SAFETY DATA SHEET

SILOKSAN SAND - All variants

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

1.1 Product identifier

Product name : SILOKSAN SAND - All variants

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

Product use : Paint.

1.3 Details of the supplier of the safety data sheet

Teknos Group Oy, Takkatie 3, FI-00370 HELSINKI, FINLAND. Tel. +358 9 506 091.

e-mail address of person responsible for this SDS : Prod-safe@teknos.com

National contact

Teknos (UK) Limited, 7 Longlands Rd, Bicester, Oxfordshire OX26 5AH, United Kingdom. Tel. +44 (0) 1869 208005.

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : NHS: 111

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to UK CLP/GHS

Skin Sens. 1, H317
Aquatic Chronic 3, H412

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : H317 - May cause an allergic skin reaction.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

General : P102 - Keep out of reach of children.

Prevention : P280 - Wear protective gloves.
P273 - Avoid release to the environment.
P261 - Avoid breathing vapour.

Response : P362 + P364 - Take off contaminated clothing and wash it before reuse.

Storage : Not applicable.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

SECTION 2: Hazards identification

Supplemental label elements : Contains biocidal products for dry film and in-can preservation: IPBC and DCOIT and EGForm and C(M)IT/MIT (3:1) and OIT. Risk of skin sensitisation.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
cristobalite	EC: 238-455-4 CAS: 14464-46-1	≤10	Not classified.	[2]
Propylene glycol	REACH #: 01-2119456809-23 EC: 200-338-0 CAS: 57-55-6	≤3	Not classified.	[2]
2-(2-butoxyethoxy)ethanol	REACH #: 01-2119475104-44 EC: 203-961-6 CAS: 112-34-5 Index: 603-096-00-8	≤0.3	Eye Irrit. 2, H319	[1] [2]
Sodium nitrite	REACH #: 01-2119471836-27 EC: 231-555-9 CAS: 7632-00-0 Index: 007-010-00-4	≤0.3	Ox. Sol. 2, H272 Acute Tox. 3, H301 Eye Irrit. 2, H319 Aquatic Acute 1, H400 (M=1)	[1]
3-iodo-2-propynyl-butyl carbamate	EC: 259-627-5 CAS: 55406-53-6 Index: 616-212-00-7	≤0.11	Acute Tox. 4, H302 Acute Tox. 3, H331 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 1, H372 (larynx) Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1)	[1]
Ammonia	REACH #: 01-2119488876-14 EC: 215-647-6 CAS: 1336-21-6 Index: 007-001-01-2	<0.1	Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 (M=1)	[1] [2]
cristobalite	EC: 238-455-4 CAS: 14464-46-1	≤0.1	STOT RE 1, H372 (inhalation)	[1] [2]
4,5-dichloro-2-octyl-2H-isothiazol-3-one	EC: 264-843-8 CAS: 64359-81-5 Index: 613-335-00-8	≤0.022	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Corr. 1, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)	[1]

SECTION 3: Composition/information on ingredients

			EUH071	
magnesium oxide	UK (GB) REACH #: Annex V REACH #: Annex V EC: 215-171-9 CAS: 1309-48-4	≤0.1	Not classified.	[2]
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	EC: 911-418-6 CAS: 55965-84-9 Index: 613-167-00-5	<0.0015	Acute Tox. 3, H301 Acute Tox. 2, H310 Acute Tox. 2, H330 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100) EUH071	[1]
Quartz (SiO2)	EC: 238-878-4 CAS: 14808-60-7	≤0.1	STOT RE 2, H373	[1] [2]
Formaldehyde	REACH #: 01-2119488953-20 EC: 200-001-8 CAS: 50-00-0 Index: 605-001-00-5	<0.1	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H335 **See Section 16 for the full text of the H statements declared above.**	[1] [2]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SECTION 4: First aid measures

Ingestion : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

6.3 Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

6.4 Reference to other sections

: See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Do not store below the following temperature: 5°C (41°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.

