Ramsauer GmbH & Co KG 5350 Strobl / Wolfgangsee

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|---|---|--|-------------|--|
| SECTION 1: Identification of the substance/mixture and of the company/undertaking | | | | |
| 1.1 Product identifier | | | | |
| | | Anschlussfuge 315 | | |
| 1.2 | Relevant identified uses of the | substance or mixture and uses advised against | | |
| 1.2.1 | I Relevant uses | | | |
| | | Silicon | | |
| 1.2.2 | 2 Uses advised against | | | |
| | Ū | None known. | | |
| 1.3 | Details of the supplier of the sa | afety data sheet | | |
| | Company | Ramsauer GmbH & Co KG Alte Bundesstraße 147 5350 Strobl / Wolfgangsee / AUSTRIA Phone +43 (0)6135 8205 0 Fax +43 (0)6135 8205-250 Homepage www.ramsauer.eu E-mail office@ramsauer.eu | | |
| | Address enquiries to | | | |
| | Technical information | office@ramsauer.eu | | |
| | Safety Data Sheet | sdb@chemiebuero.de (No dispatch of safety data sheets) | | |
| | | Safety data sheets are available from the supplier. | | |
| 1.4 | Emergency telephone number | | | |
| | Advisory body | +43 (0) 1 406 43 43 (24h) | | |
| SEC | TION 2: Hazards identification | | | |
| 2.1 | Classification of the substance | or mixture [REGULATION (EC) No 1272/2008] | | |
| | | Eye Irrit. 2: H319 Causes serious eye irritation. | | |
| 2.2 | Label elements | | | |
| | | The product is required to be labelled in accordance with regulation CLP. | | |
| | Hazard pictograms | | | |
| | Signal word | WARNING | | |
| | Hazard statements | H319 Causes serious eye irritation. | | |
| | Precautionary statements | P280 Wear eye protection / face protection. | | |
| | Special labelling | Contains: N-[3-(Trimethoxysilyl)propyl]ethylenediamine, 3-Aminopropyltriethoxys EUH208 May produce an allergic reaction. | silane. | |
| 2.3 | Other hazards | | | |
| | Human health dangers | Contact with moisture liberates Methanol and Ethanol. | | |
| | Environmental hazards | Does not contain any PBT or vPvB substances. Contains no ingredients with endocrine-disrupting properties. | | |
| | Other hazards | Further hazards were not determined with the current level of knowledge. | | |
| 050 | TION 3: Composition / Informati | on on ingredients | | |

3.1 Substances

not applicable

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3.2 Mixtures

The product is a mixture.

| Range [%] | Substance |
|-----------|---|
| 1 - <3 | Tetraethyl silicate |
| L | CAS: 78-10-4, EINECS/ELINCS: 201-083-8, EU-INDEX: 014-005-00-0, Reg-No.: 01-2119496195-28-XXXX |
| | GHS/CLP: Flam. Liq. 3: H226 - Acute Tox. 4: H332 - Eye Irrit. 2: H319 - STOT SE 3: H335 |
| 1 - <2 | N-[3-(Trimethoxysilyl)propylcyclohexylamine] |
| L | CAS: 3068-78-8, EINECS/ELINCS: 221-329-8 |
| | GHS/CLP: Eye Dam. 1: H318 |
| 1 - <2 | 3-Aminopropyl(methyl) silsesquioxanes, ethoxy-terminated |
| L | CAS: 128446-60-6, EINECS/ELINCS: Polymer |
| | GHS/CLP: Flam. Liq. 3: H226 - Skin Irrit. 2: H315 - Eye Dam. 1: H318 |
| 0.1 - <1 | N-[3-(Trimethoxysilyl)propyl]ethylenediamine |
| | CAS: 1760-24-3, EINECS/ELINCS: 217-164-6 |
| | GHS/CLP: Skin Sens. 1B: H317 - Eye Dam. 1: H318 - STOT SE 3: H335 |
| 0.1 - <1 | 3-Aminopropyltriethoxysilane |
| | CAS: 919-30-2, EINECS/ELINCS: 213-048-4, EU-INDEX: 612-108-00-0, Reg-No.: 01-2119480479-24-XXXX |
| | GHS/CLP: Acute Tox. 4: H302 - Skin Corr. 1B: H314 - Eye Dam. 1: H318 - Skin Sens. 1: H317 |

Comment on component parts

SECTION 4: First aid measures

4.1 Description of first aid measures

| General information | Take off contaminated clothing and wash before reuse. |
|--------------------------------|---|
| Inhalation | Ensure supply of fresh air. In the event of symptoms seek medical treatment. |
| Skin contact | When in contact with the skin, clean with soap and water. Consult a doctor if skin irritation persists. |
| Eye contact | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| Ingestion | Seek medical advice immediately. |
| Most important symptoms and ef | fects, both acute and delayed |
| | Irritant effects |
| | General information Inhalation Skin contact Eye contact |

For full text of H-statements: see SECTION 16.

