

Ramsauer GmbH & Co KG
4822 Bad Goisern / H.

Date printed 09.10.2023, Revision 09.10.2023

Version 1.0

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

1.1 Product identifier

Alkoxy 130

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

1.2.1 Relevant uses

Silicon

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company

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E-mail office@ramsauer.eu

Address enquiries to

Technical information

office@ramsauer.at

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)

SECTION 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

Contains:

3-Aminopropyl(methyl) silsesquioxanes, ethoxy-terminated
N-[3-(Trimethoxysilyl)propyl]cyclohexylamine]

Hazard statements

H319 Causes serious eye irritation.

Precautionary statements

P280 Wear eye protection.
P337+P313 If eye irritation persists: Get medical advice / attention.

Special labelling

Contains: Trimethoxyvinylsilane, N-[3-(Trimethoxysilyl)propyl]ethylenediamine, 3-Aminopropyltriethoxysilane. EUH208 May produce an allergic reaction.

2.3 Other hazards

Human health dangers

Contact with moisture liberates Methanol and Ethanol.
Frequent persistent contact with the skin can cause skin irritation.

Environmental hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Contains no ingredients with endocrine-disrupting properties.

Other hazards

Further hazards were not determined with the current level of knowledge.

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SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
1 - <1.5	3-Aminopropyl(methyl) silsesquioxanes, ethoxy-terminated CAS: 128446-60-6, EINECS/ELINCS: Polymer GHS/CLP: Flam. Liq. 3: H226 - Skin Irrit. 2: H315 - Eye Dam. 1: H318
1 - <1.5	N-[3-(Trimethoxysilyl)propyl]cyclohexylamine CAS: 3068-78-8, EINECS/ELINCS: 221-329-8 GHS/CLP: Eye Dam. 1: H318
0.1 - <1	Trimethoxyvinylsilane CAS: 2768-02-7, EINECS/ELINCS: 220-449-8, EU-INDEX: 014-049-00-0, Reg-No.: 01-2119513215-52-XXXX GHS/CLP: Flam. Liq. 3: H226 - Acute Tox. 4: H332 - Skin Sens. 1B: H317
0.1 - <1	4,4,7,7-Tetraethoxy-3,8-dioxa-4,7-disiladecane CAS: 16068-37-4, EINECS/ELINCS: 240-212-2, Reg-No.: 01-2120764364-51-XXXX GHS/CLP: Acute Tox. 3: H301 - Acute Tox. 4: H312 - Aquatic Chronic 3: H412 - STOT RE 1: H372 - EUH071
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
<0.25	1,2-Bis(triethoxysilyl)ethylene CAS: 87061-56-1, EINECS/ELINCS: 689-758-7 GHS/CLP: Aquatic Chronic 3: H412 - Acute Tox. 3: H301 - Acute Tox. 4: H312 - EUH071

Comment on component parts

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

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

In case of contact with skin wash off immediately with soap and water.
If skin irritation or rash occurs: Get medical advice/attention.

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.

4.2 Most important symptoms and effects, both acute and delayed

Irritant effects
Allergic reactions

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Carbon dioxide.
Water spray jet.
Dry powder.
Foam.

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).

5.3 Advice for firefighters

Use self-contained breathing apparatus.

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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.

6.3 Methods and material for containment and cleaning up

Take up mechanically.
Take up residues with absorbent material (e.g. sand, sawdust, general purpose binder, diatomaceous earth).
Dispose of absorbed material in accordance with the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.
Avoid contact with eyes and skin. Use personal protective equipment.

Take off contaminated clothing and wash before reuse.
Wash hands before breaks and after work.
Use barrier skin cream.
Do not eat, drink, smoke or take drugs at work.

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.
Protect from heat/overheating.
Keep in a cool place. Store in a dry place.

7.3 Specific end use(s)

See product use, SECTION 1.2

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
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/m ³ , H