SECTION 7: Handling and storage

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

cristobalite	**EH40/2005 WELs (United Kingdom (UK), 1/2020) [silica, respirable crystalline]** Carc. TWA 8 hours: 0.1 mg/m³. Form: Respirable fraction.
Propylene glycol	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** TWA 8 hours: 474 mg/m³. Form: total vapour and particulates. TWA 8 hours: 150 ppm. Form: total vapour and particulates. TWA 8 hours: 10 mg/m³. Form: Particulate.
2-(2-butoxyethoxy)ethanol	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** TWA 8 hours: 10 ppm. TWA 8 hours: 67.5 mg/m³. STEL 15 minutes: 15 ppm. STEL 15 minutes: 101.2 mg/m³.
Ammonia	**EH40/2005 WELs (United Kingdom (UK), 1/2020) [ammonia]** STEL 15 minutes: 25 mg/m³. Form: anhydrous. STEL 15 minutes: 35 ppm. Form: anhydrous. TWA 8 hours: 25 ppm. Form: anhydrous. TWA 8 hours: 18 mg/m³. Form: anhydrous.
cristobalite	**EH40/2005 WELs (United Kingdom (UK), 1/2020) [silica, respirable crystalline]** Carc. TWA 8 hours: 0.1 mg/m³. Form: Respirable fraction.
magnesium oxide	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** TWA 8 hours: 10 mg/m³ (as Mg). Form: inhalable dust fume. TWA 8 hours: 4 mg/m³ (as Mg). Form: respirable dust.
Quartz (SiO2)	**EH40/2005 WELs (United Kingdom (UK), 1/2020) [silica, respirable crystalline]** Carc. TWA 8 hours: 0.1 mg/m³. Form: Respirable fraction.
Formaldehyde	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** Carc. STEL 15 minutes: 2.5 mg/m³. STEL 15 minutes: 2 ppm. TWA 8 hours: 2 ppm. TWA 8 hours: 2.5 mg/m³.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Result
Propylene glycol	**DNEL - General population - Long term - Inhalation** 10 mg/m³ Effects: Local **DNEL - Workers - Long term - Inhalation** 10 mg/m³ Effects: Local **DNEL - General population - Long term - Inhalation** 50 mg/m³

	Effects: Systemic **DNEL - Workers - Long term - Inhalation** 168 mg/m³ Effects: Systemic
2-(2-butoxyethoxy)ethanol	**DNEL - General population - Long term - Oral** 6.25 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Inhalation** 67.5 mg/m³ Effects: Local **DNEL - Workers - Short term - Inhalation** 101.2 mg/m³ Effects: Local
Sodium nitrite	**DNEL - Workers - Short term - Inhalation** 2 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Inhalation** 2 mg/m³ Effects: Systemic
3-iodo-2-propynyl-butyl carbamate	**DNEL - Workers - Long term - Inhalation** 0.023 mg/m³ Effects: Systemic **DNEL - Workers - Short term - Inhalation** 0.07 mg/m³ Effects: Systemic **DNEL - Workers - Short term - Inhalation** 1.16 mg/m³ Effects: Local **DNEL - Workers - Long term - Inhalation** 1.16 mg/m³ Effects: Local **DNEL - Workers - Long term - Dermal** 2 mg/kg bw/day Effects: Systemic
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	**DNEL - General population - Long term - Inhalation** 0.02 mg/m³ Effects: Local **DNEL - Workers - Long term - Inhalation** 0.02 mg/m³ Effects: Local **DNEL - General population - Short term - Inhalation** 0.04 mg/m³ Effects: Local **DNEL - Workers - Short term - Inhalation** 0.04 mg/m³ Effects: Local **DNEL - General population - Long term - Oral** 0.09 mg/kg bw/day Effects: Systemic

