the symptoms. If not breathing provide immediately artificial respiration and obtain medical treatment. In case of unconsciousness bring person in recovery position and take medical advice.
Following skin contact	Remove contaminated clothing immediately. Wash skin with much water and soap. Consult a doctor depending on the symptoms, if possible, show this container or label.
Following eye contact	Rinse open eyes for several minutes under running water. Depending on the symptoms (e.g. redness), consult an ophthalmologist. Remove contact lenses, if present and easy to do.
Following ingestion	Rinse mouth thoroughly with water. Keep airways free. Telephone the emergency number or consult a doctor. If it is possible, present this safety data sheet or product label. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

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4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment

5. Firefighting measures

5.1 Extinguishing media

Always adapt firefighting measures to the surroundings and the size of the fire.

Suitable extinguishing media: Water spray jet, Dry powder fire extinguishers, Alcohol-resistant foam, Carbon dioxide

Unsuitable extinguishing media: Full water jet

5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire:

Carbon oxide (Carbon monoxide, ..), Nitrogen oxide (NOx).

5.3 Advice for fire-fighters

Do not inhale combustion gases.

Wear breathing apparatus with own air supply. Wear full protection depending on fire class.

Use water spray to cool endangered containers.

Dispose contaminated fire extinguishing water according to official directives.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Arrange for sufficient air supply. Avoid eye and skin contact as well as inhalation. Keep away from sources of ignition. No smoking.

6.2 Environmental precautions

Do not empty into drains. Prevent surface and ground-water infiltration, as well as ground penetration.

6.3 Methods and material for containment and cleaning up

Mechanical remove and correct disposal of waste (cf. paragraph 13).

6.4 Reference to other sections

Personal protective equipment see section 8. Waste disposal see section 13.

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7. Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation. If necessary suction measures at the workplace or on the processing machines required. General hygiene measures for the handling of chemicals are applicable. Wash hands before breaks and after work. Attention of the general rules of the preventing operational fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Keep cool Protect the product against moisture. Store only in original container and keep locked up. To avoid the unauthorized and children and kept in a safe place. Recommended storage temperature: 5 – 25°C

7.3 Specific end uses

Sealant - See technical data sheet and the product imprint.

8. Exposure controls/personal protection

8.1 Control parameters

Components with limit values that require monitoring at the workplace:

CAS No.: 13463-67-7 EG No.: 236-675-5 Index No.: 022-006-002 Reg. No. (REACH): 01-2119489379-17-XXXX	titanium dioxide (in powder form with min. 1% particles with aerodynamic diameter <= 10 µm) CH: MAC: 3 mg/m ³ (a) DE: TRHS / TWA: 1.25 mg/m ³ Exp. Factor 2, AGW: 10 mg/m ³ , Exp. Factor 2 <small>[25/Q5.1,S.1/4.2.5]</small>
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Reaction product when crosslinking with humidity.

CAS No.: 67-56-1 EG No.: 200-659-6 Index No.: 603-001-00-X Reg. No. (REACH): 01-2119433307-44-XXXX	methanol CH: MAC: 200 ppm, MAC: 260 mg/m ³ CH: MAC: 100 ppm, MAC: 130 mg/m ³ /8h CH: STEL: 400 ppm, STEL: 520 mg/m ³ EU: TWA: 200 ppm, TWA: 260 mg/m ³ DE: BLV: Urin 15 mg/l end of exposure or end of shift
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MAK = Maximum Workplace Concentration (TLV = Threshold Limit Value)

CH It's a swiss limit, edited by SUVA. If there is no limit from SUVA it's a work place limit (AGW) from Germany or another European state.