DNEL

Substance
3-Aminopropyltriethoxysilane, CAS: 919-30-2
Industrial, dermal, Long-term - systemic effects, 8.3 mg/kg bw/d
Industrial, dermal, Acute - systemic effects, 8.3 mg/kg bw/d
Industrial, inhalative, Long-term - systemic effects, 59 mg/m ³
general population, dermal, Acute - systemic effects, 5 mg/kg bw/d (AF=10)
general population, dermal, Long-term - systemic effects, 5 mg/kg bw/d (AF=10)
general population, inhalative, Long-term - systemic effects, 17.4 mg/m ³ (AF=10)
N-[3-(Trimethoxysilyl)propyl]cyclohexylamine, CAS: 3068-78-8
Industrial, inhalative, Acute - systemic effects, 260 mg/m ³
Industrial, inhalative, Long-term - systemic effects, 16.5 mg/m ³
Industrial, inhalative, Long-term - local effects, 260 mg/m ³
Industrial, inhalative, Acute - local effects, 260 mg/m ³
Industrial, dermal, Long-term - systemic effects, 2.33 mg/kg bw/day
general population, inhalative, Long-term - systemic effects, 2.9 mg/m ³
general population, inhalative, Acute - systemic effects, 50 mg/m ³
general population, inhalative, Long-term - local effects, 50 mg/m ³
general population, inhalative, Acute - local effects, 50 mg/m ³
general population, dermal, Long-term - systemic effects, 830 µg/kg bw/day
general population, oral, Long-term - systemic effects, 830 µg/kg bw/day
Trimethoxyvinylsilane, CAS: 2768-02-7
Industrial, inhalative, Long-term - systemic effects, 27.6 mg/m ³
Industrial, dermal, Long-term - systemic effects, 0.91 mg/kg bw/day
general population, oral, Long-term - systemic effects, 0.63 mg/kg bw/day
general population, dermal, Long-term - systemic effects, 0.63 mg/kg bw/day
general population, inhalative, Long-term - systemic effects, 6.8 mg/m ³
4,4,7,7-Tetraethoxy-3,8-dioxa-4,7-disiladecane, CAS: 16068-37-4
Industrial, inhalative, Long-term - local effects, 6 µg/m ³
general population, inhalative, Long-term - local effects, 1 µg/m ³

PNEC

Substance
3-Aminopropyltriethoxysilane, CAS: 919-30-2
sediment (freshwater), 1.2 mg/kg dw
freshwater, 0.33 mg/L (AF=1000)
sewage treatment plants (STP), 13 mg/L (AF=1)
sediment (seawater), 0.12 mg/kg dw
soil, 0.05 mg/kg dw
seawater, 0.033 mg/L (AF=10 000)

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

sediment (freshwater), 18.4 µg/kg sediment dw

seawater, 4.07 µg/L

sewage treatment plants (STP), 10 mg/L

soil, 13 µg/kg soil dw

sediment (freshwater), 184.4 µg/kg sediment dw

freshwater, 40.71 µg/L

Trimethoxyvinylsilane, CAS: 2768-02-7

freshwater, 400 µg/L

seawater, 40 µg/L

sediment (freshwater), 1.5 mg/kg dw

sediment (seawater), 0.15 mg/kg dw

soil, 0.06 mg/kg dw

4,4,7,7-Tetraethoxy-3,8-dioxa-4,7-disiladecane, CAS: 16068-37-4

freshwater, 16 µg/L

soil, 6.2 - 7.2 µg/kg soil dw

sediment (seawater), 7.8 - 19 µg/kg sediment dw

sediment (freshwater), 78 - 190 µg/kg sediment dw

sewage treatment plants (STP), 8 g/L

seawater, 1.6 µg/L

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	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. Avoid contact with eyes and skin. Do not inhale vapours.
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	not applicable
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Form	pasty
Color	various
Odor	characteristic
Odour threshold	No information available.
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	not applicable
Flash point [°C]	not applicable
Flammability	yes
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	No information available.
Density [g/cm ³]	ca. 1.02 (EN ISO 1183-1)
Relative density	No information available.
Bulk density [kg/m ³]	not applicable
Solubility in water	virtually insoluble
Solubility other solvents	No information available.
Partition coefficient [n-octanol/water]	not applicable
Kinematic viscosity	not applicable
Relative vapour density	No information available.
Evaporation speed	No information available.
Melting point [°C]	No information available.
Auto-ignition temperature [°C]	No information available.
Decomposition temperature [°C]	No information available.
Particle characteristics	not applicable

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

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.

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 occur:

Formaldehyde.

SECTION 11: Toxicological information

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

Acute oral toxicity

Product
Based on the available information, the classification criteria are not fulfilled.
Substance
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)propyl]cyclohexylamine, 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
Trimethoxyvinylsilane, CAS: 2768-02-7
LD50, oral, Rat, 7120 mg/kg (OECD TG 401)
NOAEL, oral, Rat, < 62.5 mg/kg (28 d) (OECD TG 422)
4,4,7,7-Tetraethoxy-3,8-dioxa-4,7-disiladecane, CAS: 16068-37-4
LD50, oral, Rat, 161 mg/kg bw
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
LD50, oral, Rat, 2995 mg/kg

Acute dermal toxicity

Product
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
Trimethoxyvinylsilane, CAS: 2768-02-7
LD50, dermal, Rabbit, 3259 mg/kg bw
4,4,7,7-Tetraethoxy-3,8-dioxa-4,7-disiladecane, CAS: 16068-37-4
LD50, dermal, Rat, 1971 mg/kg bw
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
LD50, dermal, Rat, > 2000 mg/kg