Allergic reactions

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

| Suitable extinguishing media | Foam. Dry powder. Water spray jet. Carbon dioxide. |
|--|---|
| Extinguishing media that must not be used | Full water jet. |

5.2 Special hazards arising from the substance or mixture

In the event of fire the following can be released: Carbon monoxide (CO) Nitrogen oxides (NOx).

Ramsauer GmbH & Co KG 5350 Strobl / Wolfgangsee Date printed 02.11.2023, Revision 02.11.2023 Version 1.0 Page 3 / 14 5.3 Advice for firefighters Use self-contained breathing apparatus. Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations. SECTION 6: Accidental release measures Personal precautions, protective equipment and emergency procedures 6.1 Ensure adequate ventilation. High risk of slipping due to leakage/spillage of product. Use personal protective equipment (protective gloves, safety glasses, protective clothing). 6.2 Environmental precautions Do not discharge into the drains/surface waters/groundwater. In case the product spills into drains/surface waters/groundwater, immediately inform the authorities. Methods and material for containment and cleaning up 6.3 Take up mechanically. Take up residues with absorbent material (e.g. sand, sawdust, general purpose binder, diatomaceous earth). Dispose of absorbed material in accordance within the regulations. Reference to other sections 6.4 See SECTION 8+13 SECTION 7: Handling and storage 7.1 Precautions for safe handling Use only in well-ventilated areas. Wash hands before breaks and after work. Use barrier skin cream. Take off contaminated clothing and wash before reuse. 7.2 Conditions for safe storage, including any incompatibilities Keep only in original container. Prevent penetration into the ground. Do not store together with food and animal food/diet. Keep in a cool place. Store in a dry place. Protect from heat/overheating. 7.3 Specific end use(s) See product use, SECTION 1.2

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SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored EU (2004/37/EG)

 Substance / EC LIMIT VALUES

 Tetraethyl silicate

 CAS: 78-10-4, EINECS/ELINCS: 201-083-8, EU-INDEX: 014-005-00-0, Reg-No.: 01-2119496195-28-XXXX

 Eight hours: 5 ppm, 44 mg/m³

 Methanol

 CAS: 67-56-1, EINECS/ELINCS: 200-659-6, EU-INDEX: 603-001-00-X, Reg-No.: 01-2119433307-44-XXXX

 Eight hours: 200 ppm, 260 mg/m³, H

DNEL

| Substance | |
|---|--|
| etraethyl silicate, CAS: 78-10-4 | |
| ndustrial, inhalative, Acute - systemic effects, 85 mg/m ³ | |
| ndustrial, inhalative, Acute - local effects, 85 mg/m ³ | |
| ndustrial, dermal, Long-term - systemic effects, 12.1 mg/kg bw/d | |
| ndustrial, inhalative, Long-term - local effects, 85 mg/m ³ | |
| ndustrial, inhalative, Long-term - systemic effects, 85 mg/m ³ | |
| ndustrial, dermal, Acute - systemic effects, 12.1 mg/kg bw/d | |
| eneral population, dermal, Acute - systemic effects, 8.4 mg/kg bw/d | |
| eneral population, inhalative, Acute - local effects, 25 mg/m³ | |
| eneral population, inhalative, Acute - systemic effects, 25 mg/m ³ | |
| eneral population, inhalative, Long-term - local effects, 25 mg/m ³ | |
| eneral population, inhalative, Long-term - systemic effects, 25 mg/m ³ | |
| eneral population, dermal, Long-term - systemic effects, 8.4 mg/kg bw/d | |
| Aminopropyltriethoxysilane, CAS: 919-30-2 | |
| ndustrial, dermal, Acute - systemic effects, 8.3 mg/kg bw/d | |
| ndustrial, inhalative, Long-term - systemic effects, 59 mg/m ³ | |
| ndustrial, dermal, Long-term - systemic effects, 8.3 mg/kg bw/d | |
| eneral population, dermal, Long-term - systemic effects, 5 mg/kg bw/d (AF=10) | |
| eneral population, inhalative, Long-term - systemic effects, 17.4 mg/m ³ (AF=10) | |
| eneral population, dermal, Acute - systemic effects, 5 mg/kg bw/d (AF=10) | |
| I-[3-(Trimethoxysilyl)propylcyclohexylamine], CAS: 3068-78-8 | |
| ndustrial, inhalative, Long-term - systemic effects, 16.5 mg/m ³ | |
| ndustrial, inhalative, Acute - systemic effects, 260 mg/m ³ | |
| ndustrial, inhalative, Long-term - local effects, 260 mg/m ³ | |
| ndustrial, inhalative, Acute - local effects, 260 mg/m ³ | |
| ndustrial, dermal, Long-term - systemic effects, 2.33 mg/kg bw/day | |
| eneral population, oral, Long-term - systemic effects, 830 μg/kg bw/day | |
| eneral population, inhalative, Long-term - systemic effects, 2.9 mg/m ³ | |
| eneral population, inhalative, Acute - systemic effects, 50 mg/m ³ | |
| eneral population, inhalative, Long-term - local effects, 50 mg/m ³ | |
| eneral population, inhalative, Acute - local effects, 50 mg/m ³ | |
| jeneral population, dermal, Long-term - systemic effects, 830 μg/kg bw/day | |

