

SAFETY DATA SHEET

Betsilan Roadseal

(liquid)

Hydrophobic impregnation agent for concrete road structures

Date prepared: 2024

Revision date:

Version: 1

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier
Product name *Betsilan Roadseal*

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

Relevant identified uses *For industrial use. Building materials.*
Uses advised against *Use only in accordance with product specifications.*

Details of the Supplier of the Safety Data Sheet

Name of the manufacturer *SL Protection OÜ*
Address *Vana-Narva mnt 30, Maardu, 74114 Harju maakond, Estonia*
E-mail *info@slprotection.eu*
Phone/fax *(+372) 55666174*
Emergency telephone number *Estonian National Poisons Information Centre: 16662 (+372 794 3794 from abroad) / Emergency telephone number: 112*

Emergency telephone - §45 - (EC)1272/2008

Europe	112
Estonia	16662 (24/7)
Finland	0800 147 111 (call is free of charge) +358 9 471 977
Austria	+43 (0)1 406 43 43
Bulgaria	+359 2 9154 233 (24/7)
Croatia	+385 1 2348 342 (24/7)
Czech Republic	+420 224 919 293 +420 224 915 402
Denmark	+45 8212 12 12
France	+33 (0)1 45 42 59 59 (24/7)
Greece	+30 2107793777 (24/7)
Iceland	543 2222 (24/7)
Ireland	+353 1 809 21 66 (8am-10pm; 7 days a week)
Italy	Numero telefonico del centro antiveleni: 0039 02-66101029
Latvia	+371 67042473
Lithuania	+370 (85) 2362052
Netherlands	Nationaal Vergiftigingen Informatie Centrum (NVIC): +31 (0)88 755 8000 Uitsluitend bestemd om professionele hulpverleners te informeren bij acute vergiftigingen

Norway	+47 22 59 13 00
Portugal	+351 800 250 250 (24/7)
Romania	+40213183606
Slovakia	+421 2 5477 4166
Slovenia	112
Spain	+34 91 562 04 20(24h/365 días), Únicamente para respuesta sanitaria en caso de urgencia
Sweden	+46 10 456 6700

2. HAZARDS IDENTIFICATION

Hazard Classification

H 226 *Flammable liquids, Category 3*

Label element

Hazard Symbol:



Signal Word: *Warning.*

Hazard Statement: *H226 Flammable liquid and vapour.*

Precautionary Statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves/protective clothing/eye protection.
P233 Keep container tightly closed.
P370 + P378 In case of fire: Use extinguishing powder, alcohol-resistant foam or carbon dioxide to extinguish.
P403 + P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container to waste disposal.

Hazardous ingredients (labelling rules): *Triethoxy(2,4,4-trimethylpentyl) silane.*

Other hazards

Inhalation of aerosol spray may damage health.
The product hydrolyses under formation of ethanol (CAS-Nr. 64-17-5). Ethanol is classified concerning both physical and health hazards. The hydrolysis rate and consequently the relevance for the hazard profile of the product is strongly dependent on the specific conditions.
Endocrine disrupting properties - human health: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Endocrine disrupting properties - environment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance Name: Octyl triethoxy silane
Substance Content: >90%
CAS Number: 35435-21-3
EC Number: 252-558-1
REACH Number: 01-2119555666-27

Type: INHA: Component, VERU: Contamination

May contain substances registered under REACH as impurities. Specific uses and exposure scenarios for these substances are not typically presented on the safety data sheet.

Classification references are described in section 16.

The product does not contain more than 0.1% of very dangerous substances (Regulation (EC) No. 1907/2006 (REACH) Article 57).