CAS No.: 13463-67-7 EG No.: 236-675-5 Index No.: - Reg. No. (REACH): 01-2119489379-17-XXXX	titanium dioxide employee: DNEL: 10 mg/m ³ [inhalative, long-term, local effects]; consumer: DNEL: 700 mg/kg [oral, long-term, systemic effects]; environment: PNEC: 0.184 mg/l [fresh water]; environment: PNEC: 0.0184 mg/l [sea water]; environment: PNEC: 0.193 mg/l [fresh water, sporadic release]; environment: PNEC: 100 mg/l [microorganisms in wastewater treatment plants]; environment: PNEC: 1000 mg/kg dw [sediment, fresh water]; environment: PNEC: 100 mg/kg dw [sediment, seawater]; environment: PNEC: 100 mg/kg dw [soil]; environment: PNEC: 1667 mg/kg feed [oral, feed] <small>[24/Q1/4]</small>
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CAS No.: 2768-02-7 EG No.: 220-449-8 Index No.: 014-049-00-0 Reg. No. (REACH): 01-2119513215-52-XXXX	trimethoxyvinylsilane employee: DNEL: 4.9 mg/m ³ [inhalative, short-term, systemic effects]; employee: DNEL: 0.91 mg/kg [dermal exposure route, long-term, systemic effects]; employee: DNEL: 27.6 mg/kg [inhalative, long-term, systemic effects]; consumer: DNEL: 0.1 mg/kg [dermal exposure route, short-term, systemic effects]; consumer: DNEL: 93.4 mg/m ³ [inhalative, short-term, systemic effects]; consumer: DNEL: 0.63 mg/kg bw/day [dermal exposure route, long-term, systemic effects]; consumer: DNEL: 6.8 mg/m ³ [inhalative, long-term, systemic effects]; consumer: DNEL: 0.63 mg/kg bw/day [oral, long-term, systemic effects]; environment: PNEC: 0.4 mg/l [fresh water]; environment: PNEC: 0.04 mg/l [sea water]; environment: PNEC: 1.21 mg/l [water, sporadic release];
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	<p>environment: PNEC: 6.6 mg/l [microorganisms in wastewater treatment plants]; environment: PNEC: 0.29 mg/kg [sediment, fresh water]; environment: PNEC: 0.15 mg/kg [sediment, seawater]; environment: PNEC: 0.048 mg/kg [soil] ^[25/Q2/5]</p>
<p>CAS No.: 1760-24-3 EG No.: 217-164-6 Index No.: - Reg. No. (REACH): 01-2119970215-39-XXXX</p>	<p>N-(3-(trimethoxysilyl)propyl)ethylenediamine consumer: DNEL: 2.5 mg/kg [oral, long-term, systemic effects]; consumer: DNEL: 50 mg/m³ [inhalative, short-term, systemic effects]; consumer: DNEL: 0.1 mg/m³ [inhalative, long-term, local effects]; consumer: DNEL: 4 mg/m³ [inhalative, short-term, local effects]; consumer: DNEL: 2.5 mg/kg bw/d [oral, short-term, systemic effects]; consumer: DNEL: 8.7 mg/m³ [inhalative, long-term, systemic effects]; consumer: DNEL: 2.5 mg/m³ [dermal exposure route, long-term, systemic effects]; employee: DNEL: 35.5 mg/m³ [inhalative, long-term, systemic effects]; employee: DNEL: 5.0 mg/kg bw/d [dermal exposure route, long-term, systemic effects]; employee: DNEL: 0.6 mg/m³ [inhalative, long-term, local effects]; employee: DNEL: 260 mg/m³ [inhalative, short-term, systemic effects]; employee: DNEL: 5.36 mg/m³ [inhalative, short-term, local effects]; environment: PNEC: 0.062 mg/l [fresh water]; environment: PNEC: 0.0062 mg/l [sea water]; environment: PNEC: 0.05 mg/kg [sediment, fresh water]; environment: PNEC: 0.005 mg/kg [sediment, seawater]; environment: PNEC: 0.62 mg/l [sporadic (intermittent) release]; environment: PNEC: 25 mg/l [Mikroorganismen in Kläranlagen]; environment: PNEC: 0.009 mg/kg [soil] ^[25/Q2/2]</p>
<p>CAS No.: 67-56-1 EG No.: 200-659-6 Index No.: 603-001-00-X Reg. No. (REACH): 01-2119433307-44-XXXX</p>	<p>methanol employee: DNEL: 20 mg/kg bw/d [dermal exposure route, short-term, systemic effects]; employee: DNEL: 130 mg/m³ [inhalative, short-term, systemic effects]; employee: DNEL: 130 mg/m³ [inhalative, short-term, local effects]; employee: DNEL: 20 mg/kg bw/d [dermal exposure route, long-term, systemic effects]; employee: DNEL: 130 mg/m³ [inhalative, long-term, systemic effects]; employee: DNEL: 130 mg/m³ [inhalative, long-term, local effects]; consumer: DNEL: 4 mg/kg bw/d [dermal exposure route, short-term, systemic effects]; consumer: DNEL: 26 mg/m³ [inhalative, short-term, systemic effects]; consumer: DNEL: 4 mg/kg bw/d [oral, short-term, systemic effects]; consumer: DNEL: 4 mg/kg [dermal exposure route, long-term, systemic effects]; consumer: DNEL: 26 mg/m³ [inhalative, short-term, local effects]; consumer: DNEL: 26 mg/m³ [inhalative, long-term, local effects]; consumer: DNEL: 26 mg/m³ [inhalative, long-term, systemic effects]; consumer: DNEL: 4 mg/kg bw/d [oral, long-term, systemic effects]; environment: PNEC: 154 mg/l [fresh water]; environment: PNEC: 15.4 mg/l [sea water]; environment: PNEC: 570.4 mg/kg [sediment, fresh water]; environment: PNEC: 57.04 mg/kg [sediment, seawater]; environment: PNEC: 23.5 mg/kg [soil]; environment: PNEC: 1540 mg/l [water, sporadic release]; environment: PNEC: 100 mg/l [microorganisms in wastewater treatment plants] ^[25/Q2/5]</p>
<p>8.2 Exposure controls</p> <p>8.2.1 Appropriate engineering controls Ensure good ventilation, e.g. by local suction, general exhaust air. Minimize the risk of inhalations of vapours. Comply with the workplace exposure limits. If limits can't be adhered to, use appropriate respiratory protection.</p> <p>8.2.2 Personal protective equipment</p>	

