

**BELLINZONI S.R.L.****Polyurethane sealant FLEXSEAL H-1**Revision nr.3  
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Replaced revision:2 (Dated 22/02/2017)

EN

## Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

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

#### 1.1. Product identifier

Code: 210MFXS  
Product name: Polyurethane sealant FLEXSEAL H-1

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

Intended use: Polyurethane sealant

Identified Uses	Industrial	Professional	Consumer
Formulations of adhesives and sealants, industrial	SU: 10. ERC: 2. PROC: 3, 4, 5, 8a, 8b, 9. PC: 1.	-	-
Industrial uses of adhesives and sealants	SU: 17, 19. ERC: 5, 8b. PROC: 10, 8a, 8b. PC: 1.	SU: 17, 19. ERC: 5, 8b. PROC: 10, 8a, 8b. PC: 1.	-
Use as a laboratory, industrial chemical	PROC: 15. PC: 1, 21.	-	-

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

Name: BELLINZONI S.R.L.  
Full address: Via Don Gnocchi, 4  
District and Country: 20016 PERO (MI) Italia  
Tel.: +39 02-33912133  
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e-mail address of the competent person responsible for the Safety Data Sheet: laboratorio@bellinzoni.com

#### 1.4. Emergency telephone number

For urgent inquiries refer to:  
E.U.: Centro Antiveleni - Ospedale di Niguarda - Milano - Tel. +39 0266101029  
U.S.A.: Chemtech +1.800.424.9300  
International: +1.703.527.3887

### SECTION 2. Hazards identification

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

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Eye irritation, category 2	H319	Causes serious eye irritation.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.

**SECTION 2. Hazards identification ... / >>****2.2. Label elements**

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words: Warning

Hazard statements:

**H319** Causes serious eye irritation.  
**H317** May cause an allergic skin reaction.

Precautionary statements:

**P280** Wear protective gloves / eye protection / face protection.  
**P333+P313** If skin irritation or rash occurs: Get medical advice / attention.  
**P264** Wash . . . thoroughly after handling.  
**P302+P352** IF ON SKIN: wash with plenty of water / . . .

**Contains:** N- [3- (trimethoxysilyl) propyl] ethylenediamine

**2.3. Other hazards**

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

**SECTION 3. Composition/information on ingredients****3.2. Mixtures**

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
<b>N- [3- (trimethoxysilyl) propyl] ethylenediamine</b>		
CAS	1760-24-3	<b>Acute Tox. 4 H332, STOT RE 2 H373, Eye Dam. 1 H318, Skin Sens. 1 H317</b>
EC	217-164-6	
INDEX		
Reg. no.	01-2119970215-39-XXXX	
<b>BIS (2,2,6,6-tetramethyl-4-piperidyl) SEBACATE</b>		
CAS	52829-07-9	<b>Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1, Aquatic Chronic 2 H411</b>
EC	258-207-9	
INDEX		
Reg. no.	01-2119537297-32-XXXX	

The full wording of hazard (H) phrases is given in section 16 of the sheet.

**SECTION 4. First aid measures****4.1. Description of first aid measures**

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

**SECTION 4. First aid measures ... / >>****4.3. Indication of any immediate medical attention and special treatment needed**

Information not available

**SECTION 5. Firefighting measures****5.1. Extinguishing media****SUITABLE EXTINGUISHING EQUIPMENT**

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

**UNSUITABLE EXTINGUISHING EQUIPMENT**

None in particular.

**5.2. Special hazards arising from the substance or mixture****HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE**

Do not breathe combustion products.

**5.3. Advice for firefighters****GENERAL INFORMATION**

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS**

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

**SECTION 6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

**6.2. Environmental precautions**

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

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

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

**6.4. Reference to other sections**

Any information on personal protection and disposal is given in sections 8 and 13.