4. FIRST AID MEASURES

General information: *Get medical attention if irritation or other symptoms occur. Before seeking medical attention, remove contaminated clothing and shoes. Take a copy of the Safety Data Sheet when going for medical treatment.*

Inhalation: *If inhaled remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen.*

Skin contact: *For skin contact, immediately wipe away excess material. Use a waterless hand cleaner to remove as much of the remaining material as possible. Wash with soap and water.*

Eye contact: *If contact with eyes, immediately hold eyelids apart and flush with plenty of water for at least 15 min.*

Ingestion: *For ingestion, if conscious, give several glasses of water but do not induce vomiting. If vomiting does occur, give additional fluids. Indicate the possible formation of ethanol.*

Advice for the physician: *Treat symptomatically.*

5. FIREFIGHTING MEASURES

Fire and explosion hazards: *This material will flash but does not sustain combustion. As a result of hydrolysis flammable vapors may accumulate in the container head space. Consider possible formation of explosive mixtures with air, for example in uncleaned containers by moisture. Explosion limits for hydrolysis product ethanol: 3.5-15% v/v.*

Extinguishing media

Suitable extinguishing media *Alcohol-resistant foam, CO₂, sprinkler system, sand, fire extinguishing powder.*

Unsuitable extinguishing media *Water, halones.*

Special hazards arising from the substance or mixture

Hazardous combustion products: carbon dioxide, carbon monoxide, silicon dioxide and incompletely burnt hydrocarbons.

Advice for firefighters

Fire fighters should wear full protective clothing including a self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Secure the area. Wear personal protection equipment (see section 8). Keep unprotected persons away. If material is released indicate risk of slipping. Do not walk through spilled material.

Methods and material for containment and cleaning up

Prevent material from entering surface waters, drains or sewers and soil. Close leak if possible without risk. Contain any fluid that runs out using suitable material (e.g. earth). Retain contaminated water/extinguishing water. Dispose of in prescribed marked containers. Inform authorities if substance leaks into surface waters, sewerage or ground.

Take up mechanically and dispose of according to local/state/federal regulations. Do not flush away with water. For small amounts: Absorb with a neutral (non-acidic / non-basic) liquid binding material such as diatomaceous earth and dispose of according to government regulations. For large amounts: Liquids may be recovered using suction devices or pumps. If flammable, only air driven or properly rated electrical equipment should be used. Clean any slippery coating that remains using a detergent / soap solution or another biodegradable cleaner. Silicone fluids are slippery; spills are a safety hazard. Apply sand or other inert granular material to improve traction.

Reference to other sections

See Section 1 for emergency telephone numbers.

See Section 5 for firefighting measures.

See Section 8 for appropriate personal protective equipment.

See Section 12 for ecological information.

See Section 13 for waste disposal information.

7. HANDLING AND STORAGE

Precautions for safe handling

Ensure adequate ventilation. Must be syphoned off in situ. Spilled substance increases risk of slipping. Avoid formation of aerosols. In case of aerosol formation special protective measures are required (exhausting by suction, respiratory protection). Observe information in section 8. Keep away from incompatible substances in accordance with section 10.

Precautions against fire and explosion:

Product may release ethanol. Flammable vapors may accumulate and form explosive mixtures with air in containers, process vessels, including partial, empty and uncleaned containers and vessels, or other enclosed spaces. Keep away from sources of ignition and do not smoke. Take precautionary measures against electrostatic charging. Cool endangered containers with water.

Storage: *Conditions for storage rooms and vessels:
Observe local/state/federal regulations.*

Advice for storage of incompatible materials:
Observe local/state/federal regulations.

Further information for storage:
Store in a dry and cool place. Protect against moisture. Store container in a well ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls

Ventilation: *Use with adequate ventilation.*

Local exhaust: *Local exhaust ventilation which meets the requirements of ANSI Z9.2 is recommended to control airborne contaminants at the point of use.*

Associate substances with specific control parameters such as limit values

Maximum airborne concentrations at the workplace:

Substance	Type	mg/m ³	ppm
Ethanol	OSHA PEL	1920,0	1,000.0
Aerosol - inhalable fraction		10,0	

Re Ethanol (CAS no. 64-17-5): STEL is 1000 ppm; carcinogenicity: A3 (ACGIH).

The aerosol limit specified is a recommendation should aerosol be formed during processing.