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General data	Select personal protective equipment according to the CEN standards; discuss protective equipment with the supplier.
Eye/face protection	During refilling or if possible contact with the eyes, goggles recommended.
Hand-/Body protection	Avoid contact with your skin. If it's not available wear appropriate gloves.
Protective clothing	Wear suitable protective clothing, e.g long-sleeved clothes and safety shoes according to EN ISO 20345.
Respiratory protection	Normally not needed. Comply with the workplace exposure limits. In case of insufficient ventilation or if limit values cannot be complied, use air respirator. Filters type AXBEK in accordance with EN 14387. Follow the wear time limits for breathing apparatus.
Hygiene measures	General hygiene measures for the handling of chemicals are applicable. Do not eat, drink or smoke while at work. Wash hands before breaks and after work.
Thermal hazards	Not applicable.

	On the basis of the contents and our experience the following non-binding recommendations for the selection of the material of the protective gloves (minimum layer thickness: 0.4 mm):
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Recommended glove material:	Nitrile rubber/Nitrile latex (NBR), Butyl rubber (Butyl), Polyvinyl chloride (PVC), Flourinated rubber (FKM)
Inappropriate glove material:	Textile Materials

The selection of suitable depends upon the material, and also upon the quality of the gloves. The degree of protection will vary from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the materials used for gloves cannot be predetermined; it is therefore necessary to check this before using the product.
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

8.2.3 Environmental exposure controls
More information that is detailed is not available yet.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Pasty
Colour	various colours
Density	1.22 g/cm ³ 25°C
Viscosity kinematic	Ca. 3'700 mm ² /s
Viscosity dynamic	Ca. 4'500 mPa*s
Odour	Characteristic
Odour threshold	Not determined
pH-level	Immiscible with water
Melting point/freezing point	Not determined
Initial boiling point/boiling range	N-(3-(trimethoxysilyl)propyl)ethylenediamine: 140 °C trimethoxyvinylsilane: 123 °C titanium dioxide: 3000 (2500 - 3000) °C
Decomposition temperature	Not determined
Rate of evaporation	Not determined
Flashpoint	N-(3-(trimethoxysilyl)propyl)ethylenediamine: 98 °C Atm. Press.: 101.3 kPa; trimethoxyvinylsilane: 24.5 °C
Auto-ignition temperature	>235 °C
Lower explosive limits	Not determined
Upper explosive limits	Not determined
Vapour pressure	N-(3-(trimethoxysilyl)propyl)ethylenediamine: 0.4 Pa (20 °C) 3-aminopropyltriethoxysilane: 1.7 – 2 Pa trimethoxyvinylsilane: 11.9 hPa

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Vapour density (Air = 1)	Not determined
Explosive properties	The product is not explosive.
Oxidising properties	No

9.2 Other information

Solubility in / Miscibility with water.	Immiscible with water
Solubility in / Miscibility in	Not determined
Partition coefficient n-Octanol/Water	Not determined
Conductivity	Insulating
VOC-content (EU)	0 %
VOC-content (CH)	0 %

10. Stability and reactivity

10.1 Reactivity

The product is not reactive under normal conditions.

10.2 Chemical stability

The product is stable when properly stored and handled.

10.3 Possibility of hazardous reactions

No effects are known if used as intended.

10.4 Conditions to avoid

No effects are known if used as intended.

10.5 Incompatible materials

No known.

10.6 Hazardous decomposition products

Under appropriate handling and under influence of humidity are released small quantities of ethanol and methanol. In case of fire or very high heat can i.a. the following hazardous decomposition products are formed: Carbon oxide (Carbon monoxide, ..), Nitrogen oxide (NOx).