**SECTION 7. Handling and storage****7.1. Precautions for safe handling**

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

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

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

**7.3. Specific end use(s)**

Information not available

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

#### N- [3- (trimethoxysilyl) propyl] ethylenediamine

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	0,062	mg/l
Normal value in marine water	0,0062	mg/l
Normal value for fresh water sediment	0,22	mg/kg
Normal value for marine water sediment	0,022	mg/kg
Normal value for water, intermittent release	0,62	mg/l
Normal value of STP microorganisms	25	mg/l
Normal value for the terrestrial compartment	0,0085	mg/kg

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers		Effects on workers					
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation	NPI		NPI	8,7 mg/m3	NPI		NPI	35,3 mg/m3
Skin		17 mg/kg bw/d		2,5 mg/kg bw/d		5 mg/kg bw/d		5 mg/kg bw/d

#### BIS (2,2,6,6-tetramethyl-4-piperidyl) SEBACATE

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	0,005	mg/l
Normal value in marine water	0,0005	mg/l
Normal value for fresh water sediment	8,02	mg/kg
Normal value for marine water sediment	0,802	mg/kg
Normal value of STP microorganisms	1	mg/l
Normal value for the terrestrial compartment	1,6	mg/kg

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers		Effects on workers					
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		1 mg/kg		1 mg/kg				
Inhalation		1,4 mg/m3		1,4 mg/m3		5,6 mg/m3		5,6 mg/m3
Skin		1 mg/kg		1 mg/kg		2 mg/kg		2 mg/kg

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

### 8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

#### HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

#### SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

#### EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

#### RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the

**SECTION 8. Exposure controls/personal protection ... / >>**

threshold values considered. The protection provided by masks is in any case limited. If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

**ENVIRONMENTAL EXPOSURE CONTROLS**

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

**SECTION 9. Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Appearance	paste
Colour	as showed in color folder
Odour	characteristic
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
Flash point	> 250 °C
Evaporation Rate	Not available
Flammability of solids and gases	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,53
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	> 250 °C
Decomposition temperature	Not available
Viscosity	30000 - 55000 cps
Explosive properties	Not available
Oxidising properties	Not available

**9.2. Other information**

VOC (Directive 2010/75/EC) :	0
VOC (volatile carbon) :	0

**SECTION 10. Stability and reactivity****10.1. Reactivity**

There are no particular risks of reaction with other substances in normal conditions of use.

**10.2. Chemical stability**

The product is stable in normal conditions of use and storage.

**10.3. Possibility of hazardous reactions**

No hazardous reactions are foreseeable in normal conditions of use and storage.

**10.4. Conditions to avoid**

None in particular. However the usual precautions used for chemical products should be respected.

**10.5. Incompatible materials**

Information not available

### SECTION 10. Stability and reactivity ... / >>

#### 10.6. Hazardous decomposition products

Information not available

### SECTION 11. Toxicological information

#### 11.1. Information on toxicological effects

##### Metabolism, toxicokinetics, mechanism of action and other information

Information not available

##### Information on likely routes of exposure

Information not available

##### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

##### Interactive effects

Information not available

##### ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	Not classified (no significant component)
LD50 (Dermal) of the mixture:	Not classified (no significant component)

##### BIS (2,2,6,6-tetramethyl-4-piperidyl) SEBACATE

LD50 (Oral)	3700 mg/kg Rattus sp.
LD50 (Dermal)	> 3170 mg/kg Rattus sp.
LC50 (Inhalation)	0,5 mg/l Rattus sp.

##### N- [3- (trimethoxysilyl) propyl] ethylenediamine

LD50 (Oral)	2295 mg/kg Rattus sp.
LD50 (Dermal)	> 2000 mg/kg Oryctolagus sp.
LC50 (Inhalation)	1,49 mg/l/4h Rattus sp.

##### SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

##### SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

##### RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

##### GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

##### CARCINOGENICITY

Does not meet the classification criteria for this hazard class

##### REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

##### STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

**SECTION 11. Toxicological information ... / >>****STOT - REPEATED EXPOSURE**

Does not meet the classification criteria for this hazard class

**ASPIRATION HAZARD**

Does not meet the classification criteria for this hazard class

**SECTION 12. Ecological information****12.1. Toxicity**

BIS (2,2,6,6-tetramethyl-4-piperidyl) SEBACATE

LC50 - for Fish

4,4 mg/l/96h Brachydanio rerio

EC50 - for Crustacea

0,57 mg/l/48h Daphnia sp.