Derived No-Effect Level (DNEL):

Triethoxy(2,4,4-trimethylpentyl)silane

Area of use:	Value:
Worker; by inhalation; systemic (long term) systemic (acute)	45 mg/m ³
Worker; dermal; systemic (long term) systemic (acute)	13,4 mg/kg/day
Consumer; by inhalation; systemic (long term)	11,3 mg/m ³
Consumer; by inhalation; systemic effects (acute/subacute)	67,8 mg/m ³
Consumer; dermal; systemic (long term)	9,5 mg/kg/day
Consumer; dermal; systemic effects (acute/subchronisch)	19 mg/kg/day
Consumer; oral; systemic (long term)	9,5 mg/kg/day
Consumer; oral; systemic (acute)	19 mg/kg/day

Predicted No Effect Concentration (PNEC):

Triethoxy(2,4,4-trimethylpentyl)silane

Area of use:	Value:
freshwater	0,64 mg/l
marine water	0,64 mg/l
Intermittent release	6,4 mg/l
Sediment (freshwater)	4,3 mg/kg dry mass
Sediment (marine water)	0,43 mg/kg dry mass
Soil	0,48 mg/kg dry mass
sewage treatment plant	1 mg/l
Secondary poisoning	10 mg/kg food

Exposure controls

Exposure in the work place limited and controlled

General protection and hygiene measures:

*Observe standard industrial hygiene practices for the handling of chemical substances.
Do not eat, drink or smoke when handling.*

Personal protection equipment (PPE)

Respiratory protection: *If inhalative exposure above the occupational exposure limit cannot be excluded, adequate respiratory protection equipment must be used. Suitable respiratory equipment: Respirator with a full face mask, according to acknowledged standards such as EN 136. Recommended Filter type: Gas filter type ABEK (certain inorganic, organic and acidic gases and vapors; ammonia/amines), according to acknowledged standards such as EN 14387*
In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit. Suitable respiratory equipment: Respirator with a full face mask, according to acknowledged standards such as EN 136. Recommended Filter type: Combined filter type ABEK-P2 (certain inorganic, organic and acidic gases and vapors; ammonia/amines; particles), according to acknowledged standards such as EN 14387
Observe the equipment manufacturer's information and wear time limits for respirators.

Eye protection: *Safety glasses with side shields or chemical safety goggles.*

Skin protection: *Protective clothing.*

Hand protection: *Protective gloves are required at all times when handling the material, according to recognized standards such as EN374.*
Recommended glove types:
Protective gloves made of butyl rubber thickness of the material: > 0,3 mm
Breakthrough time: > 480 min
Recommended glove types:
Protective gloves made of nitrile rubber thickness of the material: > 0,1 mm
Breakthrough time: > 480 min

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Note that, due to the numerous external influences (such as temperature), a chemically resistant protective glove in daily use may have a service life that is considerably shorter than the measured break through time.

Exposure to the environment limited and controlled

Prevent material from entering surface waters, drains or sewers and soil.

 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Appearance	<i>Colorless liquid</i>
Odour:	<i>Faint</i>
Odour threshold:	<i>N/A</i>
Melting point:	<i>< -100 °C (< -148 °F) at 1013 hPa (OESD 102)</i>
Boiling point/boiling range:	<i>237 °C (459 °F) at 1013 hPa (OECD 103)</i>
Flash point:	<i>42 °C (108 °F) (ISO 3679)</i>
Sustained combustibility:	<i>105 °C (221 °F) (ISO 9038)</i>
Ignition temperature:	<i>251 °C (484 °F) (EN 14522)</i>
Lower explosion limit:	<i>0.4 %(V) (DIN EN 1839)</i>
Upper explosion limit:	<i>Not determined</i>
Vapour pressure:	<i>0.089 hPa / 25 °C (77 °F) (EU-GL.A.4)</i>
Vapour pressure:	<i>0.532 hPa / 50 °C (122 °F) (EU-GL.A.4)</i>
Density:	<i>0.88 g/cm³ at 20 °C (68 °F), at 1013 hPa (DIN 51757)</i>
Water solubility:	<i>< 0.00025 g/l practically insoluble</i>
pH:	<i>Not applicable. Insoluble in water.</i>
Partition coefficient: n-octanol/water:	<i>6.1 (Log p_{OW})</i>
Viscosity, dynamic:	<i>1.9 mPa.s at 25 °C (77 °F) (DIN 51562)</i>
Viscosity, kinematic:	<i>1.98 mm²/s at 20 °C (68 °F) (DIN 51562)</i>
Further information	<i>N/A</i>
Thermal decomposition:	<i>> 150 °C (> 302 °F)</i>