PNEC

Substance

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|----------------------|--|-------------|-------------|
| | Tetraethyl silicate, CAS: 78-10-4 | | |
| | seawater, 0.0192 mg/l | | |
| | sediment, 0.18 mg/kg dw | | |
| | sediment (freshwater), 0.18 mg/kg | | |
| | sediment (seawater), 0.018 mg/kg | | |
| | sediment (seawater), 0.083 mg/kg dw | | |
| | sediment (freshwater), 0.83 mg/kg dw | | |
| | soil, 0.05 mg/kg dw | | |
| | sewage treatment plants (STP), 4000 mg/l | | |
| | freshwater, 0.192 mg/l | | |
| | 3-Aminopropyltriethoxysilane, CAS: 919-30-2 | | |
| | sewage treatment plants (STP), 13 mg/L (AF=1) | | |
| | seawater, 0.033 mg/L (AF=10 000) | | |
| | sediment (freshwater), 1.2 mg/kg dw | | |
| | sediment (seawater), 0.12 mg/kg dw | | |
| | soil, 0.05 mg/kg dw | | |
| | freshwater, 0.33 mg/L (AF=1000) | | |
| | N-[3-(Trimethoxysilyl)propylcyclohexylamine], CAS: 3068-78-8 | | |
| | soil, 13 µg/kg soil dw | | |
| | freshwater, 40.71 µg/L | | |
| | seawater, 4.07 µg/L | | |
| | sewage treatment plants (STP), 10 mg/L | | |
| | sediment (freshwater), 184.4 µg/kg sediment dw | | |
| | sediment (freshwater), 18.4 µg/kg sediment dw | | |

8.2 Exposure controls

| Additional advice on system design | Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances. |
|--|--|
| Eye protection | Safety glasses. (EN 166:2001) |
| Hand protection | 0.7 mm Butyl rubber, >480 min (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information. |
| Skin protection | Protective clothing (EN 340) |
| Other | Avoid contact with eyes and skin. Do not inhale vapours. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier. |
| Respiratory protection | In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Short term: filter apparatus, filter A. (DIN EN 14387) |
| Thermal hazards | no |
| Delimitation and monitoring of the environmental exposition | Protect the environment by applying appropriate control measures to prevent or limit emissions. |

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|------|--|---------------------------|--|--|
| SEC | TION 9: Physical and chemical pro | perties | | |
| 9.1 | Information on basic physical and | d chemical properties | | |
| | Physical state | liquid | | |
| | Form | pasty | | |
| | Color | various | | |
| | Odor | characteristic | | |
| | Odour threshold | not determined | | |
| | pH-value | not applicable | | |
| | pH-value [1%] | not determined | | |
| | Boiling point [°C] | not applicable | | |
| | Flash point [°C] | not applicable | | |
| | Flammability | not determined | | |
| | Lower explosion limit | not applicable | | |
| | Upper explosion limit | not applicable | | |
| | Oxidising properties | no | | |
| | Vapour pressure/gas pressure [kPa] | not determined | | |
| | Density [g/cm ³] | not determined | | |
| | Relative density | not determined | | |
| | Bulk density [kg/m³] | not applicable | | |
| | Solubility in water | virtually insoluble | | |
| | Solubility other solvents | No information available. | | |
| | Partition coefficient n-octanol/water (log value) | not determined | | |
| | Kinematic viscosity | not applicable | | |
| | Relative vapour density | not determined | | |
| | Evaporation speed | not determined | | |
| | Melting point [°C] | not determined | | |
| | Auto-ignition temperature [°C] | not applicable | | |
| | Decomposition temperature [°C] | 150 - 180 | | |
| | Particle characteristics | No information available. | | |
| 9.2 | Other information | | | |
| | | none | | |

