

# SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830



## SEAL & BOND FLEX-SIL RED 202ml presspack

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

**Product name** : SEAL & BOND FLEX-SIL RED 202ml presspack  
**Registration number REACH** : Not applicable (mixture)  
**Product type REACH** : Special container containing a substance/mixture  
: The information refers to the substance/mixture

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

##### 1.2.1 Relevant identified uses

Sealant

##### 1.2.2 Uses advised against

No uses advised against known

#### 1.3. Details of the supplier of the safety data sheet

##### Supplier of the safety data sheet

Novatio\*  
Industrielaan 5B  
B-2250 Olen  
☎ +32 14 25 76 40  
☎ +32 14 22 02 66  
info@novatio.be  
\*NOVATIO is a registered trademark of Novatech International N.V.

##### Manufacturer of the product

Novatech International N.V.  
Industrielaan 5B  
B-2250 Olen  
☎ +32 14 85 97 37  
☎ +32 14 85 97 38  
info@tec7.be

#### 1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch) :  
+32 14 58 45 45 (BIG)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Aerosol	category 3	H229: Pressurised container: May burst if heated.
Skin Corr.	category 1C	H314: Causes severe skin burns and eye damage.
Eye Dam.	category 1	H318: Causes serious eye damage.

#### 2.2. Label elements



Contains: methylsilanetriyl triacetate; diacetoxydi-tert-butoxysilane; dimethylbis[(1-oxoneodecyl)oxy]stannane.

**Signal word** Danger

##### H-statements

H229 Pressurised container: May burst if heated.  
H314 Causes severe skin burns and eye damage.

##### P-statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P251 Do not pierce or burn, even after use.  
P280 Wear protective gloves, protective clothing and eye protection/face protection.  
P260 Do not breathe vapours/mist.  
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122°F.

Created by: Brandweerinformatiecentrum voor gevaarlijke stoffen vzw (BIG)

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## Supplemental information

EUH208

Contains: dimethylbis[(1-oxoneodecyl)oxy]stannane. May produce an allergic reaction.

## 2.3. Other hazards

Contains component(s) that meet(s) the criteria of PBT and vPvB as listed in Annex XIII of Regulation (EC) No. 1907/2006

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark
silicon dioxide 01-2119379499-16	7631-86-9 231-545-4	10% ≤C<11.5%		(2)	Constituent
methylsilanetriyl triacetate 01-2119987097-22	4253-34-3 224-221-9	2.5%≤C≤3%	Acute Tox. 4; H302 Skin Corr. 1C; H314 Eye Dam. 1; H318	(1)	Constituent
diacetoxydi-tert-butoxysilane 01-2119987098-20	13170-23-5 236-112-3	1.5%≤C≤2%	Skin Corr. 1B; H314 Eye Dam. 1; H318	(1)(10)	Constituent
dodecamethylcyclohexasiloxane 01-2119517435-42	540-97-6 208-762-8	0.1% ≤C<0.2%		(3)(4)	Constituent
dimethylbis[(1-oxoneodecyl)oxy]stannane	68928-76-7 273-028-6	C<0.1%	Acute Tox. 3; H301 Skin Sens. 1A; H317 Skin Irrit. 2; H315 Aquatic Chronic 2; H411	(1)(10)	Constituent
octamethylcyclotetrasiloxane 01-2119529238-36	556-67-2 209-136-7	C≤0.1%	Flam. Liq. 3; H226 Repr. 2; H361f Aquatic Chronic 2; H411	(1)(3)(4)(10)	Constituent

(1) For H-statements in full: see heading 16

(2) Substance with a Community workplace exposure limit

(3) PBT- and/or vPvB-substance

(4) Enumerated in candidate list of substances of very high concern (SVHC) for authorisation (Article 59 of Regulation (EC) No. 1907/2006)

(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General:

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

#### After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

#### After skin contact:

Wash immediately with lots of water (15 minutes)/shower. Remove clothing while washing. Do not apply (chemical) neutralizing agents without medical advice. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital.

#### After eye contact:

Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply (chemical) neutralizing agents without medical advice. Take victim to an ophthalmologist.

#### After ingestion:

Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Do not apply (chemical) neutralizing agents without medical advice. Immediately consult a doctor/medical service.

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

#### 4.2.1 Acute symptoms

##### After inhalation:

No effects known.

##### After skin contact:

Caustic burns/corrosion of the skin.

##### After eye contact:

Corrosion of the eye tissue.

##### After ingestion:

Possible esophageal perforation. Burns to the gastric/intestinal mucosa.

#### 4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

### 5.2. Special hazards arising from the substance or mixture

On burning: release of harmful gases/vapours e.g.: carbon monoxide - carbon dioxide.

### 5.3. Advice for firefighters

#### 5.3.1 Instructions:

If exposed to fire cool the closed containers by spraying with water. Physical explosion risk: extinguish/cool from behind cover. Do not move the load if exposed to heat. After cooling: persistent risk of physical explosion.

#### 5.3.2 Special protective equipment for fire-fighters:

Gloves. Protective clothing. Face shield. Corrosion-proof suit. Heat/fire exposure: compressed air/oxygen apparatus.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

No naked flames.

#### 6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

#### 6.1.2 Protective equipment for emergency responders

Gloves. Protective clothing. Face shield. Corrosion-proof suit.

#### Suitable protective clothing

See heading 8.2

### 6.2. Environmental precautions

Contain released product.

### 6.3. Methods and material for containment and cleaning up

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

### 6.4. Reference to other sections

See heading 13.

## SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 7.1. Precautions for safe handling

Keep away from naked flames/heat. Observe very strict hygiene - avoid contact. Keep container tightly closed.

### 7.2. Conditions for safe storage, including any incompatibilities

#### 7.2.1 Safe storage requirements:

Storage temperature: < 50 °C. Keep container in a well-ventilated place. Fireproof storeroom. Keep out of direct sunlight. Meet the legal requirements. Max. storage time: 365 day(s).

#### 7.2.2 Keep away from:

Heat sources, (strong) acids, (strong) bases, reducing agents, oxidizing agents.

#### 7.2.3 Suitable packaging material:

No data available

#### 7.2.4 Non suitable packaging material:

No data available

### 7.3. Specific end use(s)

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 Occupational exposure

##### a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

#### Belgium

Etain (composés organiques de) (en Sn)	Time-weighted average exposure limit 8 h	0.1 mg/m <sup>3</sup>
	Short time value	0.2 mg/m <sup>3</sup>
Silices amorphes : silice fondue SiO <sub>2</sub> (poussières alvéolaires)	Time-weighted average exposure limit 8 h	0.1 mg/m <sup>3</sup>
Silices amorphes : terre de diatomées, non calcinées (fraction inhalable)	Time-weighted average exposure limit 8 h	10 mg/m <sup>3</sup>
Silices amorphes : fumées (fraction alvéolaire)	Time-weighted average exposure limit 8 h	2 mg/m <sup>3</sup>

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## France

Etain (Composés organiques d'), en Sn	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	0.1 mg/m <sup>3</sup>
	Short time value (VL: Valeur non réglementaire indicative)	0.2 mg/m <sup>3</sup>

## Germany

Kieselsäuren, amorphe	Time-weighted average exposure limit 8 h (TRGS 900)	4 mg/m <sup>3</sup>
Mono- und Dimethylzinnverbindungen	Time-weighted average exposure limit 8 h (TRGS 900)	0.0018 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	0.009 mg/m <sup>3</sup>

## UK

Silica, amorphous inhalable dust	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	6 mg/m <sup>3</sup>
Silica, amorphous respirable dust	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	2.4 mg/m <sup>3</sup>
Tin compounds, organic, except Cyhexatin (ISO), (as Sn)	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	0.1 mg/m <sup>3</sup>
	Short time value (Workplace exposure limit (EH40/2005))	0.2 mg/m <sup>3</sup>

## USA (TLV-ACGIH)

Tin organic compounds, as Sn	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	0.1 mg/m <sup>3</sup>
	Short time value (TLV - Adopted Value)	0.2 mg/m <sup>3</sup>

### b) National biological limit values

If limit values are applicable and available these will be listed below.

#### 8.1.2 Sampling methods

Product name	Test	Number
Octamethylcyclotetrasiloxane (Volatile Organic compounds)	NIOSH	2549
Silica, Amorphous (Respirable)	NIOSH	7501
Tin (Organic Cpd) (as Sn) (Organotin Compounds)	NIOSH	5504

#### 8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

#### 8.1.4 Threshold values

##### DNEL/DMEL - Workers

###### silicon dioxide

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	4 mg/m <sup>3</sup>	

###### methylsilanetriyl triacetate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	31 mg/m <sup>3</sup>	
	Acute local effects inhalation	31 mg/m <sup>3</sup>	

###### diacetoxydi-tert-butoxysilane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	150.84 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	21.39 mg/kg bw/day	

###### dodecamethylcyclohexasiloxane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	11 mg/m <sup>3</sup>	
	Long-term local effects inhalation	1.22 mg/m <sup>3</sup>	
	Acute local effects inhalation	6.1 mg/m <sup>3</sup>	

###### octamethylcyclotetrasiloxane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	73 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	73 mg/m <sup>3</sup>	
	Long-term local effects inhalation	73 mg/m <sup>3</sup>	
	Acute local effects inhalation	73 mg/m <sup>3</sup>	

##### DNEL/DMEL - General population

###### methylsilanetriyl triacetate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	5.1 mg/m <sup>3</sup>	
	Acute local effects inhalation	5.1 mg/m <sup>3</sup>	

###### diacetoxydi-tert-butoxysilane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	37.2 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	10.69 mg/kg bw/day	
	Long-term systemic effects oral	10.69 mg/kg bw/day	

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## dodecamethylcyclohexasiloxane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	2.7 mg/m <sup>3</sup>	
	Long-term local effects inhalation	0.3 mg/m <sup>3</sup>	
	Acute local effects inhalation	1.5 mg/m <sup>3</sup>	
	Long-term systemic effects oral	1.7 mg/kg bw/day	
	Acute systemic effects oral	1.7 mg/kg bw/day	

## octamethylcyclotetrasiloxane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	13 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	13 mg/m <sup>3</sup>	
	Long-term local effects inhalation	13 mg/m <sup>3</sup>	
	Acute local effects inhalation	13 mg/m <sup>3</sup>	
	Long-term systemic effects oral	3.7 mg/kg bw/day	
Acute systemic effects oral	3.7 mg/kg bw/day		

## PNEC

### methylsilanetriyl triacetate

Compartments	Value	Remark
Fresh water	1 mg/l	
Marine water	0.1 mg/l	
Fresh water (intermittent releases)	10 mg/l	
STP	6.9 mg/l	
Fresh water sediment	3.4 mg/kg sediment dw	
Marine water sediment	0.34 mg/kg sediment dw	
Soil	0.145 mg/kg soil dw	