 10. STABILITY AND REACTIVITY

General information:	<i>If stored and handled in accordance with standard industrial practices no hazardous reactions are known.</i>
Conditions to avoid:	<i>Moisture, heat, open flames, and other sources of ignition.</i>
Materials to avoid:	<i>Reacts with water, basic substances and acids. The reaction takes place with the formation of ethanol.</i>
Hazardous decomposition products:	<i>Ethanol by hydrolysis. Measurements have shown the formation of small amounts of</i>

formaldehyde at temperatures above about 150 °C (302 °F) through oxidation.

Further information:

Hazardous polymerization cannot occur.

Conditions to avoid hazardous polymerization: *Not applicable.*

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

Assessment: *Based on the available data acute toxic effects are not expected after single oral exposure. Based on the available data acute toxic effects are not expected after single dermal exposure. Based on the available data acute toxic effects are not expected after short-term inchoative exposure.*

Product details:

Exposure rates	Result/Effect
Oral	LD50 > 2000mg/kg Species: Rat, Method: OECD 423, Source: test report
dermal	LD50 > 2000 mg/kg Species: Rat, Method: OECD 402, Source: test report
by inhalation (spray)	LC50 > 11.2 mg/l; 4 h No mortality observed at this dose. Species: Rat, Test substance: read-across substance, Method: OECD 403, Source: test report

Skin corrosion/irritation

Assessment: *Based on the available data a clinically relevant skin irritation hazard is not expected.*
Product: *No skin irritation (Species: Rabbit, Method: OECD 404, Source: test report).*

Serious eye damage/eye irritation

Assessment: *Based on the available data a clinically relevant eye irritation hazard is not expected.*
Product: *No eye irritation (Species: Rabbit, Method: OECD 405, Source: test report).*

Respiratory or skin sensitisation

Assessment: *Based on the available data a sensitization reaction is not expected from this product.*
Product: *Skin contact. Does not cause skin sensitisation.*
(Species: Guinea pig, Test system: Maximisation Test, Method: OECD 406, Source: test report).

Germ cell mutagenicity

Assessment: *Based on known data a significant mutagenic potential may be excluded.*

negative

(Test system: mutation assay (in vitro) / bacterial cells, Method: OECD 471, Source: test report)

negative

(Test system: chromosome aberration assay (in vitro) / mammalian cells, Method: OECD 473, Source: test report)

positive (without metabolic activation), negative (with metabolic activation)

Positive results only in the presence of cytotoxicity.

(Test system: chromosome aberration assay (in vitro) / mammalian cells, Method: OECD 473, Source: test report)

negative

(Test system: mutation assay (in vitro) / mouse lymphoma cells, Test substance: read-across substance, Method: OECD 476, Source: test report)

negative

(Test system: micro nucleus assay (in vivo), Species: Mouse Application Route: Oral, Cell type: erythrocytes, Method: OECD 474, Source: test report)

Carcinogenicity

Assessment: *Based on the available toxicological data no specific evaluation of the carcinogenic potential is*

scientifically implicated.

Reproductive toxicity

Assessment: *Animal tests have shown no indications of possibility of damage to embryo and impairment of fertility.*

Toxicity/Fertility *NOAEL: >= 1000 mg/kg*

(Test system: screening test, Species: Rat, Application Route: Oral, Method: OECD 422, Source: Conclusion by analogy)

Toxicity/Development/Teratogenicity *NOAEL (developmental): >= 1000 mg/kg*
NOAEL (maternal): >= 1000 mg/kg

(Symptoms/Effect: Nothing abnormal detected., Test system: Developmental Toxicity Study, Species: Rat, Application Route: Oral, Route of administration: gavage, Frequency of Treatment: day 6 - 20 of gestation, Method: OECD 414, Source: test report)

Specific target organ toxicity - single exposure

Assessment: *For this endpoint no toxicological test data is available for the whole product.*

Specific target organ toxicity - repeated exposure

Assessment: *Based on the available data the criteria for classification as toxic after repeated exposure are not fulfilled.*

NOAEL: 150 mg/kg

The given result is based on an evaluation of the whole database for this endpoint ("weight of evidence").

