

SAFETY DATA SHEET**Flex sealant**

The safety data sheet is in accordance with Commission Regulation (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

Date issued	26.11.2019
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Revision date	20.11.2024
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1.1. Product identifier

Product name	Flex sealant
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Synonyms	FireStop Sealant 3000
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Article no.	100721, 100722, 100723
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1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance / mixture	Sealant
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1.3. Details of the supplier of the safety data sheet**Downstream user**

Company name	Fireseal AB
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Postal address	Esbogatan 14
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Postcode	SE-164 74
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City	Kista
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Country	Sweden
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Email	info@fireseal.se, andreas.bengtsson@fireseal.se
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1.4. Emergency telephone number

Emergency telephone	Telephone number: 112 Description: SOS.
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SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

Substance / mixture hazardous properties	Not regarded as a health or environmental hazard under current legislation.
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2.2. Label elements

Hazard statements	EUH 210 Safety data sheet available on request. EUH 212 Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.
Precautionary statements	P271 Use only outdoors or in a well-ventilated area.

2.3. Other hazards

PBT / vPvB	This mixture/product does not contain any substances considered to meet the criteria for classification as PBT and/or vPvB substances.
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SECTION 3: Composition / information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents	Notes
Titanium dioxide; [in powder form containing 1% or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]	CAS No.: 13463-67-7 EC No.: 236-675-5 Index No.: 022-006-00-2 REACH Reg. No.: 01-2119489379-17	Carc. 2; H351 CLP classification, notes: V, W, 10	1,2 \leq 3,9	
Diisopropoxy-bis(etylacetoacetato) titanium	CAS No.: 27858-32-8 EC No.: 248-697-2	Flam. Liq. 3; H226 Eye Irrit. 2; H319 STOT SE 3; H336	0,4 - 1,1 %	
Remarks, substance	The classification as carcinogenic by inhalation applies only to mixtures in powder form containing at least 1% titanium dioxide particles, which are in the form of or incorporated into particles with an aerodynamic diameter of $\leq 10 \mu\text{m}$. Due to the physical state of the material, the classification as carcinogenic shall not apply to this product.			
Substance comments	The full text for all hazard statements is displayed in section 16.			

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. If skin irritation or rash occurs: Get medical advice/ attention.
Eye contact	Rinse cautiously with water for several minutes. Make sure to remove any contact lenses from the eyes before rinsing. Get medical advice/attention if you feel unwell.
Ingestion	Rinse mouth with water. Never give liquid to an unconscious person. Do not induce vomiting. Get medical attention if any discomfort continues.

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

Delayed symptoms and effects	Prolonged or repeated exposure to this chemical may cause: May cause eczema-like skin disorders (dermatitis).
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4.3. Indication of any immediate medical attention and special treatment needed

Medical treatment	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
Improper extinguishing media	None known.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	During fire, gases hazardous to health may be formed.
Hazardous combustion products	Harmful fumes. Carbon monoxide (CO). Carbon dioxide (CO ₂). Metal oxides. Silicon dioxide

5.3. Advice for firefighters

Fire fighting procedures	Containers close to fire should be removed or cooled with water. Self contained breathing apparatus and full protective clothing must be worn in case of fire. Dike and collect extinguishing water.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal protection measures	Wear necessary protective equipment. For personal protection, see section 8.
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6.2. Environmental precautions

Environmental precautionary measures	Do not discharge into drains, water courses or onto the ground. Prevent further spillage if it can be done without risk. Contact local authorities in case of spillage to drain/aquatic environment.
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6.3. Methods and material for containment and cleaning up

Containment	Store in a closed container.
Clean up	Collect with absorbent, non-combustible material into suitable containers. Sweep up and place into an appropriate container.

6.4. Reference to other sections

Other instructions	See section 7, 8 and 13.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	Observe good chemical hygiene practices. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Wash hands and contaminated areas with water and soap after finished work. Immediately change contaminated clothes. Avoid eating, drinking and smoking when using
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the product. Avoid handling which leads to dust formation.

7.2. Conditions for safe storage, including any incompatibilities

Storage	Keep container tightly closed.
Conditions to avoid	Technical measures for safe storage: Avoid contact with oxidising agents.

Conditions for safe storage

Requirements for storage rooms and vessels	Clearly labeled container
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7.3. Specific end use(s)

Specific use(s)	The identified uses for this product are detailed in Section 1.2.
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SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Substance	Identification	Exposure limits	TWA Year
Titanium dioxide; [in powder form containing 1% or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]	CAS No.: 13463-67-7		
Control parameters comments	<p>Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with the Occupational Exposure Limits and the adequacy of exposure controls. For some substances biological monitoring may also be appropriate.</p> <p>Validated exposure measurement methods should be applied by a competent person and samples should be analysed by an accredited laboratory.</p> <p>Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy); European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents); European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances will also be required.</p>		

DNEL / PNEC

DNEL	Group: Professional Route of exposure: Long-term inhalation (local) Value: 0,170 mg/m ³ Comments: CAS: 13463-67-7
	Group: Consumer Route of exposure: Long-term inhalation (local) Value: 0,028 mg/m ³ Comments: CAS: 13463-67-7