11. Toxicological information

11.1 Information on toxicological effects

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11.2. Toxicological information of hazardous ingredients

CAS No.: 68855-24-3 EG No.: 272-472-8 Index No.: - Reg. No. (REACH): -	benzene, C14-30 alkyl derivatives acute toxicity: LD50: > 5000 mg/kg [oral, rat]; acute toxicity: LD50: > 3000 mg/kg [dermal exposure route, rabbit] [25/Q106/3]
CAS No.: 13463-67-7 EG No.: 236-675-5 Index No.: - Reg. No. (REACH): 01-2119489379-17-XXXX	titanium dioxide acute toxicity: LD50: >10000 mg/kg [oral, rat, OECD 425]; acute toxicity: LD50: >5000 mg/kg [dermal exposure route, rabbit]; acute toxicity: LC50: >5.09 mg/l/4h [inhalative, rat]; corrosive/irritant effect on the skin: non-irritant [dermal exposure route, rabbit, OECD 404]; serious eye damage/irritation: non-irritant, mechanical irritation possible [rabbit, OECD 405]; respiratory/skin sensitization: not sensitising [Guinea pig, OECD 406]; germ cell mutagenicity: negative [mouse, OECD 474 (Mammalian Erythrocyte Micronucleus Test)]; germ cell mutagenicity: negative [mammals, OECD 473 (In Vitro Mammalian Erythrocyte Chromosome Aberration Test)]; germ cell mutagenicity: negative [salmonella typhimurium, (Ames test)]; germ cell mutagenicity: negative [OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)]; germ cell mutagenicity: negative [OECD 471 (Bacterial Reverse Mutation Test)];

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	<p>carcinogenicity: EU: Carc. 2 (inhalation), H351, only applies in powder form with min. 1% particles with aerodynamic diameter \leq 10 μm; not valid in case of homogeneously mixed in pasty or liquid, NOT inhalable form); persistence and degradability: poorly biodegradable; specific target organ toxicity - repeated exposure (STOT RE): NOAEL: 3500 mg/kg/90d [rat]; specific target organ toxicity - repeated exposure (STOT RE): NOAEC: 10 mg/m³/90d [rat]; symptoms: mucous membrane irritation, cough, shortness of breath, drying of the skin [24/Q1,2/4]</p>
<p>CAS No.: 2768-02-7 EG No.: 220-449-8 Index No.: 014-049-00-0 Reg. No. (REACH): 01-2119513215-52-XXXX</p>	<p>trimethoxyvinylsilane acute toxicity: LD50: 7120 mg/kg [oral, rat, OECD 401]; acute toxicity: LC50: 16.8 mg/l/4h [inhalative, rat, OECD TG 403, vapours]; acute toxicity: ATE: 16.8 mg/l/4h [inhalative, vapours, OECD TG 403]; acute toxicity: LD50: 2773 ppm/4h [inhalative, rat, OECD TG 403]; acute toxicity: LD50: 3200 mg/kg [dermal exposure route, rabbit, OECD 402]; acute toxicity: ATE: 1.5 mg/l/4h [inhalative, dust / fog]; acute toxicity: NOAEL: 200 mg/kg/90d bw/d [oral, rat]; corrosive/irritant effect on the skin: non-irritant [rabbit, dermal exposure route, OECD 404]; serious eye damage/irritation: non-irritant [rabbit, OECD 405]; respiratory/skin sensitization: sensitising [Guinea pig, dermal exposure route, OECD 406, Skin Sens. 1B]; germ cell mutagenicity: negative [OECD 476, In Vitro Mammalian Cell Gene Mutation Test]; germ cell mutagenicity: negative [mouse, OECD 474, Mammalian Erythrocyte Micronucleus Test]; germ cell mutagenicity: negative [rat, OECD 489, In Vitro Mammalian Alkaline Comet Assay]; germ cell mutagenicity: negative [Salmonella typhimurium, OECD 471, Bacterial Reverse Mutation Test]; reproductive toxicity: NOAEL: 1000 mg/kg, negative [rat, OECD 422] reproductive toxicity (developmental effects): NOAEL: \geq 75 mg/kg, negative [rabbit, OECD 414]; specific target organ toxicity - repeated exposure (STOT RE): NOAEL: 62.5 mg/kg/90d [rat, oral, OECD 408, vapours, target organ(s): bladder]; specific target organ toxicity - repeated exposure (STOT RE): NOAEL: 0.058 mg/kg/90d [rat, inhalative, OECD 413, vapours]; carcinogenicity: negative; symptoms: drowsiness, dizziness, nausea, abdominal pain, breathing difficulties, visual disturbances [25/Q1,2/4,5]</p>
<p>CAS No.: 1760-24-3 EG No.: 217-164-6 Index No.: - Reg. No. (REACH): 01-2119970215-39-XXXX</p>	<p>N-(3-(trimethoxysilyl)propyl)ethylenediamine acute toxicity: LD50: 2295 mg/kg [oral, rat]; acute toxicity: LD50: >2000 mg/kg [dermal exposure route, rat]; acute toxicity: LD50: >2000 mg/kg [dermal exposure route, rabbit]; acute toxicity: LD50: 1.49 - 2.44 mg/kg [dermal exposure route, rat, OECD 403]; acute toxicity: LC50: 1.5 - 2.44 mg/l/4h [inhalative, aerosol, dust/fog]; corrosive/irritant effect on the skin: non-irritant [rabbit, OECD 404]; serious eye damage/irritation: Eye Dam. 1 [rabbit, OECD 405]; respiratory/skin sensitization: Skin Sens. 1B [Guinea pig, OECD 406]; respiratory/skin sensitization: Skin Sens. 1B [mouse, OECD 429]; germ cell mutagenicity: negative [Salmonella typhimurium, OECD 471]; germ cell mutagenicity: negative [Chinese hamster, OECD 476, In Vitro Mammalian Cell Gene Mutation Test]; germ cell mutagenicity: negative [mouse, OECD 474, Mammalian Erythrocyte Micronucleus Mutation Test]; reproductive toxicity (developmental effects): NOAEL: \geq 500 mg/kg [rat, OECD 422]; reproductive toxicity (effects on fertility): NOAEL: \geq 500 [rat, OECD 422]; specific target organ toxicity - repeated exposure (STOT RE): NOAEL: \geq 500 mg/kg [oral, rat, OECD 422]; specific target organ toxicity - repeated exposure (STOT RE): NOAEL: 0.015 mg/l/6h/d [inhalative, rat, OECD 413];</p>