(target organs: Bladder, Test system: Subacute study, Species: Rat. Application Route: Oral, Route of administration: gavage, Test period: 28 d, Frequency of Treatment: 7 d/w, Method: OECD 407, Source: test report)

NOAEC: >= 3 mg/l

(Test system: Subacute study, Species: Rat. Application Route: by inhalation, Route of administration: (spray), Test period: 28 d, Frequency of Treatment: 5 d/w, hours/day: 6, Subsequent observation period: 14 d, Test substance: read-across substance, Method: OECD 412, Source: test report)

Aspiration hazard

Assessment: *For this endpoint no toxicological test data is available for the whole product.*

Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Further toxicological information

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Other information:

Hydrolysis product / impurity: Ethanol (64-17-5) is readily absorbed at all exposure routes. Ethanol may cause irritation of eyes and mucosa, trigger dysfunction of the central nervous system and cause nausea as well as dizziness. Chronic exposure to high amounts of ethanol may cause damage to liver and central nervous system.

12. ECOLOGICAL INFORMATION

Toxicity

Semi-Static test

Oncorhynchus mykiss (rainbow trout) (96 h) LC50: > 100 mg/l (nominal)

Daphnia (water flea) (48 h) EC50: The effect level is greater than the maximum achievable concentration.

Pseudokirchneriella subcapitata (green algae) (72 h) IC50 (Growth rate): The effect level is greater than the

Activated sludge (3 h) maximum achievable concentration.
Daphnia magna (Water flea) (21 d) EC50: > 100 mg/l
NOEC (reproduction rate): 32 mg/l (measured)
The effect level is greater than the maximum achievable concentration.

Persistence and degradability

Contact with water liberates ethanol and silanol- and/or siloxanol-compounds. The hydrolysis product (Ethanol) is readily biologically degradable.

Biodegradation:

*biological oxygen demand (BOD)
13 % / 28 d. Not readily biodegradable.
Rapid biological degradation of the organic hydrolysis product.*

Hydrolysis:

*pH 7; 20 - 25 °C
Half-life: 22 h*

Bioaccumulative potential

Product(s) of hydrolysis: Bioaccumulation is not expected to occur.

Mobility in soil:

No data available.

Results of PBT and vPvB assessment

This product contains no relevant substances considered to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other adverse effects

none known.

13. DISPOSAL CONSIDERATIONS

RCRA Waste Classification:

*D001 (Ignitable)
This classification applies only to the material as it was originally produced.*

Product disposal:

Material that cannot be used, reprocessed or recycled should be disposed of in accordance with Federal, State, and local regulations at an approved facility. Depending on the regulations, waste treatment methods may include, e.g., landfill or incineration.

Packaging disposal:

Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations.

Uncleaned packaging should be treated with the same precautions as the material.

14. TRANSPORT INFORMATION

ADR *Not regulated for transport.*

RID *Not regulated for transport.*

Transport by sea IMDG-Code *Not regulated for transport.*

Air transport ICAO-TI/IATA-DGR *Not regulated for transport.*

Environmental hazards

Hazardous to the environment: *no*

Special precautions for user

Road transport: Not regulated in Class 3 - ADR/RID 2.2.3.1.1 NOTE 1 - Substance does not sustain combustion!

Rail transport: Not regulated in Class 3 - ADR/RID 2.2.3.1.1 NOTE 1 - Substance does not sustain combustion!

Ship transport: Not regulated in Class 3 - IMDG 2.3.1.3 -as the substance does not sustain combustion!

Air transport: Not regulated in Class 3 - IATA 3.3.1.3 / ICAO 3.1.3 - Substance does not sustain combustion!

Due to safety reasons no air transport in totes (IBC) or vented packaging!

Relevant information in other sections has to be considered.

