

1. Identification of the substance/mixture and of the company/ undertaking

1.1 Identification of the substance or preparation:

Product Name: SILIRUB 2S

1.2 Use of the substance/preparation:

Sealant

1.3 Company/undertaking identification:

SOULDAL N.V., Everdongenlaan

18-20 B-2300 Turnhout, Tel: +32 14 42 42 31 Fax: +32 14 44 39 71

e-mail address: msds@soudal.com

1.4 Emergency telephone:

+32 14 58 45 45 (24/24 h)

Brandweerinformatiecentrum voor Gevaarlijke Stoffen

2. Hazards identification

May produce an allergic reaction

3. Composition/information on ingredients

3.2 Chemical characterisation:

Mixtures

Description: Mixture of several substances

Hazardous ingredients	CAS No. EINECS/ELINCS No.	Conc. (%)	Hazards (R-phrases)	Hazard symbol
butan-2-one O,O',O''-(vinylsilyldiylidene) trioxime	2224-33-1 218-747-8	0.1 - <1	38-41-43 (1)	Xi
2-butanone oxime	96-29-7 202-496-6	0.1 - <1	21-40-41-43 (1)(2)	Xn
butan-2-one O,O',O''-(methylsilyldiylidene) trioxime	22984-54-9 245-366-4	0.1 - <1	36/38-43 (1)	Xi

(1) For R-phrases in full: see heading 16

(2) Substance with a Community workplace exposure limit

(3) PBT-substance

4. First aid measures

4.1 After inhalation:

Remove the victim into fresh air

Respiratory difficulties: consult a doctor/medical service

4.2 Skin contact:

Rinse immediately with plenty of water Soap may be used. Take victim to a doctor if irritation persists

4.3 Eye contact:

Rinse with water. Take victim to an ophthalmologist if irritation persists.

4.4 After ingestion:

Rinse mouth with water. If you feel unwell: consult a doctor/medical service.

5. Firefighting measures

5.1 Suitable extinguishing media:

Water spray Polyvalent foam ABC

powder Carbon dioxide.

5.2 Unsuitable extinguishing media:

No data available.

5.3 Special exposure hazards:

Not easily combustible.

5.4 Instructions:

No specific fire-fighting instructions required.

5.5 Special protective equipment for firefighters:

Heat/fire exposure: compressed.

6. Accidental release measures

6.1 Personal precautions:

See heading 8.2.

6.2 Environmental precautions:

Use appropriate containment to avoid environmental contamination Contain released substance. See heading 13.

6.3 Methods for cleaning up:

Shovel solid spill into closing drums. Clean contaminated surfaces with a soap solution Wash clothing and equipment after handling.

7. Handling and storage

7.1 Handling:

Observe strict hygiene. Remove contaminated clothing immediately. Clean contaminated clothing.

7.2 Storage:

Keep container tightly closed. Store in a dry area.

Keep container in a well-ventilated place.

Keep away from: heat sources, oxidizing agents.

Storage temperature: 20°C.

Quantity limit: N.D. kg

Storage life: N.D. days

Materials for packaging: suitable plastic

7.3 Specific use(s):

See information supplied by the manufacturer for the identified use(s).

8. Exposure controls/personal protection*

8.1 Exposure limit values:

8.1.1 Occupational exposure:

2-BUTANONE OXIME: MAK: - mg/m³ - ppm

8.1.2 Sampling methods:

No data available.

8.2 Exposure controls:

8.2.1 Occupational exposure controls:

Work under local exhaust/ventilation.

Personal protective equipment:

Respiratory protection: Respiratory protection not required for normal conditions of use.

Hand protection: Gloves.

Eye protection: Safety glasses.

Skin protection: Protective clothing.

8.2.2 Environmental exposure controls:

see heading 6.2, 6.3 and 13

9. Physical and chemical properties

9.1 General information:

Appearance (at 20°C): Paste.

Odour: Characteristic.

Colour: Variable in colour.

9.2 Important health, safety and environmental information:

pH value (at 20°C): N.D.