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persistence and degradability: poorly biodegradable [24/Q1,106/4]	
<p>CAS No.: 919-30-2 EG No.: 213-048-4 Index No.: 612-108-00-0 Reg. No. (REACH): 01-2119480479-24-XXXX</p>	<p>3-aminopropyltriethoxysilane acute toxicity: LD50: 1780 ml/kg [oral, rat, female, OECD 401]; acute toxicity: LD50: 2700 ml/kg [oral, rat, males, OECD 401]; acute toxicity: LD50: 3800 ml/kg [dermal exposure route, rabbit, TOXNET]; acute toxicity: LC50: >5 ppm [inhalative, rat, males]; acute toxicity: NOAEL: >43.8 mg/kg/2y/bd [oral, rat, males]; acute toxicity: Kat. 1B, SCL; cat. 21, 5%; cat. 2, 1%; respiratory/skin sensitization: Kat. 1, SCL; cat. 1, 1%; specific target organ toxicity - repeated exposure (STOT RE): LOAEL: 600 mg/kg/bw/d/90d [oral, rat] [25/Q106, 902/3,4]</p>
<p>CAS No.: 67-56-1 EG No.: 200-659-6 Index No.: 603-001-00-X Reg. No. (REACH): 01-2119433307-44-XXXX</p>	<p>methanol acute toxicity: ATE: 100 mg/kg [oral, human]; acute toxicity: LD50: 17100 mg/kg [dermal exposure route, rabbit]; acute toxicity: ATE: 300 mg/kg [dermal exposure route]; acute toxicity: ATE: 3 mg/l/4h [inhalative, vapours]; acute toxicity: ATE: 0.5 mg/l/4h [inhalative, dust/fog]; corrosive/irritant effect on the skin: non-irritant [rabbit, BASF-Test]; serious eye damage/irritation: non-irritant [rabbit, OECD 405]; respiratory/skin sensitization: not sensitising (skin contact) [Guinea pig, OECD 406]; germ cell mutagenicity: negative [Salmonella typhimurium, OECD 471, Bacterial Reverse Mutation Test]; germ cell mutagenicity: negative [mammals, OECD 476]; germ cell mutagenicity: negative [mouse, OECD 474, Mammalian Erythrocyte Micronucleus Test]; carcinogenicity: negative [mouse, OECD 453, Combined Chronic Toxicity/Carcinogenicity Studies]; reproductive toxicity: NOAEL: 1.3 mg/l [mouse, OECD 416, Two-generation Reproduction Toxicity Study]; specific target organ toxicity - repeated exposure (STOT RE): NOAEL: 0.13 mg/l [mouse, OECD 453, Combined Chronic Toxicity/Carcinogenicity Studies]; symptoms: abdominal pain, vomiting, headaches, gastrointestinal complaints, drowsiness, visual disturbances, tearing of the eyes, nausea, confusion, intoxication, dizziness [25/Q2/1,5]</p>
Classification of the respective hazardous components see section 3.	