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

Bulk transport in tankers is not intended.

15. REGULATORY INFORMATION

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

National and local regulations must be observed.

For information on labelling please refer to section 2 of this document.

Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances (Seveso III):

Listed in Directive	Ser.no. in list	Qualifying Quantity 1	Qualifying Quantity 2
FLAMMABLE LIQUIDS	P5c	5.000 t	50.000 t

Relevant regulations:

SI 2002/1689: CHIP Regulations 2002

SI 2002/2677: COSHH Regulations 2002

SI 1999/3242: Management of Health & Safety at Work Regulations 1999

Health & Safety at Work Act 1974

SI 1993/1643: Environmental Protection Act 1993 & Subsidiary Regulations.

Other national and local measures relating to the workplace, pollution control, environmental protection and

Other specifications, restrictions and prohibitions:

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals: *Not applicable*

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors - ANNEX I. RESTRICTED EXPLOSIVES PRECURSORS: *Not applicable*

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors - ANNEX II. REPORTABLE EXPLOSIVES PRECURSORS: *Not applicable*

Details of international registration status

Japan: *ENCS (Handbook of Existing and New Chemical Substances):
This product is listed in, or complies with, the substance inventory.*

New Zealand: *NZIoC (New Zealand Inventory of Chemicals):
This product is not listed or in compliance with the substance inventory.*

Australia: *AiIC (Australian Inventory of Industrial Chemicals):
This product is listed in, or complies with, the substance inventory.*

China: *IECSC (Inventory of Existing Chemical Substances in China):
This product is listed in, or complies with, the substance inventory.*

Canada: *DSL (Domestic Substance List):
This product is listed in, or complies with, the substance inventory.*

Philippines: *PICCS (Philippine Inventory of Chemicals and Chemical Substances):
This product is listed in, or complies with, the substance inventory.*

United States of America (USA): *TSCA (Toxic Substance Control Act Chemical Substance Inventory):
All components of this product are listed as active or are in compliance with the substance inventory.*

Taiwan: *TCSI (Taiwan Chemical Substance Inventory):
This product is listed in, or complies with, the substance inventory. General note: The Taiwanese chemicals regulation requires a phase 1 registration for TCSI-listed or TCSI-compliant substances if imports to Taiwan or manufacturing in Taiwan exceed the trigger quantity of 100 kg/a (for mixtures to be calculated per each ingredient). It is the duty of the importing/manufacturing legal entity to take care of this obligation.*

European Economic Area (EEA): *REACH (Regulation (EC) No 1907/2006):
General note: the registration obligations for substances imported into the EEA or manufactured within the EEA by the supplier mentioned in section 1 are fulfilled by the said supplier. The registration obligations for substances imported into the EEA by customers or other downstream users must be fulfilled by the latter.*

South Korea (Republic of Korea):
*AREC (Act on Registration and Evaluation of Chemicals; "K-REACH"):
Please approach your regular contact for more detailed information.*

Chemical safety assessment

For this product, a chemical safety assessment according to (EC) regulation 1907/2006 (REACH) has been carried out.

16. OTHER INFORMATION

Identified uses (REACH)

All identified uses have been summarized tabularly. The uses are linked to the subsequently described exposure scenarios by the sequential exposure scenario number given in the table.