### diacetoxydi-tert-butoxysilane

Compartments	Value	Remark
Fresh water	0.029 mg/l	
Marine water	0.003 mg/l	
STP	13.276 mg/l	
Fresh water sediment	0.033 mg/kg sediment dw	
Marine water sediment	0.003 mg/kg sediment dw	
Soil	0.02 mg/kg soil dw	

## dodecamethylcyclohexasiloxane

Compartments	Value	Remark
STP	1 mg/l	
Fresh water sediment	13 mg/kg sediment dw	
Marine water sediment	1.3 mg/kg sediment dw	
Soil	3.77 mg/kg soil dw	
Oral	66.7 mg/kg food	

## octamethylcyclotetrasiloxane

Compartments	Value	Remark
Fresh water	1.5 µg/l	
Marine water	0.15 µg/l	
STP	10 mg/l	
Fresh water sediment	3 mg/kg sediment dw	
Marine water sediment	0.3 mg/kg sediment dw	
Soil	0.54 mg/kg soil dw	
Oral	41 mg/kg food	

### 8.1.5 Control banding

If applicable and available it will be listed below.

## 8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

### 8.2.2 Individual protection measures, such as personal protective equipment

Observe very strict hygiene - avoid contact. Do not eat, drink or smoke during work.

#### a) Respiratory protection:

Respiratory protection not required in normal conditions.

#### b) Hand protection:

Protective gloves against chemicals (EN 374).

#### c) Eye protection:

Face shield.

#### d) Skin protection:

Protective clothing. Corrosion-proof clothing.

### 8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

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## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical form	Press-pack Paste
Odour	Irritating/pungent odour Vinegar odour
Odour threshold	No data available
Colour	Red
Particle size	No data available
Explosion limits	No data available
Flammability	Not classified as flammable
Log Kow	Not applicable (mixture)
Dynamic viscosity	No data available
Kinematic viscosity	No data available
Melting point	No data available
Boiling point	No data available
Evaporation rate	No data available
Relative vapour density	> 2
Vapour pressure	No data available
Solubility	Water ; insoluble
Relative density	No data available
Decomposition temperature	No data available
Auto-ignition temperature	> 400 °C
Flash point	> 150 °C
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	No data available

### 9.2. Other information

Absolute density	No data available
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

Unstable on exposure to heat.

### 10.3. Possibility of hazardous reactions

No data available.

### 10.4. Conditions to avoid

#### Precautionary measures

Keep away from naked flames/heat.

### 10.5. Incompatible materials

(strong) acids, (strong) bases, reducing agents, oxidizing agents.

### 10.6. Hazardous decomposition products

On burning: release of harmful gases/vapours e.g.: carbon monoxide - carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### 11.1.1 Test results

#### Acute toxicity

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No (test)data on the mixture available

Judgement is based on the relevant ingredients

silicon dioxide

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		> 10000 mg/kg		Rat		
Dermal	LD50		> 5000 mg/kg		Rabbit		

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## methylsilanetriyl triacetate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	1600 mg/kg bw	14 day(s)	Rat (male / female)	Experimental value	
Dermal						Data waiving	
Inhalation						Data waiving	

## diacetoxidi-tert-butoxysilane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	6650 mg/kg bw		Rat (male)	Experimental value	
Dermal						Data waiving	
Inhalation						Data waiving	

## dodecamethylcyclohexasiloxane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 423	> 2000 mg/kg bw		Rat (male / female)	Experimental value	
Dermal	LD50	OECD 402	> 2000 mg/kg bw		Rat (male / female)	Experimental value	
Inhalation						Data waiving	

## dimethylbis[(1-oxoneodecyl)oxy]stannane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	204.5 mg/kg bw		Rat (male / female)	Experimental value	

## octamethylcyclotetrasiloxane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	> 4800 mg/kg bw		Rat (male)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	> 2400 mg/kg bw		Rat (male / female)	Experimental value	
Inhalation (aerosol)	LC50	OECD 403	36 mg/l air	4 h	Rat (male / female)	Experimental value	

### **Conclusion**

Not classified for acute toxicity

### **Corrosion/irritation**

#### SEAL & BOND FLEX-SIL RED 202ml presspack

No (test)data on the mixture available

Classification is based on the relevant ingredients

#### methylsilanetriyl triacetate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage	Equivalent to OECD 405		24; 48; 72 hours	Rabbit	Experimental value	
Skin	Corrosive	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	

#### diacetoxidi-tert-butoxysilane

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage; category 1					Literature study	
Skin	Corrosive	Equivalent to OECD 404	3 minutes	24; 48; 72 hours	Rabbit	Experimental value	
Inhalation	Corrosive					Literature study	

#### dodecamethylcyclohexasiloxane

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405		24; 48; 72 hours	Rabbit	Experimental value	Single treatment with rinsing
Skin	Not irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	

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## dimethylbis[(1-oxoneodecyl)oxy]stannane

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Skin	Irritating	OECD 439	15 minutes		Reconstructed human epidermis	Experimental value	

## octamethylcyclotetrasiloxane

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	Equivalent to OECD 405		24; 48; 72 hours	Rabbit	Experimental value	Single treatment
Skin	Not irritating	Equivalent to OECD 404	24 h	72 hours	Rabbit	Experimental value	

### **Conclusion**

Causes severe skin burns and eye damage.