SECTION 10: Stability and reactivity

10.1 Reactivity

See SECTION 10.3.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with strong oxidizing agents.

10.4 Conditions to avoid

See SECTION 7.2. Contact with moisture.

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10.5 Incompatible materials

Strong oxidizing agent.

10.6 Hazardous decomposition products

Contact with moisture liberates Methanol and Ethanol. In the case of heating (150-180°C) following modest (decomposition) products may occure: Formaldehyde.

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SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity

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

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| Product |
|--|
| oral, Based on the available information, the classification criteria are not fulfilled. |
| |
| Substance |

| Substance |
|--|
| Tetraethyl silicate, CAS: 78-10-4 |
| LD50, oral, Rat, > 2500 mg/kg (OECD TG 423) |
| NOAEL, oral, Rat, 10 mg/kg (28 d) (OECD TG 422) |
| 3-Aminopropyltriethoxysilane, CAS: 919-30-2 |
| LD50, oral, Rat, 1457 mg/kg / 1.57 mL/kg, OECD 401 |
| LD50, oral, Rat, 2660 mg/kg / 2.83 mL/kg, OECD 401 |
| N-[3-(Trimethoxysilyl)propylcyclohexylamine], CAS: 3068-78-8 |
| LD50, oral, Rat, >2000 mg/kg bw, OECD 401 |
| LC50, inhalative, Rat, 1.6 - 2.3 mg/L air, OECD 403, 4h |
| N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 |
| LD50, oral, Rat, 2995 mg/kg |

Acute dermal toxicity

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

Product

dermal, Based on the available information, the classification criteria are not fulfilled.

| Substance |
|-----------|
|-----------|

3-Aminopropyltriethoxysilane, CAS: 919-30-2

LD50, dermal, Rabbit, 4076 mg/kg / 4.29 mL/kg, OECD 402

N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3

LD50, dermal, Rat, > 2000 mg/kg

Acute inhalational toxicity

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

Product

inhalative, Based on the available information, the classification criteria are not fulfilled.

Substance

Tetraethyl silicate, CAS: 78-10-4

LC50, inhalative, Rat, 10 - 16 mg/l (OECD TG 403)

3-Aminopropyltriethoxysilane, CAS: 919-30-2

LC50, inhalation (vapour), Rat (male), > 5 ppm/6h (OECD 403)

LC50, inhalation (vapour), Rat (female), > 16 ppm/6h (OECD 403)

Serious eye damage/irritation Irritant

| Substance |
|--|
| 3-Aminopropyltriethoxysilane, CAS: 919-30-2 |
| Rabbit (eye), OECD 405, Causes serious eye damage. |
| N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 |
| Rabbit, OECD 405, Causes serious eye damage. |

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|--|---|-------------|-------------|
| Skin corrosion/irritation | Based on available data, the classification criteria are not met. | | |
| Substance | | | |
| 3-Aminoprop | yltriethoxysilane, CAS: 919-30-2 | | |
| Rabbit, OECI | D 404, corrosive | | |
| N-[3-(Trimeth | oxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 | | |
| Rabbit, OECI | D 404, Slight irritant effect - does not require labelling. | | |
| | | | |

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met. May cause an allergic skin reaction.

| ubstance |
|---|
| Aminopropyltriethoxysilane, CAS: 919-30-2 |
| ermal, Guinea pig, OECD 406, sensitising |
| -[3-(Trimethoxysilyl)propylcyclohexylamine], CAS: 3068-78-8 |
| ermal, Guinea pig, OECD 406, non-sensitizing |
| -[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 |
| ermal, mouse, OECD 429, sensitising |
| ermal, Guinea pig, OECD 406, sensitising |