Formulation of coatings and plasters; industrial	ES no.
SU 3 - ERC2, ERC5 - PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9 - SU 10, SU13 - PC9a, PC9b	1
Use of coatings and plasters; professional	
SU 22 - ERC5, ERC8c, ERC8f - PROC10, PROC11, PROC19 - SU13, SU19 - PC9a, PC9b	2
Use of coatings and plasters; consumer	
SU 21 - ERC5, ERC8c, ERC8f - PROC10, PROC11, PROC19 - SU13, SU19 - PC9a, PC9b	3
Formulation of masonry treatment products; industrial	
SU 3 - ERC2, ERC5 - PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9 - SU 10, SU13 - PC0	4
In mass hydrophobation; industriell	
SU 3 - ERC2, ERC5, ERC6a, ERC8f - PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC19 - SU 10, SU13, SU19 - PC15, PC0	5
In mass hydrophobation; professional	
SU 22 - ERC8f - PROC19 - SU13, SU19 - PC15, PC0	6
In mass hydrophobation; consumer	
SU 21 - ERC8f - PROC19 - PC15, PC0	7
Use of masonry treatment products; industrial	
SU 3 - ERC5, ERC6a, ERC8f - PROC7, PROC8b, PROC10, PROC13, PROC19 - SU13, SU19 - PC0	8
Use of masonry treatment products; professional	
SU 22 - ERC8c, ERC8f - PROC10, PROC11, PROC13, PROC19 - SU13, SU19 - PC0	9
Use of masonry treatment products; Consumer	
SU 21 - ERC8c, ERC8f - PROC10, PROC11, PROC13, PROC19 - SU13, SU19 - PC0	10
Use as laboratory reagent; industrial	
SU 3 - PROC15 - SU24 - PC21	11

Key or legend to abbreviations and acronyms used in the safety data sheet

ABEK - Multi-Range Filter A, B, E, K; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; APF - Assigned Protection Factor; CAS No. - Chemical Abstracts Service Registry Number; DFG - German Research Foundation; DIN - German institute for standardization; DOC - Dissolved Organic Carbon; d/w - days per week; EC / CE / EG - European Community; EC50 / CE50 - Median effective concentration; ECHA - European Chemicals Agency; ED - endocrine disruptor; EG-RL - test method according to Regulation 440/2008; EN - European Standard; ERC - Environmental Release Category; g/cm³ - gram per cubic centimeter; h - hour(s); H-Code - hazard statement code(s); hPa - Hectopascal; IATA Regs - International Air Transport Association (IATA) Dangerous Goods Regulations; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 / CI50 - half maximal inhibitory concentration; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IMDG Code - International Maritime Dangerous Goods Code; ISO - International Organization for Standardization; LC50 / CL50 - medium lethal concentration; LD50 / DL50 - medium lethal dose; LOAEC - Lowest Observed Adverse Effect Concentration; LOAEL - Lowest Observed Adverse Effect Level; MARPOL - International Convention for the Prevention of Marine Pollution from Ships; mg/g - milligrams per gram; mg/kg - milligrams per kilogram; mg/l - milligrams per liter; mg/m³ - milligrams

per cubic meter; min - minutes; mJ - millijoule; mm - millimeter; mm²/s - square millimeter per second; mPa.s - Millipascal second(s); MSDS / SDB / SDS - safety data sheet; No Observed Adverse Effect Concentration; NOAEL - No Observed adverse effect level; NOEC - No Observed Effect Concentration; NOEL - No Observed Effect Level; OECD - Organization for Economic Cooperation and Development; PBT - persistent, bioaccumulative, toxic; PC - product category; P-Code - precautionary statement code(s); ppm - parts per million; PROC - process category; RCP - reciprocal calculation-based procedure; RID - convention concerning international carriage by rail; SU - sector of use; SVHC - substance of very high concern; Vol% - volume percent; UN No. - United Nations Dangerous Goods Number; vPvB - very Persistent, very Bioaccumulative

Complete texts of hazard categories and phrases:

Flamm. Liq. 3, H226 - Flammable liquids Category 3; Flammable liquid and vapour.

Other information:

This safety data sheet summarizes the best knowledge we have at the time of issuing this safety data sheet about the health and safety risks of the product, and in particular about the safe handling and use of the product in the workplace. As SL Protection OÜ cannot foresee or control the conditions under which the product is used, each user must use the safety data sheet before using the product to find out how the product must be handled and used at the workplace.

If the user requires further explanation or additional information about the product, they should contact our company. Our liability regarding the sold product is defined by the standard terms and conditions, a copy of which has been sent to our customers and is also available on request.

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Contact person / technical support contact:

SL Protection OÜ

Phone: (+372) 55666174

E-mail: info@slprotection.eu

Limitation of liability

For general safety and handling information, please contact SL Protection OÜ. This information is based on our experiences and best knowledge. There is no guarantee for any recommendations or advice. We are not responsible for the completeness or accuracy of this information.