Not classified as irritating to the respiratory system

### **Respiratory or skin sensitisation**

#### SEAL & BOND FLEX-SIL RED 202ml presspack

No (test) data on the mixture available

Judgement is based on the relevant ingredients

#### diacetoxidi-tert-butoxysilane

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin						Data waiving	

#### dodecamethylcyclohexasiloxane

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Dermal	Not sensitizing	OECD 406	24 h	24; 48 hours	Guinea pig (female)		

#### dimethylbis[(1-oxoneodecyl)oxy]stannane

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing			24 hours	Guinea pig (male / female)	Experimental value	

#### octamethylcyclotetrasiloxane

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406		24; 48 hours	Guinea pig (female)	Experimental value	

### **Conclusion**

Not classified as sensitizing for skin

Not classified as sensitizing for inhalation

### **Specific target organ toxicity**

#### SEAL & BOND FLEX-SIL RED 202ml presspack

No (test) data on the mixture available

Judgement is based on the relevant ingredients

#### methylsilanetriyl triacetate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral	NOAEL	OECD 422	50 mg/kg bw/day		No effect	4 weeks (daily)	Rat (male / female)	Read-across
Inhalation	NOAEL	OECD 413	0.56 mg/l		No effect	13 weeks (6h / day, 5 days / week)	Rat (male / female)	Read-across
Inhalation	LOAEL	OECD 413	2.2 mg/l	Kidney	Affection of the renal tissue	13 weeks (6h / day, 5 days / week)	Rat (male / female)	Read-across

#### diacetoxidi-tert-butoxysilane

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (drinking water)	NOAEL	Subchronic toxicity test	60 mg/kg food		No effect	8 month(s)	Rat (male)	Experimental value
Oral (diet)	NOAEL	Subacute toxicity test	≥ 3600 mg/kg bw/day		No effect	4 weeks (daily)	Rat (male)	Experimental value

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## dodecamethylcyclohexasiloxane

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	OECD 422	1000 mg/kg bw/day		No effect		Rat (female)	Experimental value
Inhalation (vapours)	NOAEC	OECD 413	1 ppm		No effect	13 weeks (6h / day, 7 days / week)	Rat (male / female)	Experimental value

## octamethylcyclotetrasiloxane

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	Dose level	Subacute toxicity test	2.1 %		No effect	28 day(s)	Rat (male / female)	Inconclusive, insufficient data
Dermal	NOAEL	Equivalent to OECD 410	≥ 1 ml/kg bw		No effect	3 weeks (5 days / week)	Rabbit (male / female)	Experimental value
Inhalation (vapours)	NOAEC systemic effects	EPA TSCA consent order	150 ppm	Kidney	No effect	104 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value
Inhalation (vapours)	NOAEC local effects	EPA TSCA consent order	150 ppm	Respiratory tract	No effect	104 weeks (6h / day, 5 days / week)	Rat (male / female)	

### Conclusion

Not classified for subchronic toxicity

### Mutagenicity (in vitro)

#### SEAL & BOND FLEX-SIL RED 202ml presspack

No (test) data on the mixture available

Judgement is based on the relevant ingredients

#### methylsilanetriyl triacetate

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	OECD 473	Chinese hamster ovary (CHO)	No effect	Experimental value	

#### diacetoxidi-tert-butoxysilane

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Experimental value	
Negative with metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	

#### dodecamethylcyclohexasiloxane

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Experimental value	

#### octamethylcyclotetrasiloxane

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 473	Chinese hamster ovary (CHO)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	

### Conclusion

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# SEAL & BOND FLEX-SIL RED 202ml presspack

Not classified for mutagenic or genotoxic toxicity

## Mutagenicity (in vivo)

### SEAL & BOND FLEX-SIL RED 202ml presspack

No (test) data on the mixture available

Judgement is based on the relevant ingredients

#### diacetoxydi-tert-butoxysilane

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Other		Mouse (male)		

#### dodecamethylcyclohexasiloxane

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	OECD 474		Mouse (male / female)	Bone marrow	Experimental value

#### octamethylcyclotetrasiloxane

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Equivalent to OECD 475	5 days (6h / day)	Rat (male / female)		Experimental value

### Conclusion

Not classified for mutagenic or genotoxic toxicity

## Carcinogenicity

### SEAL & BOND FLEX-SIL RED 202ml presspack

No (test) data on the mixture available

Judgement is based on the relevant ingredients

#### octamethylcyclotetrasiloxane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation	NOAEC	Equivalent to OECD 453	150 ppm	104 weeks (6h / day, 5 days / week)	Rat (male / female)	No carcinogenic effect		Experimental value

### Conclusion

Not classified for carcinogenicity

## Reproductive toxicity

### SEAL & BOND FLEX-SIL RED 202ml presspack

No (test) data on the mixture available

Judgement is based on the relevant ingredients

#### methylsilanetriyl triacetate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	OECD 422	1000 mg/kg bw/day	51 day(s)	Rat	No effect		Read-across
Maternal toxicity	NOAEL	Other	1000 mg/kg bw/day	51 day(s)	Rat	No effect		Read-across
Effects on fertility	NOAEL	OECD 422	≥ 1000 mg/kg bw/day	51 day(s)	Rat (male / female)	No effect		Read-across

#### diacetoxydi-tert-butoxysilane

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL		≥ 1600 mg/kg bw/day	13 day(s)	Rabbit (female)	No effect		Experimental value
Maternal toxicity	NOAEL		≥ 1600 mg/kg bw/day	13 day(s)	Rabbit (female)	No effect		Experimental value
Effects on fertility	NOAEL		50 mg/kg bw/day		Rat (female)	No effect		Experimental value