Acute inhalational toxicity

Product
Based on the available information, the classification criteria are not fulfilled.
Substance
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)
Trimethoxyvinylsilane, CAS: 2768-02-7
LD50, inhalative, Rat, 16.8 mg/l (4 h) (OECD TG 403)
NOAEL, inhalative, Rat, 0.058 mg/l (98 d)
4,4,7,7-Tetraethoxy-3,8-dioxa-4,7-disiladecane, CAS: 16068-37-4

LC50, inhalative, Rat, 377 mg/m³ (4 h)

Serious eye damage/irritation

Irritant
Calculation method

Substance

3-Aminopropyltriethoxysilane, CAS: 919-30-2

Rabbit (eye), OECD 405, Causes serious eye damage.

Trimethoxyvinylsilane, CAS: 2768-02-7

Eye, Rabbit, OECD 405, 24h, non-irritating

4,4,7,7-Tetraethoxy-3,8-dioxa-4,7-disiladecane, CAS: 16068-37-4

Rabbit (eye), OECD 404, non-irritating

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

Rabbit, OECD 405, Causes serious eye damage.

Skin corrosion/irritation

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

Substance

3-Aminopropyltriethoxysilane, CAS: 919-30-2

Rabbit, OECD 404, corrosive

Trimethoxyvinylsilane, CAS: 2768-02-7

dermal, Rabbit, 24h, non-irritating

4,4,7,7-Tetraethoxy-3,8-dioxa-4,7-disiladecane, CAS: 16068-37-4

Rabbit, OECD 404, non-irritating

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

Rabbit, OECD 404, Slight irritant effect - does not require labelling.

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.
EUH 208: May produce an allergic reaction.

Substance

3-Aminopropyltriethoxysilane, CAS: 919-30-2

dermal, Guinea pig, OECD 406, sensitising

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

dermal, Guinea pig, OECD 406, non-sensitizing

Trimethoxyvinylsilane, CAS: 2768-02-7

dermal, sensitising

4,4,7,7-Tetraethoxy-3,8-dioxa-4,7-disiladecane, CAS: 16068-37-4

dermal, Guinea pig, OECD 406, non-sensitizing

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

dermal, mouse, OECD 429, sensitising

dermal, Guinea pig, OECD 406, sensitising

**Specific target organ toxicity —
single exposure**

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

Substance

Trimethoxyvinylsilane, CAS: 2768-02-7

inhalative, non-irritating

**Specific target organ toxicity —
repeated exposure**

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

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)propyl]cyclohexylamine, CAS: 3068-78-8
NOAEL, oral, Rat, 500 mg/kg bw/day, OECD 422
Trimethoxyvinylsilane, CAS: 2768-02-7
NOAEL, oral, Rat, 40 mg/kg bw/day (subchronic), The effects observed are not sufficient for classification.
NOAEC, inhalative, Rat, 605 mg/m ³ (subchronic), The effects observed are not sufficient for classification.
4,4,7,7-Tetraethoxy-3,8-dioxa-4,7-disiladecane, CAS: 16068-37-4
LOAEC, Rat, 0.0027 mg/l (28d; 5d/w; 6h/d), OECD 412
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
Trimethoxyvinylsilane, CAS: 2768-02-7
in vivo, negativ
in vitro, OECD 471, negativ
4,4,7,7-Tetraethoxy-3,8-dioxa-4,7-disiladecane, CAS: 16068-37-4
in vivo, OECD 474, negativ
in vitro, OECD 473, negativ
in vitro, OECD 476, positive
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
Trimethoxyvinylsilane, CAS: 2768-02-7
NOAEL, oral, Rat, 300 mg/kg bw/day (subchronic), no adverse effect observed
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
NOAEL, 100 mg/kg
Trimethoxyvinylsilane, CAS: 2768-02-7
NOAEL, oral, Rabbit, 75 mg/kg bw/day (subacute), no adverse effect observed
NOAEC, inhalative, Rat, 1730 mg/m ³ (subacute), no adverse effect observed
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.
The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