	DNEL - General population - Short term - Oral 0.11 mg/kg bw/day Effects: Systemic
Formaldehyde	**DNEL - General population - Long term - Dermal** 12 µg/cm² Effects: Local **DNEL - Workers - Long term - Dermal** 37 µg/cm² Effects: Local **DNEL - General population - Long term - Inhalation** 0.1 mg/m³ Effects: Local **DNEL - Workers - Long term - Inhalation** 0.375 mg/m³ Effects: Local **DNEL - Workers - Short term - Inhalation** 0.75 mg/m³ Effects: Local **DNEL - General population - Long term - Inhalation** 3.2 mg/m³ Effects: Systemic **DNEL - General population - Long term - Oral** 4.1 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Inhalation** 9 mg/m³ Effects: Systemic **DNEL - General population - Long term - Dermal** 102 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 240 mg/kg bw/day Effects: Systemic

PNECs

Not available.

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 8: Exposure controls/personal protection

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Recommendations : Wear suitable gloves tested to EN374.

> 8 hours (breakthrough time): Nitrile gloves. thickness > 0.3 mm

Not recommended polyvinyl alcohol (PVA) gloves

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Filter type (spray application): A P

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Various

Odour : Slight

Odour threshold : Not available.

Melting point/freezing point : Not available.

Initial boiling point and boiling range :

Ingredient name	°C	°F	Method
water	100	212	
Propylene glycol	188.2	370.8	

Flammability (solid, gas) : Not available.

Upper/lower flammability or explosive limits : Lower: 2.6% (propane-1,2-diol)
Upper: 12.6% (propane-1,2-diol)

Flash point : Closed cup: >100°C (>212°F)

Auto-ignition temperature :

Ingredient name	°C	°F	Method
Dipropyleneglycol-n-butylether	194	381.2	EU A.15
Propylene glycol	371	699.8	

SECTION 9: Physical and chemical properties

Decomposition temperature : Not available.

pH : 8.5 to 9.2 [Conc. (% w/w): 100%]

Viscosity : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C): Not available.

Solubility(ies) :

Not available.

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not applicable.

Vapour pressure :

	Vapour Pressure at 20˚C			Vapour pressure at 50˚C		
Ingredient name	**mm Hg**	**kPa**	**Method**	**mm Hg**	**kPa**	**Method**
water	17.5	2.3				
Propylene glycol	0.15	0.02	EU A.4			

Relative density : Not available.

Density : 1.5 g/cm³

Vapour density : Not available.

Explosive properties : Not available.

Oxidising properties : Not available.

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

Not available.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result
Propylene glycol	**Rat - Oral - LD50** 20 g/kg **Rabbit - Dermal - LD50** 20800 mg/kg
2-(2-butoxyethoxy)ethanol	**Rabbit - Dermal - LD50**

	2700 mg/kg **Rat - Oral - LD50** 4500 mg/kg Toxic effects: Behavioral - Tetany Lung, Thorax, or Respiration - Dyspnea Liver - Other changes
Sodium nitrite	**Rat - Oral - LD50** 180 mg/kg
3-iodo-2-propynyl-butyl carbamate	**Rat - Oral - LD50** 400 mg/kg **Rat - Dermal - LD50** >2000 mg/kg **Rat - Inhalation - LC50 Dusts and mists** 0.763 mg/l [4 hours] **Rat - Inhalation - LC50 Dusts and mists** 0.67 g/m³ [4 hours]
Ammonia	**Rat - Oral - LD50** 350 mg/kg Toxic effects: Gastrointestinal - Other changes Liver - Other changes Kidney, Ureter, and Bladder - Other changes
4,5-dichloro-2-octyl-2H-isothiazol-3-one	**Rat - Oral - LD50** 1585 mg/kg OECD [Acute Oral Toxicity] **Rabbit - Dermal - LD50** >652 mg/kg OECD [Acute Dermal Toxicity] **Rat - Male, Female - Inhalation - LC50 Dusts and mists** 0.26 mg/l [4 hours] OECD [Acute Inhalation Toxicity]
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	**Rat - Oral - LD50** 53 mg/kg Toxic effects: Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Lung, Thorax, or Respiration - Respiratory depression
Formaldehyde	**Rat - Oral - LD50** 100 mg/kg **Rabbit - Dermal - LD50** 270 mg/kg **Rat - Inhalation - LC50 Gas.** 250 ppm [4 hours]

Conclusion/Summary [Product] : Not available.

