

SAFETY DATA SHEET**SILIRUB MA****1. Identification of the substance/preparation and of the company/undertaking**

- 1.1 Identification of the substance or preparation:**
- SILIRUB MA
- 1.2 Use of the substance or the preparation:**
Sealant
- 1.3 Company/undertaking identification:**
SODAL N.V.
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2. Composition/information on ingredients

Hazardous ingredients	CAS-NO. EINECS-NO. ELINCS-NO.	Conc. in %	Hazard symbol	Risks (R-phrases)
butane-2-on-0,0',0''-(vinylsilylidyn)trioxim (*)	2224-33-1 218-747-8	0.1 - 1.0	Xi	38-41-43 (1)
oximo silane 1200	37859-57-7 423-580-0-	1.0 - 5.0	Xn	48/22-53 (1)
butane-2-on-0,0',0''-(methylsilylidyn)trioxim (*)	22984-54-9 245-366-4	1.0 - 5.0	Xi	36/38-43 (1)

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

3. Hazards identification

- No hazard classification according to Directive 67/548/EEC and 1999/45/EC
- * Butane-2-on-0,0',0''-(vinylsilylidyn)trioxim and butane-2-on-0,0',0''-(methylsilylidyn)trioxim react with water (moisture): release of 2-butanone oxime (EINECS-nr: 202-496-6; conc <1% - Xn R:21-40-41-43)

4. First aid measures

- 4.1 Eye contact:**
- Rinse immediately with plenty of water
 - Seek medical advice
- 4.2 Skin contact:**
- Wash immediately with lots of water
 - If irritation persists: seek medical advice
- 4.3 After inhalation:**
- Remove the victim into fresh air
 - Seek medical advice
- 4.4 After ingestion:**
- Never give water to an unconscious person
 - Do not induce vomiting
 - Seek medical advice

5. Fire-fighting measures

- 5.1 Suitable extinguishing media:**
- Water spray
 - Polyvalent foam
 - ABC powder
 - Carbon dioxide
- 5.2 Unsuitable extinguishing media:**
- None
- 5.3 Special exposure hazards:**
- Not easily combustible
 - On burning: release of e.g. carbon monoxide and carbon dioxide
- 5.4 Instructions:**
- No specific firefighting instructions required
- 5.5 Special protective equipment for firefighters:**
- Heat/fire exposure: compressed air/oxygen apparatus

6. Accidental release measures

- 6.1 Personal protection/precautions:**
See heading 8.1/8.3/10.3
- 6.2 Environmental precautions:**
- Use appropriate containment to avoid environmental contamination
- 6.3 Methods of cleaning up:**
- Remove the product by mechanical means
 - Clean contaminated surfaces with a soap solution
 - Wash clothing and equipment after handling

7. Handling and storage

- 7.1 Handling:**
- Observe normal hygiene standards
 - Clean contaminated clothing
- 7.2 Storage:**
- Keep container tightly closed
 - Store in a dry area
 - Keep away from: heat sources, oxidizing agents
- Storage temperature** : Room temperature
Quantity limit : N.D.
Storage life : 365 days
Materials for packaging :
- suitable : plastic
- 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

OES-LTEL : not listed
OES-STEL : not listed
MEL-LTEL : not listed
MEL-STEL : not listed

MAK : not listed
TRK : not listed

MAC-TGG 8 h : not listed
MAC-TGG 15 min. : not listed
MAC-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

8.2 Exposure controls:

8.2.1 Occupational exposure controls:
- Work under local exhaust/ventilation

8.2.2 Environmental exposure controls: see heading 13

8.3 Personal protection:

8.3.1 respiratory protection:
- Respiratory protection not required in normal conditions

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.A.	°C
Flashpoint	: > 100	°C
Explosion limits	: N.D.	vol% (°C)
Vapour pressure (at 20°C)	: N.D.	hPa
Vapour pressure (at 50°C)	: N.D.	hPa
Relative density (at 20°C)	: N.D.	
Water solubility	: Insoluble	
Soluble in	: N.D.	
Relative vapour density	: N.D.	
Viscosity	: 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.A.	°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:

- Heat sources, oxidizing agents

10.3 Hazardous decomposition products:

- On burning: release of e.g. carbon monoxide and carbon dioxide

11. Toxicological information**11.1 Acute toxicity:**

LD50 oral rat	: N.D.	mg/kg
LD50 dermal rabbit	: N.D.	mg/kg
LD50 dermal rabbit	: N.D.	mg/kg
LC50 inhalation rat	: N.D.	mg/l/4 h
LC50 inhalation rat	: N.D.	ppm/4 h

11.2 Chronic toxicity:

EC carc. cat.	: not listed
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)	: not listed
Mutagenicity (MAK)	: not listed
Teratogenicity (MAK)	: not listed
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:

- None known

12. Ecological information**12.1 Ecotoxicity:**

- No data available

12.2 Mobility:

- Volatile organic compounds (VOC): 3 %
- Insoluble in water

For other physicochemical properties see section 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. Waste 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 incinerator equipped with an afterburner and a flue gas scrubber

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	:
	DANGER LABEL TANKS	:
	DANGER LABEL PACKAGES	:
14.3	RID (transport by rail)	
	CLASS	: NOT SUBJECT
	PACKING	:
	DANGER LABEL TANKS	:
	DANGER LABEL PACKAGES	:
14.4	ADNR (transport by inland waterways)	
	CLASS	: NOT SUBJECT
	PACKING	:
	DANGER LABEL TANKS	:
	DANGER LABEL PACKAGES	:
14.5	IMDG (maritime transport)	
	CLASS	: NOT SUBJECT
	SUB RISKS	:
	PACKING	:
	MFAG	:
	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

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

Contains 2-butanone oxime. May produce an allergic reaction.

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

Exposure limits:

TLV : Threshold Limit Value - ACGIH US 2000
OES : Occupational Exposure Standards - United Kingdom 1999
MEL : Maximum Exposure Limits - United Kingdom 1999
MAK : Maximale Arbeitsplatzkonzentrationen - Germany 2001
TRK : Technische Richtkonzentrationen - Germany 2001
MAC : Maximale aanvaarde concentratie - the Netherlands 2002
VME : Valeurs limites de Moyenne d'Exposition - France 1999
VLE : Valeurs limites d'Exposition à court terme - France 1999
GWBB : Grenswaarde beroepsmatige blootstelling - Belgium 1998
GWK : Grenswaarde kortstondige blootstelling - Belgium 1998
EC : Indicative occupational exposure limit values - directive 2000/39/EC

Full text of any R-phrases referred to under heading 2:

R21 : Harmful in contact with skin
R36/38 : Irritating to eyes and skin
R38 : Irritant to the skin
R40 : Limited evidence of a carcinogenic effect
R41 : Risk of serious damage to eyes
R43 : May cause sensitization by skin contact
R48/22 : Harmful: danger of serious damage to health by prolonged exposure if swallowed
R53 : May cause long-term adverse effects in the aquatic environment