12. Ecological information

12.1 Toxicity

Aquatic toxicity Germany (Self-classification)	WGK 3 Highly hazardous to water
The product/mixture is not classified as hazardous to the aquatic environment – acute.	
The product/mixture is not classified as hazardous to the aquatic environment – chronic.	
The product is not classified as dangerous for the environment.	

12.2 Persistence and degradability

The product is not biodegradable.

12.3 Bioaccumulative potential

Any bioaccumulation potential.

12.4 Mobility in soil

No information is available.

12.5 Results of PBT and vPvB assessment

See section 2.3.

12.6 Other adverse effects

Do not allow product to reach ground water, water course or sewage system.

12.7 Additional ecotoxicological information

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<p>CAS No.: 13463-67-7 EG No.: 236-675-5 Index No.: - Reg. No. (REACH): 01-2119489379-17-XXXX</p>	<p>titanium dioxide acute toxicity, fish: LC50: >100 mg/l/96h [Oncorhynchus mykiss, OECD 203]; acute toxicity, daphnia: LC50: >100 mg/l/48h [Daphnia magna, OECD 202]; acute toxicity, crustaceans: LC50: 19.3 mg/l/48h [Daphnia magna]; acute toxicity, algae: EC50: 16 mg/l/72h [Pseudokirchneriella subcapitata, U.S. EPA600/9-78-018]; acute toxicity, algae: NOEC: ≥2.92 mg/l/21d [chronic]; acute toxicity, algae: NOEC: 5600 mg/l/72h [chronic]; persistence and degradability: poorly biodegradable; bioaccumulative potential: BCF: 9.6/42d, is not to be expected; bioaccumulative potential: BCF: 19-352/14d [Oncorhynchus mykiss]; mobility in soil: negative; results of PBT and vPvB assessment: no PBT substance, no vPvB substance; acute bacteriotoxicity: >5000 mg/l [Escherichia coli]; acute bacteriotoxicity: LC0: >10000 mg/l/24h [Pseudomonas fluorescens]; acute bacteriotoxicity: >5000 mg/l [Pseudomonas fluorescens]; annelid worm toxicity: NOEC/NOEL: >1000 mg/kg [Eisenia foetida]; water solubility: insoluble 20°C [24/Q1.2,106/4,3]</p>
<p>CAS No.: 2768-02-7 EG No.: 220-449-8 Index No.: 014-049-00-0 Reg. No. (REACH): 01-2119513215-52-XXXX</p>	<p>trimethoxyvinylsilane acute toxicity, fish: LC50: 191 mg/l/96h [Oncorhynchus mykiss]; acute toxicity, algae: EC50: >957 mg/l/72h [Desmodesmus subspicatus, EU Method C.3]; acute toxicity, algae: ErC50: >100 mg/l/72h [OECD 201]; acute toxicity, crustaceans: EC50: 168.7 mg/l/48h [Daphnia magna]; acute toxicity, crustaceans: NOEC: 28.1 mg/l [chronic]; acute toxicity, algae: NOEC: 25 mg/l [chronic]; persistence and degradability: 104 mg/l, 51%/28d, manometric respiration test, BSB (biochemical oxygen demand (BOD)) [OECD 301 F]; bioaccumulative potential: partition coefficient: 1.1 results of PBT and vPvB assessment: no PBT substance, no vPvB substance mobility in soil: slight [24/Q1.5,106/4,3]</p>
<p>CAS No.: 1760-24-3 EG No.: 217-164-6 Index No.: - Reg. No. (REACH): 01-2119970215-39-XXXX</p>	<p>N-(3-(trimethoxysilyl)propyl)ethylenediamine acute toxicity, fish: LC50: 597 mg/l/96h [Brachydanio rerio]; acute toxicity, daphnia: NOEC/NOEL: >1 mg/l/21d [Daphnia magna, OECD 211]; acute toxicity, daphnia: EC50: 81 mg/l/48h [Daphnia magna, OECD 202]; acute toxicity, algae: EC50: 8.8 mg/l/72h [Pseudokirchneriella subcapitata, OECD 201]; acute toxicity, algae: NOEC/NOEL: 3.1 mg/l/72h [Pseudokirchneriella subcapitata, OECD 201]; persistence and degradability: 39%/28d, poorly biodegradable [activated sludge, OECD 301A]; bioaccumulative potential: low, partition coefficient: -0.3; mobility in soil: slight; results of PBT and vPvB assessment: no PBT substance, no vPvB substance; acute bacteriotoxicity: EC10: 25 mg/l/16h [Pseudomonas putida, DIN 38412]; other organisms: NOEC/NOEL: ≥1000 mg/kg/14d [Eisenia foetida, OECD 207] [25/Q1.5,2/4,3,2]</p>
<p>CAS No.: 919-30-2 EG No.: 213-048-4 Index No.: 612-108-00-0 Reg. No. (REACH): 01-2119480479-24-XXXX</p>	<p>3-aminopropyltriethoxysilane acute toxicity, fish: LC50: >934 mg/l/96h [Brachydanio rerio, ECHA]; acute toxicity, algae: ErC50: >1000 mg/l/72h [Desmodesmus subspicatus, ECHA]; acute toxicity, algae: NOEC: 1.3 mg/l/72h [Desmodesmus subspicatus]; acute toxicity, algae: EC50: >100 mg/l/72h [Pseudokirchneriella subcapitata]; acute toxicity, crustaceans: EC50: 331 mg/l/48h [Daphnia magna]; bioaccumulative potential: Log Pow: 0.31, BCF: 3.4, Log KOW: 1.7; persistence and degradability: 67%/28d, poorly biodegradable [OECD 301A] [25/Q61,106,902/3,4]</p>
<p>CAS No.: 67-56-1 EG No.: 200-659-6</p>	<p>methanol acute toxicity, fish: LC50: 15400 mg/l/96h [Lepomis macrochirus];</p>