Acute toxicity estimates

SECTION 11: Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
SILOKSAN SAND	175200.0	N/A	N/A	N/A	656.6
Propylene glycol	20000	20800	N/A	N/A	N/A
2-(2-butoxyethoxy)ethanol	4500	2700	N/A	N/A	N/A
Sodium nitrite	180	N/A	N/A	N/A	N/A
3-iodo-2-propynyl-butyl carbamate	400	N/A	N/A	N/A	0.67
4,5-dichloro-2-octyl-2H-isothiazol-3-one	567	N/A	N/A	N/A	0.16
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	53	50	N/A	0.5	N/A
Formaldehyde	100	270	250	N/A	N/A

Skin corrosion/irritation

Product/ingredient name	Result
Propylene glycol	**Child - Skin - Moderate irritant** Duration of treatment/exposure: 96 hours Amount/concentration applied: 30 % C **Human - Skin - Mild irritant** Duration of treatment/exposure: 168 hours Amount/concentration applied: 500 mg **Human - Skin - Moderate irritant** Duration of treatment/exposure: 72 hours Amount/concentration applied: 104 mg l **Woman - Skin - Mild irritant** Duration of treatment/exposure: 96 hours Amount/concentration applied: 30 %
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	**Human - Skin - Severe irritant** Amount/concentration applied: 0.01 %
Formaldehyde	**Human - Skin - Mild irritant** Duration of treatment/exposure: 72 hours Amount/concentration applied: 150 ug l **Human - Skin - Severe irritant** Amount/concentration applied: 0.01 % **Rabbit - Skin - Mild irritant** Amount/concentration applied: 540 mg **Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 50 mg **Rabbit - Skin - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 2 mg **Rabbit - Skin - Severe irritant** Amount/concentration applied: 0.8 % **Mouse - Skin - Moderate irritant** Amount/concentration applied: 7 % **Rat - Skin - Moderate irritant** Amount/concentration applied: 7 %

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name	Result
Propylene glycol	**Rabbit - Eyes - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg **Rabbit - Eyes - Mild irritant** Amount/concentration applied: 100 mg
2-(2-butoxyethoxy)ethanol	**Rabbit - Eyes - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 20 mg **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 20 mg
Sodium nitrite	**Rabbit - Eyes - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg
3-iodo-2-propynyl-butyl carbamate	**Rabbit - Eyes - Severe irritant**
Ammonia	**Rabbit - Eyes - Severe irritant** Amount/concentration applied: 250 ug **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 44 ug **Rabbit - Eyes - Severe irritant** Duration of treatment/exposure: 0.5 minutes Amount/concentration applied: 1 mg
Formaldehyde	**Human - Eyes - Mild irritant** Duration of treatment/exposure: 6 minutes Amount/concentration applied: 1 ppm **Rabbit - Eyes - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 750 ug **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 750 ug **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 37 % **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 10 mg **Mouse - Eyes - Moderate irritant** Amount/concentration applied: 3 %

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

SECTION 11: Toxicological information

Respiratory or skin sensitization

Product/ingredient name	Result
3-iodo-2-propynyl-butyl carbamate	**Guinea pig - skin** Result: Not sensitizing

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Product/ingredient name	Result
3-iodo-2-propynyl-butyl carbamate	**In vitro - Bacteria** Result: Negative