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

11.2.2 Other information

none

SECTION 12: Ecological information

12.1 Toxicity

Product
Based on the available information, the classification criteria are not fulfilled.
Substance
3-Aminopropyltriethoxysilane, CAS: 919-30-2
LC50, (96h), Danio rerio, > 934 mg/l (OECD 203)
EC50, (72h), Pseudokirchneriella subcapitata, > 1000 mg/l (OECD 201)
EC50, (48h), Daphnia magna, 331 mg/l (OECD 202)
N-[3-(Trimethoxysilyl)propyl]cyclohexylamine, CAS: 3068-78-8
LC50, (96h), Danio rerio, > 100 mg/l
EC50, (3h), Water microorganisms, 1 g/L
EC50, (72h), Algae, 40.71 mg/L
EC50, (48h), Daphnia sp., 210 mg/L
NOEC, (72h), Algae, 16.88 mg/L
Trimethoxyvinylsilane, CAS: 2768-02-7
LC50, (96h), Oncorhynchus mykiss, 191 mg/l
EC50, (48h), Daphnia magna, 168.7 mg/l (92/69/EWG C.2)
EC50, Pseudokirchneriella subcapitata, 210 mg/l (7 d) (US-EPA)
EC10, Pseudomonas putida, 1000 mg/l (5 h)
4,4,7,7-Tetraethoxy-3,8-dioxa-4,7-disiladecane, CAS: 16068-37-4
LC50, (96h), Danio rerio, 16 mg/L
EC50, (16h), Pseudomonas putida, 8 g/L
EC50, (72h), Algae, 53 - 671 mg/L
EC50, (48h), Crustacea, 72.6 - 92.2 mg/L
NOEC, (72h), Algae, 102 mg/L
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
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)
NOEC, (72h), Algae, 3.1 mg/l (OECD 201)
NOEC, (14d), >= 1000 mg/kg (Eisenia fetida; OECD 207)
NOEC, (21d), Daphnia magna, > 1 mg/l

12.2 Persistence and degradability

Behaviour in environment compartments	No information available.
Behaviour in sewage plant	No information available.
Biological degradability	No information available.

12.3 Bioaccumulative potential

No information available.

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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

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

12.7 Other adverse effects

Ecological data of complete product are not available.

The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

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

For recycling, consult manufacturer.

Disposal in an incineration plant in accordance with the regulations of the local authorities.

Waste no. (recommended)

070216*

Contaminated packaging

Uncontaminated packaging may be taken for recycling.

Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended)

150110* packaging containing residues of or contaminated by hazardous substances

SECTION 14: Transport information

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

14.2 UN proper shipping name

Transport by land according to ADR/RID 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 to 8.

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 environmental regulations/legislation specific for the substance 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 (REACH) the product contains $\geq 0.1\%$ of substances with the following restrictions. 40, 75
According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product is not subject to any restrictions.

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)

H315 Causes skin irritation.
H314 Causes severe skin burns and eye damage.
H302 Harmful if swallowed.
H335 May cause respiratory irritation.
H318 Causes serious eye damage.
EUH071 Corrosive to the respiratory tract.
H372 Causes damage to lung through prolonged or repeated exposure if inhaled.
H412 Harmful to aquatic life with long lasting effects.
H312 Harmful in contact with skin.
H301 Toxic if swallowed.

H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H226 Flammable liquid and vapour.

16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
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 Chemical Substances
EL50 = Median effective loading
ELINCS = European List of Notified Chemical Substances
EmS = Emergency Schedules
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform Chemical Information Database
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 Marine Pollution from Ships
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
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 3 been added: 3-Aminopropyl(methyl) silsesquioxanes, ethoxy-terminated
SECTION 3 been added: N-[3-(Trimethoxysilyl)propylcyclohexylamine]
SECTION 3 deleted: 3-Aminopropyl(methyl) silsesquioxanes, ethoxy-terminated
SECTION 3 deleted: N-[3-(Trimethoxysilyl)propylcyclohexylamine]
SECTION 2 been added: Contains no ingredients with endocrine-disrupting properties.
SECTION 2 been added: P337+P313 If eye irritation persists: Get medical advice / attention.
SECTION 2 deleted: DANGER
SECTION 2 deleted: H318 Causes serious eye damage.
SECTION 2 deleted: P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
SECTION 2 deleted: corrosion
SECTION 2 deleted: P310 Immediately call a POISON CENTER / doctor.
SECTION 2 deleted: Eye Dam. 1
SECTION 2 been added: H319 Causes serious eye irritation.
SECTION 2 been added: WARNING
SECTION 2 been added: exclamation mark
SECTION 2 been added: Eye Irrit. 2
SECTION 4 deleted: Shield unaffected eye.
SECTION 4 been added: If eye irritation persists: Get medical advice/attention.
SECTION 4 deleted: Consult a doctor immediately.
SECTION 9 been added: not applicable
SECTION 9 deleted: No information available.
SECTION 9 been added: yes
SECTION 9 deleted: not determined
SECTION 11 been added: Irritant
SECTION 11 deleted: No information available.
SECTION 11 been added: Does not contain a relevant substance that meets the classification criteria.
SECTION 11 deleted: Risk of serious damage to eyes.
SECTION 12 been added: Does not contain a relevant substance that meets the classification criteria.
SECTION 12 deleted: No information available.
SECTION 16 deleted: Calculation method
SECTION 16 been added: Calculation method

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