

Silirub 2**1. Identification of the substance/preparation and the company****1.1 Identification of the substance or preparation:**

Product name: Silirub 2

1.2 Use of the substance or the preparation:

Sealing compound

1.3 Company/undertaking identification:

SODAL N.V.
Everdongenlaan 18-20
B-2300 Turnhout
Tel: +32 14 42 42 31
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e-mail address: msds@soudal.com

1.4 Emergency telephone:

+32 14 58 45 45 (24/24 h)
Information centre on dangerous goods (BIG)
Technische Schoolstraat 43 A, B-2440 Geel, Belgium

2. Composition/information on ingredients

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

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

3. Hazards identification

- May produce an allergic reaction

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4. First aid measures

- 4.1 Eye contact:**
- If irritation persists: consult a doctor/medical service
 - Rinse with water
- 4.2 Skin contact:**
- If irritation persists: consult a doctor/medical service
 - Rinse immediately with plenty of water
 - Soap may be used
- 4.3 After inhalation:**
- If breathing problems develop: consult a doctor/medical service
 - Remove the victim into fresh air
 - Unconscious: maintain adequate airway and respiration
- 4.4 After ingestion:**
- If you feel unwell: consult a doctor/medical service
 - Never give water to an unconscious person

5. Fire-fighting measures

- 5.1 Suitable extinguishing media:**
- Polyvalent foam
 - ABC powder
 - Carbon dioxide
- 5.2 Unsuitable extinguishing media:**
- None
- 5.3 Special exposure hazards:**
- Not easily combustible
 - On burning: release of toxic and corrosive gases/vapours: nitrous vapours, carbon monoxide and carbon dioxide
- 5.4 Instructions:**
- Dilute toxic gases with water spray
- 5.5 Special protective equipment for firefighters:**
- Heat/fire exposure: compressed air/oxygen apparatus
 - Protective clothing for exposure to chemicals

6. Accidental release measures

- 6.1 Personal protection/precautions:**
- See heading 8.2
- 6.2 Environmental precautions:**
- Use appropriate containment to avoid environmental contamination
 - See heading 13
- 6.3 Methods of cleaning up:**
- Shovel solid spill into closing drums
 - Clean contaminated surfaces with a soap solution

7. Handling and storage

7.1 Handling:

- Observe strict hygiene
- Do not discharge the waste into the drain

7.2 Storage:

- Keep container tightly closed
- Store in a dry area

- Keep away from: heat sources

Storage temperature	: N.D.	°C
Quantity limit	: N.D.	kg
Storage life	: 365	days
Materials for packaging	:	
- suitable	: synthetic material	

7.3 Specific uses:

- See information supplied by the manufacturer

8. Exposure controls/Personal protection

8.1 Exposure limit values:

TLV-TWA	: not listed
TLV-STEL	: not listed
TLV-Ceiling	: not listed
WEL-LTEL	: not listed
WEL-STEL	: not listed
TRGS 900	: not listed
MAK	: not listed
GWBNI 8 h	: not listed
GWKNI 15 min.	: not listed
Ceiling	: not listed
VME-8 h	: not listed
VLE-15 min.	: not listed
GWBB-8 h	: not listed
GWK-15 min.	: not listed
Momentary value	: not listed
EC	: not listed
EC-STEL	: not listed

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8.2 Exposure controls:

8.2.1 Occupational exposure controls:

- Use only in well ventilated area

8.2.2 Environmental exposure controls: see heading 13

8.3 Personal protection:

8.3.1 respiratory protection:

- Respiratory protection not required for normal conditions of use

8.3.2 hand protection:

- Gloves

8.3.3 eye protection:

- Safety glasses

8.3.4 skin protection:

- Protective clothing

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	: N.D.	
Boiling point/boiling range	: N.D.	°C
Flashpoint	: > 200	°C
Explosion limits	: N.D.	Vol%
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 20°C)	: N.D.	Pa.s
Partition coefficient n-octanol/water	: N.D.	
Evaporation rate		
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/m ³

10. Stability and reactivity

10.1 Conditions to avoid/reactivity:

- Stable under normal conditions

10.2 Materials to avoid:

- Keep away from: heat sources

10.3 Hazardous decomposition products:

- On burning: release of toxic and corrosive gases/vapours: nitrous vapours, carbon monoxide and carbon dioxide

11. Toxicological information

11.1 Acute toxicity:

BUTANE-2-ON-O,N-O,N'--(METHYLSILYLIDYN)TRIOXIME:

LD50 oral rat : 2250 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

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:

- Practically non-toxic

11.5 Chronic effects:

- May produce an allergic reaction
- Contains substance of group C (MAK-Schwangerschaftsgruppe)
- Not listed in carcinogenicity class (IARC,EC,TLV,MAK)
- Not listed in mutagenicity class (EC,MAK)

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)

12.2 Mobility:

- Volatile organic compounds (VOC): 1%
- Insoluble in water
- Substance sinks 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 P_{ow} : N.D.
- BCF : N.D.

12.5 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
- Effect on waste water purification : 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)

13.2 Disposal methods:

- Remove to an authorized waste treatment plant

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 :
 PROPER SHIPPING NAME :

14.2 ADR (transport by road)

CLASS : NOT SUBJECT
 PACKING :
 CLASSIFICATION CODE :
 DANGER LABEL TANKS :
 DANGER LABEL PACKAGES :

14.3 RID (transport by rail)

CLASS : NOT SUBJECT
 PACKING :
 CLASSIFICATION CODE :
 DANGER LABEL TANKS :
 DANGER LABEL PACKAGES :

14.4 ADNR (transport by inland waterways)

CLASS : NOT SUBJECT
 PACKING :
 CLASSIFICATION CODE :
 DANGER LABEL TANKS :
 DANGER LABEL PACKAGES :

14.5 IMDG (maritime transport)

CLASS : NOT SUBJECT
 SUB RISKS :
 PACKING :
 MFG :
 EMS :
 MARINE POLLUTANT :

14.6 ICAO (air transport)

CLASS : NOT SUBJECT
 SUB RISKS :
 PACKING :
 PACKING INSTRUCTIONS PASSENGER AIRCRAFT :
 PACKING INSTRUCTIONS CARGO AIRCRAFT :

14.7 Special precautions in connection with transport

: Not restricted for any mode of international transport

15. Regulatory information

15.1 EU Legislation:

Not classified as dangerous in compliance with Directive 67/548/EEC and/or Directive 1999/45/EC

Contains 2-butanone oxime and butan-2-one O,O',O''-(methylsilylydyne)trioxime. May produce an allergic reaction.

15.2 National provisions:

the Netherlands:

Waterbezwaarlijkheid: N.D.

Germany:

Wassergefährdungsklasse

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 MSDS 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)

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
MAC : Maximale aanvaarde concentratie - 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 - directive 2000/39/EC

I : Inhalable fraction = **T** : Total dust = **E** : Einatembarer 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 heading 2:

R21 : Harmful in contact with skin
R36/38 : Irritating to eyes and skin
R40 : Possible risks of carcinogenic effects
R41 : Risk of serious damage to eyes
R43 : May cause sensitization by skin contact