Specific target organ toxicity — single exposure

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

```
Specific target organ toxicity — Based on available data, the classification criteria are not met. repeated exposure
```

| Substance |
|---|
| 3-Aminopropyltriethoxysilane, CAS: 919-30-2 |
| NOAEL, oral, Rat, 200 mg/kg (90d; 7d/w), OECD 408, no adverse effect observed |
| LOAEC, inhalativ (mist), Rat, 0.147 mg/l (28d; 5d/w; 6h/d) |
| N-[3-(Trimethoxysilyl)propylcyclohexylamine], CAS: 3068-78-8 |
| NOAEL, oral, Rat, 500 mg/kg bw/day, OECD 422 |
| N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 |
| NOAEL, oral, Rat, > 500 mg/kg (28d), OECD 422, no adverse effect observed |

Mutagenicity

Does not contain a relevant substance that meets the classification criteria.

| Substance |
|--|
| 3-Aminopropyltriethoxysilane, CAS: 919-30-2 |
| in vivo, OECD 474, negativ |
| in vitro, OECD 476, negativ |
| in vitro, OECD 471, negativ |
| N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 |
| in vitro, OECD 476, negativ |
| in vitro, OECD 471, negativ |

Reproduction toxicity

Does not contain a relevant substance that meets the classification criteria.

- Fertility

| Substance | |
|---|-------|
| N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760 | -24-3 |
| NOAEL, oral, Rat, >= 500 mg/kg, OECD 422 | |

- Development

Substance

3-Aminopropyltriethoxysilane, CAS: 919-30-2 LC50, (96h), Danio rerio, > 934 mg/l (OECD 203)

LC50, (96h), Danio rerio, > 100 mg/l EC50, (72h), Algae, 40.71 mg/L

LC50, (96h), Danio rerio, 597 mg/l EC50, (48h), Daphnia magna, 81 mg/l EC50, (16h), Pseudomonas putida, 67 mg/l IC50, (72h), Algae, 8.8 mg/l (OECD 201)

EC50, (3h), Water microorganisms, 1 g/L EC50, (48h), Daphnia sp., 210 mg/L NOEC, (72h), Algae, 16.88 mg/L

NOEC, (72h), Algae, 3.1 mg/l (OECD 201) NOEC, (21d), Daphnia magna, > 1 mg/l

EC50, (48h), Daphnia magna, 331 mg/l (OECD 202)

N-[3-(Trimethoxysilyl)propylcyclohexylamine], CAS: 3068-78-8

N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3

NOEC, (14d), >= 1000 mg/kg (Eisenia fetida; OECD 207)

EC50, (72h), Pseudokirchneriella subcapitata, > 1000 mg/l (OECD 201)

