

**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.  
Everdongenlaan 18-20  
B-2300 Turnhout  
Tel. : +32 14 42 42 31  
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- 1.4 Telephone number for emergency:**  
+32 14 58 45 45  
Brandweerinformatiecentrum voor gevaarlijke stoffen (B.I.G.)  
Technische Schoolstraat 43 A, B-2440 Geel

**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 <sup>3</sup>

## 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 BOD<sub>5</sub> : N.D. % ThOD
- water : No data available
- soil : T ½: N.D. days

**12.4 Bioaccumulative potential:**

- log P<sub>ow</sub> : 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



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**SILIRUB MA**

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**Revision: 19/07/2005****Page 1 of 2****Technical Data:**

Base	Polysiloxane
Consistency	Paste
Curing System	Moisture Cure
Skin formation (20°C/65% R.H.)	Ca. 5 min.
Curing Rate (20°C/65% R.H.)	Ca. 2 mm/24h
Hardness (DIN 53505)	25 ± 5 Shore A
Specific Gravity (DIN 53479)	1,25 g/mL
Temperature Resistance	-60°C to +180°C
Elastical Recovery (ISO 7389)	> 80 %
Maximum allowed Distortion	25 %
Elasticity Modulus 100 % (DIN 53504)	0,40 N/mm <sup>2</sup>
Maximum Tension (DIN 53504)	1,40 N/mm <sup>2</sup>
Elongation at Break (DIN 53504)	600 %

**Product:**

Silirub MA is a high-quality neutral, elastical one-component joint sealant based on silicones.

**Characteristics:**

- Very easy application
- Permanent colour, UV-resistant
- Stays elastic after curing
- Very good adhesion on many materials
- Does not cause staining on porous surfaces such as marble, granite, blue stone, e.a.
- Contains fungicide for sanitary applications

**Applications:**

Sealing of joints and bonding of marble and other porous natural stones  
All glazing jobs  
Bonding and glueing of marble and other porous natural stones on many different substrates  
Cladding of facades of marble, granite and other natural stones

**Packaging:**

*Colour:* marbledgrey, travertine, white, clear, black, portland stone  
*Packaging:* cartridge 310mL, sausage 600 mL

**Shelf life:**

12 months in unopened packaging in a cool and dry storage place at temperatures between +5°C and +25°.

**Surfaces:**

*Type:* all usual surfaces

*State of Surface:* clean, dry, free of dust and grease

*Preparation:* prime porous surfaces with Primer 150 (consult Soudal Primer table) if they have been exposed to prolonged humidity, no primer required for non porous surfaces.

We recommend a preliminary compatibility test.

**Joint Size:**

*Minimum Width:* 5mm

*Maximum Width:* 30mm

*Minimum Depth:* 5mm

*Recommandation:* 2 x depth = width

**Application:**

*Method:* caulking gun

*Application temperature:* +5°C to +35°C

*Clean:* with white spirit immediately after use

*Finish:* with soapy water before skinning

*Repair:* with Silirub MA

Remark: The directives contained in this documentation are the result of our experiments and of our experience and have been submitted in good faith. Because of the diversity of the materials and substrates and the great number of possible applications which are out of our control, we cannot accept any responsibility for the results obtained. In every case it is recommended to carry out preliminary experiments.



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**Revision: 19/07/2005****Page 2 of 2****Health- and Safety Recommendation:**

Apply the usual industrial hygiene. Consult the label for more information.

**Technical Norms/Conforms with:**

- United Kingdom: BS 5889 Type A

**Remarks:**

- Chemically completely neutral (pH=7)

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