EC50 - for Algae / Aquatic Plants

1,9 mg/l/72h Scenedesmus subspicatus

N- [3- (trimethoxysilyl) propyl] ethylenediamine

LC50 - for Fish

344 mg/l/96h Brachydanio rerio

EC50 - for Crustacea

81 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants

126 mg/l/72h Scenedesmus subspicatus

**12.2. Persistence and degradability**

BIS (2,2,6,6-tetramethyl-4-piperidyl) SEBACATE

NOT rapidly degradable

N- [3- (trimethoxysilyl) propyl] ethylenediamine

NOT rapidly degradable

**12.3. Bioaccumulative potential**

Information not available

**12.4. Mobility in soil**

Information not available

**12.5. Results of PBT and vPvB assessment**

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

**12.6. Other adverse effects**

Information not available

**SECTION 13. Disposal considerations****13.1. Waste treatment methods**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

**SECTION 14. Transport information**

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

**14.1. UN number**

Not applicable

**SECTION 14. Transport information** ... / >>**14.2. UN proper shipping name**

Not applicable

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

Not applicable

**14.4. Packing group**

Not applicable

**14.5. Environmental hazards**

Not applicable

**14.6. Special precautions for user**

Not applicable

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

Information not relevant

**SECTION 15. Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**Seveso Category - Directive 2012/18/EC: NoneRestrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006Product  
Point 3Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

**15.2. Chemical safety assessment**

No chemical safety assessment has been processed for the mixture and the substances it contains.

**SECTION 16. Other information**

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>STOT RE 2</b>	Specific target organ toxicity - repeated exposure, category 2
<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>Eye Irrit. 2</b>	Eye irritation, category 2
<b>Skin Sens. 1</b>	Skin sensitization, category 1
<b>Aquatic Acute 1</b>	Hazardous to the aquatic environment, acute toxicity, category 1
<b>Aquatic Chronic 2</b>	Hazardous to the aquatic environment, chronic toxicity, category 2



**SECTION 16. Other information ... / >>**

<b>H332</b>	Harmful if inhaled.
<b>H373</b>	May cause damage to organs through prolonged or repeated exposure.
<b>H318</b>	Causes serious eye damage.
<b>H319</b>	Causes serious eye irritation.
<b>H317</b>	May cause an allergic skin reaction.
<b>H400</b>	Very toxic to aquatic life.
<b>H411</b>	Toxic to aquatic life with long lasting effects.

## Use descriptor system:

<b>ERC</b>	2	Formulation of preparations
<b>ERC</b>	5	Industrial use resulting in inclusion into or onto a matrix
<b>ERC</b>	8b	Wide dispersive indoor use of reactive substances in open systems
<b>PC</b>	1	Adhesives, sealants
<b>PC</b>	21	Laboratory chemicals
<b>PROC</b>	10	Roller application or brushing
<b>PROC</b>	15	Use as laboratory reagent
<b>PROC</b>	3	Use in closed batch process (synthesis or formulation)
<b>PROC</b>	4	Use in batch and other process (synthesis) where opportunity for exposure arises
<b>PROC</b>	5	Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
<b>PROC</b>	8a	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities
<b>PROC</b>	8b	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
<b>PROC</b>	9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
<b>SU</b>	10	Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
<b>SU</b>	17	General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment
<b>SU</b>	19	Building and construction work

## LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

## GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament

**SECTION 16. Other information ... / >>**

9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament  
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament  
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament  
12. Regulation (EU) 2016/1179 (IX Atp. CLP)  
13. Regulation (EU) 2017/776 (X Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

**Note for users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

**Changes to previous review:**

The following sections were modified:

01 / 02 / 03 / 04 / 07 / 08 / 09 / 11 / 12 / 13 / 15 / 16.