#### dodecamethylcyclohexasiloxane

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	OECD 414	1000 mg/kg bw/day	15 days (gestation, daily)	Rat (female)	No effect		Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEL	OECD 414	1000 mg/kg bw/day	15 days (gestation, daily)	Rat (female)	No effect		Experimental value
Effects on fertility (Oral (stomach tube))	NOAEL	OECD 422	1000 mg/kg bw/day	28 day(s) - 46 day(s)	Rat (male / female)	No effect		Experimental value

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# SEAL & BOND FLEX-SIL RED 202ml presspack

## octamethylcyclotetrasiloxane

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation)	NOAEL	Equivalent to OECD 414	≥ 500 ppm	13 days (6h / day)	Rabbit	No effect		Experimental value
Maternal toxicity (Inhalation)	NOAEL	Equivalent to OECD 414	300 ppm	13 days (6h / day)	Rabbit	No effect		Experimental value
Effects on fertility (Inhalation)	NOAEC	EPA OPPTS 870.3800	300 ppm	≥ 70 days (6h / day)	Rat (male / female)	No effect	Reproductive organs	Experimental value
	Dose level (P)	EPA OPPTS 870.3800	500 ppm	≥ 70 days (6h / day)	Rat (male / female)	Decrease in prolificity		Experimental value

### Conclusion

Not classified for reprotoxic or developmental toxicity

### Toxicity other effects

#### SEAL & BOND FLEX-SIL RED 202ml presspack

No (test) data on the mixture available

### Chronic effects from short and long-term exposure

#### SEAL & BOND FLEX-SIL RED 202ml presspack

No effects known.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### SEAL & BOND FLEX-SIL RED 202ml presspack

No (test) data on the mixture available

Judgement of the mixture is based on the relevant ingredients

#### silicon dioxide

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		> 10000 mg/l	96 h	Brachydanio rerio			Literature
Acute toxicity crustacea	EC50		> 10000 mg/l	24 h	Daphnia magna			Literature
Toxicity algae and other aquatic plants	EC50		440 mg/l	72 h	Selenastrum capricornutum			Literature; Growth rate

#### methylsilanetriyl triacetate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	EU Method C.1	> 500 mg/l	96 h	Danio rerio	Semi-static system	Fresh water	Experimental value; Nominal concentration
Acute toxicity crustacea	EC50	EU Method C.2	> 500 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	EU Method C.3	> 500 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP

#### diacetyldi-tert-butoxysilane

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	79 mg/l - 88 mg/l	96 h	Pimephales promelas	Static system	Fresh water	Similar product
Acute toxicity crustacea	EC50	OECD 202	65 mg/l	48 h	Daphnia magna	Static system	Fresh water	Similar product
Toxicity algae and other aquatic plants	ErC50	OECD 201	24.41 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Similar product; GLP

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# SEAL & BOND FLEX-SIL RED 202ml presspack

## dodecamethylcyclohexasiloxane

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes								Not determined, exemption according to REACH
Acute toxicity crustacea								Not determined, exemption according to REACH
Toxicity algae and other aquatic plants	ErC50	OECD 201	> 2 µg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
	NOEC	OECD 201	≥ 2 µg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
Long-term toxicity fish	NOEC	OECD 210	≥ 14 µg/l	90 day(s)	Oncorhynchus mykiss	Flow-through system	Fresh water	Experimental value; GLP
Long-term toxicity aquatic crustacea	NOEC	OECD 211	≥ 4.6 µg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; GLP
Toxicity aquatic micro-organisms	EC50	OECD 209	> 100 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value; GLP

## dimethylbis(1-oxoneodecyl)oxystannane

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity crustacea	EC50	OECD 202	39 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	OECD 201	7.6 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP

## octamethylcyclotetrasiloxane

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	EPA OTS 797.1400	> 22 µg/l	96 h	Oncorhynchus mykiss	Flow-through system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EC50	EPA OTS 797.1300	> 15 µg/l	48 h	Daphnia magna	Flow-through system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EC50	EPA OTS 797.1050	> 22 µg/l	96 h	Pseudokirchneriella subcapitata		Fresh water	Experimental value; GLP
	EC10	EPA OTS 797.1050	≥ 22 µg/l	96 h	Pseudokirchneriella subcapitata		Fresh water	Experimental value; GLP
Long-term toxicity fish	NOEC	Other	≥ 4.4 µg/l	93 day(s)	Oncorhynchus mykiss	Flow-through system	Fresh water	Experimental value; GLP
Long-term toxicity aquatic crustacea	NOEC	EPA OTS 797.1330	≥ 15 µg/l	21 day(s)	Daphnia magna	Flow-through system	Fresh water	Experimental value; GLP

	Parameter	Method	Value	Duration	Species	Value determination
Toxicity other terrestrial organisms	NOEC	OECD 218	44 mg/kg sediment dw	28 day(s)	Chironomus riparius	Experimental value
	LOEC	OECD 218	131 mg/kg sediment dw	28 day(s)	Chironomus riparius	Experimental value

### Conclusion

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

### 12.2. Persistence and degradability

#### methylsilanetriyl triacetate

##### Biodegradation water

Method	Value	Duration	Value determination
EU Method C.4	74 %; GLP	21 day(s)	Read-across