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| 3-Aminopropyltriethoxysilane, CAS: 919-30-2 NOAEL, 100 mg/kg IN-[3-(Trimethoxysily])propyl]ethylenediamine, CAS: 1760-24-3 NOAEL, oral, Rat, >= 500 mg/kg, OECD 422 Carcinogenicity Does not contain a relevant substance that meets the classification criteria. Substance 3-Aminopropyltriethoxysilane, CAS: 919-30-2 NOAEL, dermal, mouse, > 43.8 mg/w (2a; 3d/w), no adverse effect observed Aspiration hazard Based on available data, the classification criteria are not met. General remarks Toxicological data of complete product are not available. 11.2 Information on other hazards 11.2.1 Endocrine disrupting Contains no ingredients with endocrine-disrupting properties. Contains no ingredients with endocrine-disrupting properties. 11.2.2 Other information none SECTION 12: Ecological information none Substance Tetraethyl silicate, CAS: 78-10-4 LC50, (96h), Brachidanio rerio, > 245 mg/l (OECD TG 203) LC50.012.012.012.012.012.012.012.012.012.01 | | | | | | |
|---|--|--|--|--|--|--|
| NOAEL, 100 mg/kg N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 NOAEL, oral, Rat, >= 500 mg/kg, OECD 422 Carcinogenicity Does not contain a relevant substance that meets the classification criteria. Substance 3-Aminopropyltriethoxysilane, CAS: 919-30-2 NOAEL, dermal, mouse, > 43.8 mg/w (2a; 3d/w), no adverse effect observed Aspiration hazard Based on available data, the classification criteria are not met. General remarks Toxicological data of complete product are not available. 11.2 Information on other hazards 11.2.1 Endocrine disrupting properties 11.2.2 Other information none SECTION 12: Ecological information none 12.1 Toxicity Substance ILCS0, (96h), Brachidanio rerio, > 245 mg/l (OECD TG 203) Centra 203 | je 10 / 14 | | | | | |
| N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3 NOAEL, oral, Rat, >= 500 mg/kg, OECD 422 Carcinogenicity Does not contain a relevant substance that meets the classification criteria. Substance 3-Aminopropyltriethoxysilane, CAS: 919-30-2 NOAEL, dermal, mouse, > 43.8 mg/w (2a; 3d/w), no adverse effect observed Aspiration hazard Based on available data, the classification criteria are not met. General remarks Toxicological data of complete product are not available. 11.2 Information on other hazards 11.2.1 Endocrine disrupting properties 11.2.2 Other information none SECTION 12: Ecological information none 12.1 Toxicity Substance ILC50, (96h), Brachidanio rerio, > 245 mg/l (OECD TG 203) Cent 203 | | | | | | |
| Intervention NOAEL, oral, Rat, >= 500 mg/kg, OECD 422 Carcinogenicity Does not contain a relevant substance that meets the classification criteria. Substance 3-Aminopropyltriethoxysilane, CAS: 919-30-2 NOAEL, dermal, mouse, > 43.8 mg/w (2a; 3d/w), no adverse effect observed Aspiration hazard Based on available data, the classification criteria are not met. General remarks Toxicological data of complete product are not available. 11.2 Information on other hazards Contains no ingredients with endocrine-disrupting properties. 11.2.2 Other information none SECTION 12: Ecological information none 12.1 Toxicity Substance Substance Tetraethyl silicate, CAS: 78-10-4 LC50, (96h), Brachidanio rerio, > 245 mg/l (OECD TG 203) Centra 203 | | | | | | |
| Carcinogenicity Does not contain a relevant substance that meets the classification criteria. Substance 3-Aminopropyltriethoxysilane, CAS: 919-30-2 NOAEL, dermal, mouse, > 43.8 mg/w (2a; 3d/w), no adverse effect observed Aspiration hazard Based on available data, the classification criteria are not met. General remarks Toxicological data of complete product are not available. 11.2 Information on other hazards Contains no ingredients with endocrine-disrupting properties. 11.2.2 Other information none SECTION 12: Ecological information none 12.1 Toxicity Substance Iteratethyl silicate, CAS: 78-10-4 LC50, (96h), Brachidanio rerio, > 245 mg/l (OECD TG 203) | | | | | | |
| Substance 3-Aminopropyltriethoxysilane, CAS: 919-30-2 NOAEL, dermal, mouse, > 43.8 mg/w (2a; 3d/w), no adverse effect observed Aspiration hazard Based on available data, the classification criteria are not met. General remarks Toxicological data of complete product are not available. 11.2 Information on other hazards Toxicological data of complete product are not available. 11.2.1 Endocrine disrupting properties Contains no ingredients with endocrine-disrupting properties. 11.2.2 Other information none SECTION 12: Ecological information none 12.1 Toxicity Substance Iteraethyl silicate, CAS: 78-10-4 LC50, (96h), Brachidanio rerio, > 245 mg/l (OECD TG 203) | | | | | | |
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| 11.2 Information on other hazards 11.2.1 Endocrine disrupting properties properties 11.2.2 Other information none SECTION 12: Ecological information 12.1 Toxicity Substance Tetraethyl silicate, CAS: 78-10-4 LC50, (96h), Brachidanio rerio, > 245 mg/l (OECD TG 203) | | | | | | |
| 11.2.1 Endocrine disrupting properties Contains no ingredients with endocrine-disrupting properties. 11.2.2 Other information none SECTION 12: Ecological information Image: Contains no ingredients with endocrine-disrupting properties. 12.1 Toxicity Substance Tetraethyl silicate, CAS: 78-10-4 Image: Contains no ingredients with endocrine-disrupting properties. LC50, (96h), Brachidanio rerio, > 245 mg/l (OECD TG 203) Contains no ingredients with endocrine-disrupting properties. | | | | | | |
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| 12.1 Toxicity Substance Tetraethyl silicate, CAS: 78-10-4 LC50, (96h), Brachidanio rerio, > 245 mg/l (OECD TG 203) | | | | | | |
| 12.1 Toxicity Substance Tetraethyl silicate, CAS: 78-10-4 LC50, (96h), Brachidanio rerio, > 245 mg/l (OECD TG 203) | SECTION 12: Ecological information | | | | | |
| Substance Tetraethyl silicate, CAS: 78-10-4 LC50, (96h), Brachidanio rerio, > 245 mg/l (OECD TG 203) | | | | | | |
| Tetraethyl silicate, CAS: 78-10-4 LC50, (96h), Brachidanio rerio, > 245 mg/l (OECD TG 203) | | | | | | |
| LC50, (96h), Brachidanio rerio, > 245 mg/l (OECD TG 203) | | | | | | |
| | | | | | | |
| EC50 (48b) Daphnia magna $> 75 \text{ mg/l}$ (OECD TG 202) | | | | | | |
| | EC50, (48h), Daphnia magna, > 75 mg/l (OECD TG 202) | | | | | |
| EC50, (72h), Pseudokirchneriella subcapitata, > 100 mg/l (OECD TG 201) | EC50, (72h), Pseudokirchneriella subcapitata, > 100 mg/l (OECD TG 201) | | | | | |
| NOEC, (72h), Pseudokirchneriella subcapitata, > 100 mg/l (OECD TG 201) | NOEC, (72h), Pseudokirchneriella subcapitata, > 100 mg/l (OECD TG 201) | | | | | |
| NOEC, (48h), Daphnia magna, > 75 mg/l (OECD TG 202) | | | | | | |
| NOEC, (96h), Brachidanio rerio, > 245 mg/l (OECD TG 203) | NOEC, (96h), Brachidanio rerio, > 245 mg/l (OECD TG 203) | | | | | |