Boiling point/boiling range: N.D. °C

Flashpoint/flammability: > 100 °C

Explosion limits (explosive properties): N.D. vol%

Oxidising properties: N.D.

Vapour pressure (at 20°C): N.D.

hPa Vapour pressure (at 50°C): N.D. hPa

Relative density (at 20°C): 1

Water solubility: Insoluble

Soluble in: No data available

Relative vapour density: N.D. Viscosity (at °C): N.D. Pa.s

Partition coefficient n-octanol/water: N.D.

Evaporation rate: N.D.

Ratio to butyl acetate: N.D.

Ratio to ether: N.D.

9.3 Other information:

Melting point/melting range: N.D. °C

Auto-ignition point: N.D. °C

Saturation concentration: N.D. g/m³

Specific conductivity: N.D. pS/m

10. Stability and reactivity

10.1 Conditions to avoid:

Stable under normal conditions.

10.2 Materials to avoid:

Keep away from: heat sources, oxidizing agents.

10.3 Hazardous decomposition products:

Upon combustion CO and CO₂ are formed.

11. Toxicological information

11.1 Acute toxicity:

butan-2-one O,O',O''-(vinylsilyldiylidene)trioxime: LD50 oral rat: 2270 mg/kg

2-Butanone Oxime: LD50 oral rat: > 930 mg/kg

LD50 dermal rabbit: > 2000 mg/kg

LC50 inhalation rat: 20 mg/l/4 h

butan-2-one O,O',O''-(methylsilyldiylidene)trioxime: LD50 oral rat: 2250 mg/kg

11.2 Chronic toxicity:

2-Butanone Oxime:

EC carc. cat.: 3

EC muta. cat.: not listed EC repr. cat.: not listed

Carcinogenicity (TLV): not listed Carcinogenicity (MAC): not listed

Carcinogenicity (VME): not listed Carcinogenicity (GWBB): not listed

Carcinogenicity (MAK): category 2 Mutagenicity (MAK): not listed

Teratogenicity (MAK): Group - IARC classification: not listed

11.3 Routes of exposure:

ingestion, inhalation, eye and skin

11.4 Acute effects/symptoms:

After skin contact: Slight irritation.

After eye contact: Slight irritation.

11.5 Chronic effects: May produce an allergic reaction. Not listed in carcinogenicity class (IARC,EC,TLV,MAK) Not listed in mutagenicity class (EC,MAK). Not classified as toxic to reproduction (EC).

On continuous exposure/contact: Skin rash/inflammation

12. Ecological information

12.1 Ecotoxicity:

2-butanone oxime:

LC50 (96 h): 48 mg/l (LEPOMIS MACROCHIRUS) EC50 (48 h): 750 mg/l (DAPHNIA MAGNA)

EC50 (72 h): 83 mg/l (SCENEDESMUS SUBSPICATUS)

butan-2-one O,O',O''-(methylsilyldiyl)trioxime: LC50 (96 h): >560 mg/l (PISCES)

EC50 (48 h): 750 mg/l (DAPHNIA MAGNA)

Effect on waste water purification: No data available

12.2 Mobility:

Volatile organic compounds (VOC): 0.135% Volatile organic compounds

(VOC): g/l Insoluble in water

For other physicochemical properties see heading 9

12.3 Persistence and degradability:

Biodegradation BOD5: N.D. % ThOD Water: No data available

Soil: T ½ N.D. days

12.4 Bioaccumulative potential:

log Pow: N.D. BCF: N.D.

12.5 Results of PBT assessment:

Not applicable, on the basis of the available data.

12.6 Other adverse effects:

WGK: 1 (Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 17 May 1999)

Effect on the ozone layer: Not dangerous for the ozone layer (1999/45/EC)

Greenhouse effect: No data available

13. Disposal considerations

13.1 Provisions relating to waste: Waste material code (75/442/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 08 04 10 (waste adhesives and sealants other than those mentioned in 08 04 09) LWCA (the Netherlands): KGA category 05. Remove waste in accordance with local and/or national regulations.