##### Half-life water (t1/2 water)

Method	Value	Primary degradation/mineralisation	Value determination
OECD 111: Hydrolysis as a function of pH	< 12 seconds	Primary degradation	Experimental value

# SEAL & BOND FLEX-SIL RED 202ml presspack

diacetoxydi-tert-butoxysilane

## Biodegradation water

Method	Value	Duration	Value determination
OECD 301F: Manometric Respirometry Test	79.5 %; GLP	28 day(s)	Similar product

## Half-life water (t1/2 water)

Method	Value	Primary degradation/mineralisation	Value determination
OECD 111: Hydrolysis as a function of pH	< 37.5 seconds; GLP		Similar product

dodecamethylcyclohexasiloxane

## Biodegradation water

Method	Value	Duration	Value determination
OECD 310: Ready biodegradability - CO2 in sealed vessels	4.47 %; GLP	28 day(s)	Experimental value

## Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	9 day(s)		Calculated value

## Half-life water (t1/2 water)

Method	Value	Primary degradation/mineralisation	Value determination
	401 day(s); pH = 7	Primary degradation	Calculated value

## Half-life soil (t1/2 soil)

Method	Value	Primary degradation/mineralisation	Value determination
	1.38 day(s)	Primary degradation	Experimental value

dimethylbis[(1-oxoneodecyl)oxy]stannane

## Biodegradation water

Method	Value	Duration	Value determination
OECD 301B: CO2 Evolution Test	0 %; GLP	28 day(s)	Experimental value

octamethylcyclotetrasiloxane

## Biodegradation water

Method	Value	Duration	Value determination
OECD 310: Ready biodegradability - CO2 in sealed vessels	3.7 %; GLP	29 day(s)	Experimental value

## Conclusion

Contains non readily biodegradable component(s)

## 12.3. Bioaccumulative potential

SEAL & BOND FLEX-SIL RED 202ml presspack

### Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

silicon dioxide

### Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

methylsilanetriyl triacetate

### Log Kow

Method	Remark	Value	Temperature	Value determination
		-2.4	20 °C	QSAR

diacetoxydi-tert-butoxysilane

### Log Kow

Method	Remark	Value	Temperature	Value determination
KOWWIN		1.41		QSAR

dodecamethylcyclohexasiloxane

### BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	OECD 305	1160; GLP	49 day(s)	Pimephales promelas	Experimental value

### Log Kow

Method	Remark	Value	Temperature	Value determination
		8.87	23.6 °C	Experimental value

dimethylbis[(1-oxoneodecyl)oxy]stannane

### Log Kow

Method	Remark	Value	Temperature	Value determination
KOWWIN		5.503		QSAR

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octamethylcyclotetrasiloxane

## BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	EPA OTS 797.1520	14900 l/kg; GLP	28 day(s)	Pimephales promelas	Experimental value

## Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 123		6.488	25.1 °C	Experimental value

## Conclusion

Contains bioaccumulative component(s)

## 12.4. Mobility in soil

methylsilanetriyl triacetate

### (log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	1	QSAR

diacetoxydi-tert-butoxysilane

### (log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	1.69	Calculated value

dodecamethylcyclohexasiloxane

### (log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	5.9	QSAR

## Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Fugacity Model Level III	1.41 %		13.8 %	72.9 %	11.8 %	Calculated value

dimethylbis[(1-oxoneodecyl)oxy]stannane

### (log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	3.509 - 3.751	Calculated value

octamethylcyclotetrasiloxane

### (log) Koc

Parameter	Method	Value	Value determination
log Koc	OECD 106	4.22	Experimental value

## Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
12 atm m <sup>3</sup> /mol		21.7 °C		Experimental value

## Conclusion

Contains component(s) that adsorb(s) into the soil

Contains component(s) with potential for mobility in the soil

## 12.5. Results of PBT and vPvB assessment

Contains component(s) that meet(s) the criteria of PBT and vPvB as listed in Annex XIII of Regulation (EC) No. 1907/2006.

## 12.6. Other adverse effects

SEAL & BOND FLEX-SIL RED 202ml presspack

### Fluorinated greenhouse gases (Regulation (EU) No 517/2014)

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

### Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

### Groundwater

Groundwater pollutant

methylsilanetriyl triacetate

#### Groundwater

Groundwater pollutant

diacetoxydi-tert-butoxysilane

#### Groundwater

Groundwater pollutant

dimethylbis[(1-oxoneodecyl)oxy]stannane

#### Groundwater

Groundwater pollutant

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# SEAL & BOND FLEX-SIL RED 202ml presspack

## SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 13.1. Waste treatment methods

#### 13.1.1 Provisions relating to waste

##### European Union

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

08 04 09\* (wastes from MFSU of adhesives and sealants (including waterproofing products): waste adhesives and sealants containing organic solvents or other hazardous substances). Depending on branch of industry and production process, also other waste codes may be applicable.

#### 13.1.2 Disposal methods

Recycle/reuse. Allow waste to solidify. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into drains or the environment.

#### 13.1.3 Packaging/Container

##### European Union

Waste material code packaging (Directive 2008/98/EC).

15 01 10\* (packaging containing residues of or contaminated by dangerous substances).