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Reproductive toxicity

Product/ingredient name	Result
3-iodo-2-propynyl-butyl carbamate	**Rabbit - Female - Oral** 50 mg/kg [7 days per week] [13 days] Maternal toxicity: Positive Developmental: Negative **Rabbit - Female - Oral** 20 mg/kg [7 days per week] [13 days] Maternal toxicity: Negative Developmental: Negative

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Result
Ammonia	STOT SE 3, H335 (Respiratory tract irritation)
Formaldehyde	STOT SE 3, H335 (Respiratory tract irritation)

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result
3-iodo-2-propynyl-butyl carbamate	STOT RE 1, H372 (larynx)
cristobalite	STOT RE 1, H372 (inhalation)
Quartz (SiO2)	STOT RE 2, H373

Aspiration hazard

Not available.

Information on likely routes of exposure

Not available.

SECTION 11: Toxicological information

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] : Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result
Propylene glycol	**Acute - LC50 - Fresh water** EU Fish - Trout - *Oncorhynchus mykiss* 40613 mg/l [96 hours] **Acute - EC50 - Fresh water** EU Algae - Algae 19300 mg/l [96 hours] **Acute - LC50 - Fresh water** Crustaceans - Water flea - *Ceriodaphnia dubia* Age: <24 hours 18340000 µg/l [48 hours] Effect: Mortality
2-(2-butoxyethoxy)ethanol	**Acute - LC50 - Fresh water** Fish - Bluegill - *Lepomis macrochirus*

	Size: 33 to 75 mm 1300000 µg/l [96 hours] Effect: Mortality
Sodium nitrite	**Acute - LC50 - Fresh water** Fish - Channel catfish - *Ictalurus punctatus* - Fingerling Size: 50 to 76 mm 0.16 µg/l [96 hours] Effect: Mortality **Acute - LC50 - Fresh water** Crustaceans - Australian redclaw crayfish - *Cherax quadricarinatus* Weight: 0.1 to 0.14 g 1100 µg/l [48 hours] Effect: Mortality **Acute - EC50 - Marine water** Algae - Prasinophyte - *Tetraselmis chuii* 159000 µg/l [72 hours] Effect: Population **Chronic - NOEC - Marine water** Fish - Large Seahorse - *Hippocampus abdominalis* - Juvenile (Fledgling, Hatchling, Weanling) Age: 14 weeks 0.912 mg/l [35 days] Effect: Physiology
3-iodo-2-propynyl-butyl carbamate	**Acute - LC50 - Fresh water** EU Fish - Trout - *Oncorhynchus mykiss* 0.067 mg/l [96 hours] **Acute - NOEC - Fresh water** EU Fish - Trout - *Oncorhynchus mykiss* 0.049 mg/l [96 hours] **Acute - EC50 - Fresh water** EU Daphnia - Daphnia - *Daphnia magna* 0.16 mg/l [48 hours] **Chronic - NOEC - Fresh water** EU Daphnia - Daphnia - *Daphnia Magna* 0.05 mg/l [21 days] **Acute - EC50 - Fresh water** EU Algae - Algae - *Scenedemus subspicatus* 0.022 mg/l [72 hours]
Ammonia	**Acute - LC50 - Fresh water** Fish - Western mosquitofish - *Gambusia affinis* - Adult 37 ppm [96 hours] Effect: Mortality
4,5-dichloro-2-octyl-2H-isothiazol-3-one	**Acute - EC50 - Fresh water** Algae - Green algae - *Pseudokirchneriella subcapitata* 0.003 mg/l [72 hours] Effect: Population **Acute - EC50 - Fresh water**