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|---|

12.2 Persistence and degradability

| not determined |
|----------------|
| not determined |
| not determined |
| |

12.3 Bioaccumulative potential

not determined

12.4 Mobility in soil

not applicable

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Endocrine disrupting properties

Contains no ingredients with endocrine-disrupting properties.

12.7 Other adverse effects

Ecological data of complete product are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

| Product |
|---------|
|---------|

| Waste no. (recommended) | 150110* packaging containing residues of or contaminated by hazardous substances 150102 |
|-------------------------|--|
| | Uncontaminated packaging may be taken for recycling. Packaging that cannot be cleaned should be disposed of as for product. |
| Contaminated packaging | |
| Waste no. (recommended) | 070216* |
| | For recycling, consult manufacturer. Disposal in an incineration plant in accordance with the regulations of the local authorities. |

| 14.1 | UN number or ID number | |
|------|---|----------------|
| | Transport by land according to ADR/RID | not applicable |
| | Inland navigation (ADN) | not applicable |
| | Marine transport in accordance with IMDG | not applicable |
| | | |

Air transport in accordance with IATA not applicable

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|------|---|-------------------------------------|--|--|--|--|
| 14.2 | 4.2 UN proper shipping name | | | | | |
| | | NO DANGEROUS GOODS | | | | |
| | Inland navigation (ADN) | NO DANGEROUS GOODS | | | | |
| | Marine transport in accordance with IMDG | NOT CLASSIFIED AS "DANGEROUS GOODS" | | | | |
| | Air transport in accordance with IATA | NOT CLASSIFIED AS "DANGEROUS GOODS" | | | | |
| 14.3 | Transport hazard class(es) | | | | | |
| | Transport by land according to ADR/RID | not applicable | | | | |
| | Inland navigation (ADN) | not applicable | | | | |
| | Marine transport in accordance with IMDG | not applicable | | | | |
| | Air transport in accordance with IATA | not applicable | | | | |
| 14.4 | Packing group Transport by land according to ADR/RID | not applicable | | | | |
| | Inland navigation (ADN) | not applicable | | | | |
| | Marine transport in accordance with IMDG | not applicable | | | | |
| | Air transport in accordance with IATA | not applicable | | | | |
| 14.5 | Environmental hazards Transport by land according to ADR/RID | no | | | | |
| | Inland navigation (ADN) | no | | | | |
| | Marine transport in accordance with IMDG | no | | | | |
| | Air transport in accordance with IATA | no | | | | |
| 14.6 | Special precautions for user | | | | | |
| | Relevant information under SECTION 6 t | to 8. | | | | |
| 447 | Maritima transport in bulk accordi | ing to INO instruments | | | | |