## SECTION 14: Transport information

### Road (ADR)

#### 14.1. UN number

UN number	1950
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#### 14.2. UN proper shipping name

Proper shipping name	Aerosols
----------------------	----------

#### 14.3. Transport hazard class(es)

Hazard identification number	
Class	2
Classification code	5A

#### 14.4. Packing group

Packing group	
Labels	2.2

#### 14.5. Environmental hazards

Environmentally hazardous substance mark	no
--	----

#### 14.6. Special precautions for user

Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

### Rail (RID)

#### 14.1. UN number

UN number	1950
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#### 14.2. UN proper shipping name

Proper shipping name	Aerosols
----------------------	----------

#### 14.3. Transport hazard class(es)

Hazard identification number	20
Class	2
Classification code	5A

#### 14.4. Packing group

Packing group	
Labels	2.2

#### 14.5. Environmental hazards

Environmentally hazardous substance mark	no
--	----

#### 14.6. Special precautions for user

Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

### Inland waterways (ADN)

#### 14.1. UN number

# SEAL & BOND FLEX-SIL RED 202ml presspack

UN number	1950
14.2. UN proper shipping name	
Proper shipping name	Aerosols
14.3. Transport hazard class(es)	
Class	2
Classification code	5A
14.4. Packing group	
Packing group	
Labels	2.2
14.5. Environmental hazards	
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

## Sea (IMDG/IMSBC)

14.1. UN number	
UN number	1950
14.2. UN proper shipping name	
Proper shipping name	aerosols
14.3. Transport hazard class(es)	
Class	2.2
14.4. Packing group	
Packing group	
Labels	2.2
14.5. Environmental hazards	
Marine pollutant	-
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	190
Special provisions	277
Special provisions	327
Special provisions	344
Special provisions	381
Special provisions	63
Special provisions	959
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code	
Annex II of MARPOL 73/78	Not applicable

## Air (ICAO-TI/IATA-DGR)

14.1. UN number	
UN number	1950
14.2. UN proper shipping name	
Proper shipping name	Aerosols, non-flammable
14.3. Transport hazard class(es)	
Class	2.2
14.4. Packing group	
Packing group	
Labels	2.2
14.5. Environmental hazards	
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	A145
Special provisions	A167
Special provisions	A802
Special provisions	A98
Passenger and cargo transport	
Limited quantities: maximum net quantity per packaging	30 kg G



# SEAL & BOND FLEX-SIL RED 202ml presspack

## SECTION 15: Regulatory information

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

#### European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
< 0.2 %	

REACH Candidate list

Contains component(s) included in candidate list of substances of very high concern (SVHC) for authorisation (Article 59 of Regulation (EC) No 1907/2006)

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
<ul style="list-style-type: none"> <li>· diacetoxydi-tert-butoxysilane</li> <li>· dimethylbis[(1-oxoneodecyl)oxy]stannane</li> <li>· octamethylcyclotetrasiloxane</li> </ul>	<p>Liquid 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:</p> <p>(a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F;</p> <p>(b) 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;</p> <p>(c) hazard class 4.1;</p> <p>(d) hazard class 5.1.</p>	<ol style="list-style-type: none"> <li>1. Shall not be used in: <ul style="list-style-type: none"> <li>— ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,</li> <li>— tricks and jokes,</li> <li>— games for one or more participants, or any article intended to be used as such, even with ornamental aspects,</li> </ul> </li> <li>2. Articles not complying with paragraph 1 shall not be placed on the market.</li> <li>3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: <ul style="list-style-type: none"> <li>— can be used as fuel in decorative oil lamps for supply to the general public, and,</li> <li>— present an aspiration hazard and are labelled with H304,</li> </ul> </li> <li>4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).</li> <li>5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: <ol style="list-style-type: none"> <li>a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life-threatening lung damage";</li> <li>b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter may lead to life threatening lung damage";</li> <li>c) lamp oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.</li> </ol> </li> <li>6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled H304, intended for supply to the general public.</li> <li>7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.'</li> </ol>
<ul style="list-style-type: none"> <li>· dimethylbis[(1-oxoneodecyl)oxy]stannane</li> </ul>	<p>Organostannic compounds</p>	<ol style="list-style-type: none"> <li>1. Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is acting as biocide in free association paint.</li> <li>2. Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture acts as biocide to prevent the fouling by micro-organisms, plants or animals of: <ol style="list-style-type: none"> <li>(a) all craft irrespective of their length intended for use in marine, coastal, estuarine and inland waterways and lakes;</li> <li>(b) cages, floats, nets and any other appliances or equipment used for fish or shellfish farming;</li> <li>(c) any totally or partly submerged appliance or equipment.</li> </ol> </li> <li>3. Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is intended for use in the treatment of industrial waters.</li> <li>4. Tri-substituted organostannic compounds: <ol style="list-style-type: none"> <li>a) Tri-substituted organostannic compounds such as tributyltin (TBT) compounds and triphenyltin (TPT) compounds shall not be used after 1 July 2010 in articles where the concentration in the article, or part thereof, is greater than the equivalent of 0,1 % by weight of tin.</li> <li>b) Articles not complying with point (a) shall not be placed on the market after 1 July 2010, except for articles that were already in use in the Community before that date.</li> </ol> </li> <li>5. Dibutyltin (DBT) compounds: <ol style="list-style-type: none"> <li>a) Dibutyltin (DBT) compounds shall not be used after 1 January 2012 in mixtures and articles for supply to the general public where the concentration in the mixture or the article, or part thereof, is greater than the equivalent of 0,1 % by weight of tin.</li> <li>b) Articles and mixtures not complying with point (a) shall not be placed on the market after 1 January 2012, except for articles that were already in use in the Community before that date.</li> </ol> </li> </ol>