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<p>Index No.: 603-001-00-X Reg. No. (REACH): 01-2119433307-44-XXXX</p>	<p>acute toxicity, daphnia: EC50: >18260 mg/l/48h [Daphnia magna, OECD202]; acute toxicity, algae: EC50: 2200 mg/l/96h [Pseudokirch neriella subcapitata, OECD 201 (Alga, Growth Inhibition Test)]; persistence and degradability: 99 mg/l/28d, easily biodegradable [OECD 301 D (Ready Biodegradability – Closed Bottle Test)]; bioaccumulative potential: BCF: 28400, is not to be expected [Chlorella vulgaris]; results of PBT and vPvB assessment: no PBT substance, no vPvB substance; acute bacteriotoxicity: IC50: >1000 mg/l/3h [activated sludge, OECD 209, Respiration Inhibition Test (Carbon and Ammonium Oxidation)]; other information: [Log Pow: -0.77, low (σ 2.355E-2N/m, 25 °C), DOC: <70%; BOD >60%] [25/Q2/5]</p>
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13. Disposal considerations

13.1 Waste treatment methods

Waste disposal according to official state regulations.

<p>Waste treatment options: 08 04 09 – Waste adhesives and sealants containing organic solvents or other dangerous substances.</p>
<p>Contaminated packages: Disposal must be made according to official regulations. If possible empty packaging completely. CH: After complete hardening, product can be disposed of with domestic waste. Packagings that cannot be cleaned are to be disposed off in the same manner as the product. Alternatively, it can be used if necessary following waste code: 15 01 10 – Packing that contains the residues of hazardous materials or is contaminated through hazardous materials.</p>
<ul style="list-style-type: none"> The waste code numbers mentioned are recommendations based on the probable use of the product. The particular application and local disposal situation obtaining for the user may lead to other waste codes being assigned as well. Switzerland: Following regulation in the latest valid constitution must be observed: Technical regulation on waste (TVA, SR 814.600), regulation for waste processing (VeVa, SR 814.610) and in the regulation of UVEK concerning lists for handling waste (LVA, SR 814.610.1).

14. Transport information

14.1 UN-Number:

ADR, RID, ADN, IMDG, IATA: Not applicable

14.2 UN proper shipping name

ADR, RID, ADN, IMDG, IATA: Not applicable

14.3 Transport hazard class(es):

ADR, RID, ADN, IMDG, IATA: Not applicable

14.4 Packing group:

ADR, RID, ADN, IMDG, IATA: Not applicable

14.5 Environmental hazards:

Dangerous to the environment: No / Marine pollutant: No

14.6 Special precautions for user:

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Inapplicable

14.8 Additional information:

UN „Model Regulation“:	Inapplicable
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15. Regulatory information

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

Classification and labelling see section 2. Classification of the preparation has been done by calculation or based on studies/test on the product itself or experience with similar mixtures.