14.7 Maritime transport in bulk according to IMO instruments

not applicable

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| SECTION 15: Regulatory information | | | |
| 15.1 Safety, health and environmenta | Il regulations/legislation specific for the substanc | e or mixture | |
| EEC-REGULATIONS | 2008/98/EC 2000/532/EC); 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014; (EU) 2019/1148 | | |
| - Comment on component parts | Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%. | | |
| - Annex I (REACH) | The product is not subject to Annex I restrictions. | | |
| - Annex XIV (REACH) | According to Annex XIV of Regulation (EC) 1907/2006 (REACH) the product does not contain any substances $\geq 0.1\%$ that are subject to authorisation. | | |
| - Annex XVII (REACH) | According to Annex XVII of Regulation (EC) 1907/2006 (of substances with the following restrictions. 40, 75 | REACH) the product of | contains ≥ 0.1% |
| | According to Annex XVII of Regulation (EC) 1907/2006 (any restrictions. | REACH) the product i | s not subject to |
| TRANSPORT-REGULATIONS | ADR (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR | (2023) | |
| NATIONAL REGULATIONS (EU): | | | |
| - Observe employment restrictions for people | Observe employment restrictions for young people. | | |
| - VOC (2010/75/CE) | 0 % | | |
| 15.2 Chemical safety assessment | | | |
| | not applicable | | |
| SECTION 16: Other information | | | |

16.1 Hazard statements (SECTION 3)

H314 Causes severe skin burns and eye damage.

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H315 Causes skin irritation.

- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H226 Flammable liquid and vapour.

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| 16.2 Abbreviations and acronyms: | | | |
| - | ADR = Accord européen relatif au transport international de | s marchandises Da | andereuses par |
| | Route | | angeredeee par |
| | RID = Règlement concernant le transport international ferro | viaire de marchanc | dises |
| | dangereuses | | |
| | ADN = Accord européen relatif au transport international de | es marchandises da | andereuses par |
| | voie de navigation intérieure | | 3 |
| | ATE = acute toxicity estimate | | |
| | CAS = Chemical Abstracts Service | | |
| | CLP = Classification, Labelling and Packaging | | |
| | DMEL = Derived Minimum Effect Level | | |
| | DNEL = Derived No Effect Level | | |
| | EC50 = Median effective concentration | | |
| | ECB = European Chemicals Bureau | | |
| | EEC = European Economic Community | | |
| | EINECS = European Inventory of Existing Commercial Che | mical Substances | |
| | EL50 = Median effective loading | | |
| | ELINCS = European List of Notified Chemical Substances | | |
| | EmS = Emergency Schedules | | |
| | GHS = Globally Harmonized System of Classification and L | abelling of Chemic | als |
| | IATA = International Air Transport Association | | |
| | IBC-Code = International Code for the Construction and Eq | upment of Ships c | arrying |
| | Dangerous Chemicals in Bulk | | |
| | IC50 = Inhibition concentration, 50% | | |
| | IMDG = International Maritime Code for Dangerous Goods | h | |
| | IUCLID = International Uniform ChemicaL Information Data | base | |
| | IVIS = In vitro irritation score | | |
| | LC50 = Lethal concentration, 50% LD50 = Median lethal dose | | |
| | LC0 = lethal concentration, 0% | | |
| | LOAEL = lowest-observed-adverse-effect level | | |
| | LL50 = Median lethal loading | | |
| | LQ = Limited Quantities | | |
| | MARPOL = International Convention for the Prevention of M | Aarine Pollution from | m Shins |
| | NOAEL = No Observed Adverse Effect Level | | ii Cinpo |
| | NOEC = No Observed Effect Concentration | | |
| | PBT = Persistent, Bioaccumulative and Toxic substance | | |
| | PNEC = Predicted No-Effect Concentration | | |
| | REACH = Registration, Evaluation, Authorisation and Restr | iction of Chemicals | 5 |
| | | | |

STP = Sewage Treatment Plant

TLV®/TWA = Threshold limit value - time-weighted average

TLV®STEL = Threshold limit value - short-time exposure limit

VOC = Volatile Organic Compounds

vPvB = very Persistent and very Bioaccumulative

16.3 Other information

This document does not comply with Regulation (EC) No 1907/2006, article 31 (5) and may be used for internal purposes only.

| Classification procedure | Eye Irrit. 2: H319 Causes serious eye irritation. (Calculation method) | |
|--------------------------|---|--|
| Modified position | SECTION 8 been added: Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier. | |
| | SECTION 8 been added: Protective clothing (EN 340) | |
| | SECTION 8 deleted: Not required under normal conditions. | |
| | SECTION 8 been added: Butyl rubber, >480 min (EN 374-1/-2/-3). | |
| | SECTION 9 been added: liquid | |
| | SECTION 11 been added: Contains no ingredients with endocrine-disrupting properties. | |
| | | |

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