	Daphnia - Water flea - *Daphnia magna* 0.001 mg/l [48 hours] Effect: Intoxication **Acute - LC50 - Fresh water** US EPA Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss* Weight: 1.2 g 2.7 ppb [96 hours] Effect: Mortality **Chronic - NOEC** US EPA Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss* 0.56 ppb [97 days] Effect: Growth **Chronic - NOEC - Marine water** OECD Algae - Diatom - *Nitzschia pungens* 19.789 µg/l [96 hours] Effect: Population
Formaldehyde	**Acute - EC50 - Fresh water** Daphnia - Water flea - *Daphnia pulex* - Neonate Age: <24 hours 5800 µg/l [48 hours] Effect: Intoxication **Acute - EC50 - Marine water** Algae - Green algae - *Ulva pertusa* 0.788 mg/l [96 hours] Effect: Reproduction **Acute - LC50 - Fresh water** US EPA Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss* 1.41 ppm [96 hours] Effect: Mortality **Chronic - NOEC - Fresh water** Fish - Chinook salmon - *Oncorhynchus tshawytscha* - Egg 953.9 ppm [43 days] Effect: Mortality **Chronic - NOEC - Marine water** Algae - Haptophyte - *Isochrysis galbana* - Exponential growth phase Age: 4 to 5 days 0.005 mg/l [96 hours] Effect: Population

Conclusion/Summary [Product] : Not available.

12.2 Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

SECTION 12: Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Propylene glycol	-	-	Readily
3-iodo-2-propynyl-butyl carbamate	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Propylene glycol	-1.07	-	Low
2-(2-butoxyethoxy)ethanol	1	-	Low
Sodium nitrite	-3.7	-	Low
3-iodo-2-propynyl-butyl carbamate	>1	-	Low
Formaldehyde	0.35	-	Low

12.4 Mobility in soil

Soil/water partition coefficient : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
cristobalite	No	No	No	No	No	No	No
Propylene glycol	No	N/A	N/A	No	N/A	N/A	N/A
2-(2-butoxyethoxy)ethanol	No	N/A	N/A	No	N/A	N/A	N/A
Sodium nitrite	No	No	No	No	No	No	No
3-iodo-2-propynyl-butyl carbamate	N/A	N/A	N/A	Yes	N/A	N/A	N/A
Ammonia	No	No	No	No	No	No	No
cristobalite	No	No	No	No	No	No	No
4,5-dichloro-2-octyl-2H-isothiazol-3-one	N/A	N/A	N/A	Yes	N/A	N/A	N/A
magnesium oxide	No	No	No	No	No	No	No
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	No	N/A	N/A	No	N/A	N/A	N/A
Quartz (SiO2)	No	No	No	No	No	No	No
Formaldehyde	N/A	N/A	N/A	Yes	N/A	N/A	N/A

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

SECTION 13: Disposal considerations

European waste catalogue (EWC) : 080111*, 200127*

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments : Not relevant/applicable due to nature of the product.

SECTION 15: Regulatory information

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

UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

SECTION 15: Regulatory information

Product/ingredient name	%	Designation [Usage]
SILOKSAN SAND	≥90	3
2-(2-butoxyethoxy)ethanol	≤0.3	55 [Consumer paint]
Formaldehyde	<0.1	72

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

Product/ingredient name	List name	Name on list	Classification	Notes
cristobalite	EH40/2005 WELs	silica, respirable crystalline	Carc	-
cristobalite	EH40/2005 WELs	silica, respirable crystalline	Carc	-
Quartz (SiO2)	EH40/2005 WELs	silica, respirable crystalline	Carc	-
Formaldehyde	EH40/2005 WELs	-	Carc	-

EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = GB CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

SECTION 16: Other information

Procedure used to derive the classification

Classification	Justification
Skin Sens. 1, H317 Aquatic Chronic 3, H412	Calculation method Calculation method

Full text of abbreviated H statements

H272	May intensify fire; oxidiser.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

Full text of classifications

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Carc. 1B	CARCINOGENICITY - Category 1B
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Muta. 2	GERM CELL MUTAGENICITY - Category 2
Ox. Sol. 2	OXIDISING SOLIDS - Category 2
Skin Corr. 1	SKIN CORROSION/IRRITATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Corr. 1C	SKIN CORROSION/IRRITATION - Category 1C
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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Version : 3

SILOKSAN SAND All variants

Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.