Further national and further regulations, limitations and legal requirements

VOC content according to swiss VOC regulation (VOCV) see section 9.2.

Water hazard class (WGK) see section 12.1.

Chemicals regulation (ChemV), ordinance on chemicals risk reduction (ChemRRV), Luftreinhalte-Verordnung (LRV), Ordinance on protection against major accidents (StFV), professional association principles/industrial medicine regulations

15.2 Chemical Safety Assessment

A chemical safety assessment is not provided for mixtures.

16. Other information

Hazards used in the document (H-phrases):

H226 Flammable liquid and vapour
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H351 May probably cause cancer.
H373 May cause damage to organs through prolonged or repeated exposure through inhalation (airways).
H413 May cause long lasting harmful effects to aquatic life.

Other recommended sources for more information:

- Federal Office of Public Health (Switzerland): www.bag.admin.ch (German/French/Italian/English)

List of relevant abbreviations that may be used in the document:

Abbreviation	Full text / Meaning
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route (= European agreement concerning the international carriage of dangerous goods by road)
AGW, Spb.-Üf.	AGW = Arbeitsplatzgrenzwert (occupational limit value), Spb.-Üf. = Spitzenbegrenzung (peak limit) – Überschreitungsfaktor (exceedance factor) (1 bis 8) and category (I, II) for short-term values (TRGS 900, Germany)
AOEL	Acceptable Operator Exposure Level
Aquatic Acute	Hazardous to the aquatic environment - Acute
Aquatic Chronic	Hazardous to the aquatic environment – Chronic
Asp. Tox.	Aspiration hazard (Danger when inhaling)
ATE	Acute Toxicity Estimates
BAG	Office for health (Bundesamt für Gesundheit, Schweiz)
BAT	Biological tolerance values at the workplace (Biologische Arbeitsstofftoleranzwerte, Schweiz)
BG	Trade association (Berufsgenossenschaft)
BGR	Trade association regulations (Berufsgenossenschaftliche Regeln)
BGV	Trade association regulations (Berufsgenossenschaftliche Vorschrift)
Carz.	Carcinogenic substance
CAS-Nr.	Chemical Abstracts Service
CH	Swiss confederation (from the latin Confoederatio Helvetica)
CH: MAK:	Swiss limit of maximum allowable concentration, issued by the Swiss accident insurance fund. (Schweizerischen Unfallversicherungsanstalt (SUVA))
CLP	Classification, Labelling and Packaging (REGULATION (EG) Nr. 1272/2008)
CPID	Chemical Product Identification.
DMEL	Derived Minimum Effect Level
DNEL	Derived No Effect Level
EG-Nr.	Substances of the EC material inventory, consisting of 7 digits (Syntax: XXX-XXX-X). Comprises waste materials (EINECS), new substances (ELINCS) as well as the No-Longer-Polymers-Liste (NLP-Liste).
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
Eye Irrit.	Eye irritant, depending on the category Eye irritation possible to serious eye damage.
Flam. Gas	Flammable gas
Flam. Liq.	Flammable liquid
Flam. Sol.	Flammable solid
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IATA	International Air Transport Association
IMDG-Code	International Maritime Code for Dangerous Goods

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Index-Nr.	Indexation of dangerous substances of appendix 5 in the VO(EG)1272/2008 (or annex I of directive 67/548/EWG) with the following syntax: XXX-XXX-XX-X
LC	Lethal concentration
LD	Lethal (fatal) dose
LD50	Lethal dose, 50%
Met. Corr.	On metal corrosive acting substance or mixture
Muta.	Substance with germ cell mutagenicity
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
NOEL	No Observed Effect Level
Ozone	Hazardous for the ozone layer
PBT	Persistent, bioaccumulative, and toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (Verordnung (EG) Nr. 1907/2006 zur Registrierung, Bewertung, Zulassung und Beschränkung chemischer Stoffe)
Repr.	Reproductive toxicity
Resp. Sens.	Sensitising for respiratory tract
SCL	Specific concentration limits
Skin Irrit.	Skin irritant – corrosive/irritant to skin
Skin Sens.	Sensitising for the skin
STOT RE	Specific target organ toxicity – repeated exposure
STOT SE	Specific target organ toxicity – single exposure
TRGS	Technical rules on hazardous substances
VOC	Volatile organic compounds
VOCV	VOC-regulation (Swiss)
vPvB	Very persistent and very bioaccumulative

Department issuing data specification sheet: See section 1.3.
This safety data sheet replaces all previous versions.

Disclaimer: The specifications rest on the today's stand of our knowledge. It does not constitute a legally binding assurance of specific product properties.

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