13.2 Disposal methods: Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery. Do not discharge into drains or the environment.

13.3 Packaging: Waste material code packaging (75/442/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 15 01 02 (plastic packaging)

14. Transport information

14.1 Classification of the substance in compliance with UN

Recommendations

UN number:

CLASS: Not subject SUB RISKS:

PACKING GROUP:

14.2 ADR (transport by road)

CLASS: Not subject

PACKING GROUP:

CLASSIFICATION CODE:

DANGER LABEL TANKS:

DANGER LABEL PACKAGES:

PROPER SHIPPING NAME:

14.3 RID (transport by rail)

CLASS: Not subject

PACKING GROUP:

CLASSIFICATION CODE:

DANGER LABEL TANKS:

DANGER LABEL PACKAGES:

PROPER SHIPPING NAME:

14.4 ADNR (transport by inland waterways)

CLASS: Not subject

PACKING GROUP:

CLASSIFICATION CODE:

DANGER LABEL TANKS:

DANGER LABEL PACKAGES:

14.5 IMDG (maritime transport)

CLASS: Not subject

SUB RISKS:

PACKING GROUP:

MFAG:

EMS:

MARINE POLLUTANT:

14.6 ICAO (air freight) CLASS: Not subject

SUB RISKS:

PACKING GROUP:

PACKING INSTRUCTIONS PASSENGER AIRCRAFT:

PACKING INSTRUCTIONS CARGO AIRCRAFT:

14.7 Special precautions:

Not restricted for any mode of international transport.

15. Regulatory information

15.1 EU Legislation:

Labelling in accordance with EC directives 67/548/EEC, 1999/45/EC and 2006/8/EC

Contains 2-butanone oxime; butan-2-one O,O',O''-(methylsilyldiyl)trioxime; butan-2-one O,O',O''-(vinylsilyldiyl)trioxime. May produce an allergic reaction.

15.2 National provisions: the Netherlands:

Waterbezwaarlijkheid: 11 Germany:

WGK: 1 (Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 17 May 1999)

16. Other information

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

N.A. = NOT APPLICABLE

N.D. = NOT DETERMINED

(*) = INTERNAL CLASSIFICATION (NFPA)

PBT-substances = persistent, bioaccumulative and toxic substances

Exposure limits:

TLV: Threshold Limit Value - ACGIH US

WEL: Workplace Exposure Limits - United Kingdom

TRGS 900: Technische Regel für Gefahrstoffe 900

(Arbeitsplatzgrenzwerte) - Germany

MAK: Maximale Arbeitsplatzkonzentrationen - Germany GWBNI:

Grenswaarde voor blootstelling - the Netherlands GWKNI: Grenswaarde

korte duur - the Netherlands

VME: Valeurs limites de Moyenne d'Exposition - France

VLE: Valeurs limites d'Exposition à court terme - France GWBB:

Grenswaarde beroepsmatige blootstelling - Belgium GWK: Grenswaarde

kortstondige blootstelling - Belgium

EC: Indicative occupational exposure limit values

I: Inhalable fraction = T: Total dust = E: Einatembare Aerosolanteil

R: Respirable fraction = A: Alveolengängiger Aerosolanteil/Alveolar dust

C: Ceiling limit

a: aerosol r: rook/Rauch (fume)

d: damp (vapour) st: stof/Staub (dust)

du: dust ve: vezel (fibre) fa: Faser (fibre) va: vapour fi: fibre om: oil mist

fu: fume on: olienevel/Ölnebel (oil mist) p: poussière (dust) part: particles

Chronic toxicity:

K: List of the carcinogenic substances and processes - The Netherlands

Full text of any R-phrases referred to under headings 2 and 3:

R21: Harmful in contact with skin R36/38: Irritating to eyes and skin R38:

Irritating to skin

R40: Possible risks of carcinogenic effects R41: Risk of serious damage to eyes

R43: May cause sensitization by skin contact