

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture
Trade name : Silirub 2S

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Main use category : Professional use, Consumer use
Use of the substance/mixture : Sealants

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Soudal N.V. N.V.
Everdongenlaan 18-20
2300 Turnhout
Belgium
T +32 14 42 42 31 - F +32 14 42 65 14
sds@soudal.com - www.Soudal.com

1.4. Emergency telephone number

Emergency number : +32 14 58 45 45 (BIG)
24h/24h

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

EUH-statements : EUH210 - Safety data sheet available on request.
EUH211 - Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist. (Except for black/brown/transparent product).

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component

2-octyl-2H-isothiazol-3-one (26530-20-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
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The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-pentanone,O,O',O''-(methylsilyldiyl)trioxime	CAS-No.: 37859-55-5 EC-No.: 484-460-1 REACH-no: 01-2120004323-76	≥ 1 – < 5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Eye Irrit. 2, H319
2-octyl-2H-isothiazol-3-one	CAS-No.: 26530-20-1 EC-No.: 247-761-7 EC Index-No.: 613-112-00-5 REACH-no: 01-2120768921-45	< 0,1	Acute Tox. 2 (Inhalation), H330 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Oral), H301 Skin Corr. 1, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)

Specific concentration limits:

Name	Product identifier	Specific concentration limits
2-octyl-2H-isothiazol-3-one	CAS-No.: 26530-20-1 EC-No.: 247-761-7 EC Index-No.: 613-112-00-5 REACH-no: 01-2120768921-45	(0,0015 ≤ C ≤ 100) Skin Sens. 1A, H317

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth out with water. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

No additional information available

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: None known.

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5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Scoop solid spill into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry area. Store at room temperature. Store in a well-ventilated place. Keep container closed when not in use.

Packaging materials : Synthetic material.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

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8.1.4. DNEL and PNEC

2-pentanone,O,O',O''-(methylsilyldiyl)trioxime (37859-55-5)	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	0,624 mg/kg bodyweight/day
Acute - systemic effects, inhalation	2,205 mg/m³
Long-term - systemic effects, dermal	0,065 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0,229 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, dermal	0,375 mg/kg bodyweight/day
Acute - systemic effects, inhalation	0,651 mg/m³
Acute - systemic effects, oral	0,375 mg/kg bodyweight/day
Long-term - systemic effects, oral	0,033 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0,057 mg/m³
Long-term - systemic effects, dermal	0,033 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0,1 mg/l
PNEC aqua (marine water)	0,01 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0,569 mg/kg dwt
PNEC sediment (marine water)	0,057 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,044 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	2,15 mg/l
titanium dioxide (13463-67-7)	
DNEL/DMEL (Workers)	
Long-term - local effects, inhalation	10 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	700 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0,184 mg/l
PNEC aqua (marine water)	0,0184 mg/l
PNEC aqua (intermittent, freshwater)	0,193 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	1000 mg/kg dwt
PNEC sediment (marine water)	100 mg/kg dwt
PNEC (Soil)	
PNEC soil	100 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

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8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Variable.
Appearance	: Pasty.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not applicable
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: > 100 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: Not available
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available

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Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: 1,035 kg/l (20°C)
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content : 0,21 – 0,92 % (2.12 g/l - 9.49g/l)

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

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

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

2-pentanone,O,O',O''-(methylsilyldiylne)trioxime (37859-55-5)

LD50 oral rat	1234 mg/kg (OECD 425 (Acute Oral Toxicity: Up-and-Down Procedure))
LD50 dermal rat	> 1782 (EU method B.3 (Acute Toxicity Dermal))

2-octyl-2H-isothiazol-3-one (26530-20-1)

LD50 oral rat	550 mg/kg (Rat, Literature study, Oral)
LD50 dermal rabbit	690 mg/kg bodyweight (Rabbit, Literature study, Dermal)
LC50 Inhalation - Rat	> 2 mg/m³ (4 h, Rat, Literature study, Inhalation (vapours))

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified. (On basis of test data. Skin sensitisation Not classified)

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Skin Sensitisation (test on mixture), Guinea pig, In vivo	Not sensitising (OECD 406 - Guinea Pigs (Buehler Method))
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified.
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified

2-pentanone,O,O',O''-(methylsilyldiyl)trioxime (37859-55-5)

NOAEL (oral, rat, 90 days)	15 mg/kg bodyweight (Animal: rat, Guideline: OECD 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test))
Aspiration hazard	: Not classified

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified
Not rapidly degradable	

2-pentanone,O,O',O''-(methylsilyldiyl)trioxime (37859-55-5)

LC50 - Fish [1]	> 113 mg/l (OECD203; Test organisms (species): Oncorhynchus mykiss; 96h)
EC50 - Crustacea [1]	> 113 mg/l (OECD202; Test organisms (species): Daphnia Magna; 48h)
ErC50 algae	88 mg/l (OECD201; Test organisms (species): Pseudokirchneriella subcapitata; 72h)

2-octyl-2H-isothiazol-3-one (26530-20-1)

LC50 - Fish [1]	0,14 mg/l (96 h, Pimephales promelas, Literature study)
LC50 - Fish [2]	0,05 mg/l (96 h, Oncorhynchus mykiss, Literature study)
EC50 - Crustacea [1]	0,18 mg/l (48 h, Daphnia magna, Literature study)
EC50 - Crustacea [2]	0,32 mg/l (48 h, Daphnia magna, Literature study)

12.2. Persistence and degradability

2-pentanone,O,O',O''-(methylsilyldiyl)trioxime (37859-55-5)

Biodegradation	1 % (OECD 301B (CO ₂ Evolution Test); 28d)
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2-octyl-2H-isothiazol-3-one (26530-20-1)

Persistence and degradability	Inherently biodegradable.
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12.3. Bioaccumulative potential

2-pentanone,O,O',O''-(methylsilyldiyl)trioxime (37859-55-5)

Partition coefficient n-octanol/water (Log Pow)	1,25
Bioaccumulative potential	Bioaccumulation unlikely.

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2-octyl-2H-isothiazol-3-one (26530-20-1)

BCF - Fish [1]	1280 (67 day(s), Lepomis macrochirus, Flow-through system, Literature study)
Partition coefficient n-octanol/water (Log Pow)	2,45 (Experimental value)
Bioaccumulative potential	Potential for bioaccumulation ($500 \leq \text{BCF} \leq 5000$).

12.4. Mobility in soil

2-octyl-2H-isothiazol-3-one (26530-20-1)

Ecology - soil	No (test)data on mobility of the substance available.
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12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Non hazardous waste.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Do not discharge into drains or the environment.
Ecology - waste materials	: Avoid release to the environment.
European List of Waste (LoW) code	: 08 04 10 - waste adhesives and sealants other than those mentioned in 08 04 09 15 01 02 - plastic packaging

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID /

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

14.6. Special precautions for user

Overland transport

Not regulated

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Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(b)	2-pentanone,O,O',O"- (methylsilylidyne)trioxime ; 2-octyl-2H-isothiazol-3- one	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	2-octyl-2H-isothiazol-3- one	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

VOC content : 0,21 – 0,92 % (2.12 g/l - 9.49g/l)

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

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SECTION 16: Other information

Indication of changes

Section	Changed item	Change	Comments
	according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878		

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Full text of H- and EUH-statements:

Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4

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Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
EUH210	Safety data sheet available on request.
EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist. (Except for black/brown/transparent product)
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful 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.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A

Safety Data Sheet (SDS), EU-20212

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.