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		<p>c) By way of derogation, points (a) and (b) shall not apply until 1 January 2015 to the following articles and mixtures for supply to the general public:</p> <ul style="list-style-type: none"> <li>— one-component and two-component room temperature vulcanisation sealants (RTV-1 and RTV-2 sealants) and adhesives,</li> <li>— paints and coatings containing DBT compounds as catalysts when applied on articles,</li> <li>— soft polyvinyl chloride (PVC) profiles whether by themselves or coextruded with hard PVC,</li> <li>— fabrics coated with PVC containing DBT compounds as stabilisers when intended for outdoor applications,</li> <li>— outdoor rainwater pipes, gutters and fittings, as well as covering material for roofing and façades,</li> </ul> <p>d) By way of derogation, points (a) and (b) shall not apply to materials and articles regulated under Regulation (EC) No 1935/2004.</p> <p>6. Dioctyltin (DOT) compound:</p> <p>(a) Dioctyltin (DOT) compounds shall not be used after 1 January 2012 in the following articles for supply to, or use by, the general public, where the concentration in the article, or part thereof, is greater than the equivalent of 0,1 % by weight of tin:</p> <ul style="list-style-type: none"> <li>— textile articles intended to come into contact with the skin,</li> <li>— gloves,</li> <li>— footwear or part of footwear intended to come into contact with the skin,</li> <li>— wall and floor coverings,</li> <li>— childcare articles,</li> <li>— female hygiene products,</li> <li>— nappies,</li> <li>— two-component room temperature vulcanisation moulding kits (RTV-2 moulding kits).</li> </ul> <p>(b) Articles not complying with point (a) shall not be placed on the market after 1 January 2012, except for articles that were already in use in the Community before that date.</p>
· octamethylcyclotetrasiloxane	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to that Regulation or not.	<p>1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:</p> <ul style="list-style-type: none"> <li>— metallic glitter intended mainly for decoration,</li> <li>— artificial snow and frost,</li> <li>— “whoopee” cushions,</li> <li>— silly string aerosols,</li> <li>— imitation excrement,</li> <li>— horns for parties,</li> <li>— decorative flakes and foams,</li> <li>— artificial cobwebs,</li> <li>— stink bombs.</li> </ul> <p>2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:</p> <p>“For professional users only”.</p> <p>3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/ 324/EEC.</p> <p>4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.</p>
· octamethylcyclotetrasiloxane	Octamethylcyclotetrasiloxane (D4)	<p>1. Shall not be placed on the market in wash-off cosmetic products in a concentration equal to or greater than 0,1 % by weight of either substance, after 31 January 2020.</p> <p>2. For the purposes of this entry, “wash-off cosmetic products” means cosmetic products as defined in Article 2(1)(a) of Regulation (EC) No 1223/2009 that, under normal conditions of use, are washed off with water after application.’</p>

## National legislation Belgium

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No data available

#### dimethylbis[(1-oxoneodecyl)oxy]stannane

Résorption peau	Etain (composés organiques de) (en Sn); D; La mention “D” signifie que la résorption de l’agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l’exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l’agent dans l’air.
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## National legislation The Netherlands

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Waterbezwaarlijkheid	Z (1); Algemene Beoordelingsmethodiek (ABM)
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#### octamethylcyclotetrasiloxane

SZW - Lijst van voor de voortplanting giftige stoffen (vruchtbaarheid)	octamethylcyclotetrasiloxaan; 2; Suspected of damaging fertility.
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## National legislation France

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No data available

## National legislation Germany

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WGK	1; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017
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#### silicon dioxide

TA-Luft	5.2.1
TRGS900 - Risiko der Fruchtschädigung	Kieselsäuren, amorphe; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden

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## methylsilanetriyl triacetate

TA-Luft	5.2.5/I
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## diacetoxydi-tert-butoxysilane

TA-Luft	5.2.5/I
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## dodecamethylcyclohexasiloxane

TA-Luft	5.2.5/I
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## dimethylbis[(1-oxoneodecyl)oxy]stannane

TA-Luft	5.2.2/III
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TRGS900 - Risiko der Fruchtschädigung	Mono- und Dimethylzinnverbindungen; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden
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## octamethylcyclotetrasiloxane

TA-Luft	5.2.5/I
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### **National legislation United Kingdom**

#### SEAL & BOND FLEX-SIL RED 202ml presspack

No data available

#### dimethylbis[(1-oxoneodecyl)oxy]stannane

Skin absorption	Tin compounds, organic, except Cyhexatin (ISO), (as Sn); Sk
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### **Other relevant data**

#### SEAL & BOND FLEX-SIL RED 202ml presspack

No data available

#### silicon dioxide

IARC - classification	3; Silica
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#### dimethylbis[(1-oxoneodecyl)oxy]stannane

Skin absorption	Tin organic compounds, as Sn; Skin; Danger of cutaneous absorption
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TLV - Carcinogen	Tin organic compounds, as Sn; A4
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## 15.2. Chemical safety assessment

No chemical safety assessment is required.

## SECTION 16: Other information

### Full text of any H-statements referred to under heading 3:

- H226 Flammable liquid and vapour.
- H229 Pressurised container: May burst if heated.
- H301 Toxic if swallowed.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H361f Suspected of damaging fertility.
- H411 Toxic to aquatic life with long lasting effects.

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
CLP (EU-GHS)	Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EC50	Effect Concentration 50 %
ErC50	EC50 in terms of reduction of growth rate
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative & Toxic
PNEC	Predicted No Effect Concentration
STP	Sludge Treatment Process
vPvB	very Persistent & very Bioaccumulative

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