PNEC	Group: Professional
	Route of exposure: Long-term inhalation (systemic)
	Value: 500 mg/m ³
	Comments: CAS: 27858-32-8
	Route of exposure: Saltwater
	Value: 0,01 mg/l
	Comments: CAS: 27858-32-8
Route of exposure: Water	
Value: 1,0 mg/l	
Comments: CAS: 27858-32-8	
Route of exposure: Freshwater sediments	
Value: 0,0816 mg/kg dw	
Comments: CAS: 27858-32-8	
Route of exposure: Saltwater sediments	
Value: 0,0082 mg/kg dw	
Comments: CAS: 27858-32-8	
Route of exposure: Soil	
Value: 0,019 mg/kg dw	
Comments: CAS: 27858-32-8	
Route of exposure: Freshwater	
Value: 0,1 mg/l	
Comments: CAS: 27858-32-8	

8.2. Exposure controls

Safety signs



Precautionary measures to prevent exposure

Appropriate engineering controls	Well-ventilated area. Use engineering controls to reduce air contamination to permissible exposure level.
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Eye / face protection

Suitable eye protection	Wear tight-fitting goggles or face shield. (EN 166)
Eye protection, comments	Wear approved, tight fitting safety glasses where splashing is probable.

Hand protection

Skin- / hand protection, short term contact	For prolonged or repeated skin contact use suitable protective gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.
Suitable gloves type	(EN374)
Suitable materials	Butyl rubber. Neoprene. Nitrile. Polyethylene/Ethylene Vinyl Alcohol (PE/EVAL).

Thickness of glove material	Polyvinyl chloride (PVC). Viton rubber (fluor rubber). Value: $\geq 0,35$ mm
Additional hand protection measures	Wash hands after contact.

Skin protection

Additional skin protection measures	Wear suitable protective clothing as protection against splashing or contamination.
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Respiratory protection

Respiratory protection necessary at	Under normal conditions of use respiration protection should not be required. In case of inadequate ventilation wear respiratory protection.
Recommended type of equipment	Use respiratory equipment with gas filter, type AX.

Appropriate environmental exposure control

Environmental exposure controls	Avoid release to the environment.
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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Paste.
Colour	White / off-white.
Odour	Odour of alcohol.
Odour limit	Comments: Data lacking.
pH	Comments: Data lacking.
Melting point / melting range	Comments: Data lacking.
Boiling point / boiling range	Comments: Data lacking.
Flash point	Value: > 100 °C
Evaporation rate	Comments: Data lacking.
Flammability	This product is not flammable.
Explosion limit	Comments: Data lacking.
Vapour pressure	Comments: Data lacking.
Vapour density	Comments: Data lacking.
Relative density	Value: 1,45
Solubility	Comments: Insoluble in water.
Partition coefficient: n-octanol/ water	Comments: Data lacking.
Auto-ignition temperature	Comments: Data lacking.
Decomposition temperature	Comments: Data lacking.
Viscosity	Comments: Data lacking.

9.2. Other information

Other physical and chemical properties

Physical and chemical properties	No information.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable under normal temperature conditions and recommended use.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Reacts violently with strong oxidising substances.
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10.4. Conditions to avoid

Conditions to avoid	None known.
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10.5. Incompatible materials

Materials to avoid	Avoid contact with oxidising agents.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Toxic gases may form when heated. Formaldehyde. Benzene. Rubbing alcohol.
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SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity	Effect tested: LD50
	Route of exposure: Oral
	Value: > 5000 mg/kg
	Comments: Flex sealant
	Effect tested: LC50
	Route of exposure: Inhalation.
	Duration: 4 hour(s)
	Value: > 6,82
	Species: Rat
Comments: CAS No.: 13463-67-7	
Effect tested: LC50	
Route of exposure: Inhalation.	
Duration: 4 hour(s)	
Value: > 198,65	
Species: Rat	
Comments: 27858-32-8	

Route of exposure: Dermal
 Value: > 2000 mg/kg
 Comments: Flex sealant

Other information regarding health hazards

Assessment of acute toxicity, classification	No specific health warnings noted.
Assessment of skin corrosion / irritation, classification	No specific health warnings noted.
Assessment of eye damage or irritation, classification	No specific health warnings noted.
Assessment of respiratory sensitisation, classification	No specific health warnings noted.
Assessment of skin sensitisation, classification	No specific health warnings noted.
Assessment of germ cell mutagenicity, classification	No specific health warnings noted.
Assessment of carcinogenicity, classification	No specific health warnings noted.
Assessment of reproductive toxicity, classification	No specific health warnings noted.
Assessment of specific target organ toxicity - single exposure, classification	No specific health warnings noted.
Assessment of specific target organ toxicity - repeated exposure, classification	No specific health warnings noted.
Assessment of aspiration hazard, classification	No specific health warnings noted.

Symptoms of exposure

In case of ingestion	No specific symptoms noted.
In case of skin contact	May cause sensitization in sensitive people.
In case of inhalation	Vapours may cause drowsiness and dizziness.
In case of eye contact	May cause temporary eye irritation.

11.2 Other information

Endocrine disruption	This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.
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SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity, fish	Toxicity type: Acute Value: > 1000 mg/l
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	Effect dose concentration: NOEC Exposure time: 48 hour(s) Species: <i>Leuciscus idus</i> Comments: CAS: 13463-67-7
	Toxicity type: Acute Value: 4200 mg/l Effect dose concentration: LC50 Exposure time: 96 hour(s) Species: <i>Rasbora heteromorpha</i> Comments: CAS: 27858-32-8
Aquatic toxicity, algae	Toxicity type: Acute Value: > 100 mg/l Effect dose concentration: EC50 Exposure time: 72 hour(s) Species: <i>Pseudokirchneriella subcapitata</i> Comments: CAS: 13463-67-7
	Toxicity type: Acute Value: > 100 mg/l Effect dose concentration: ERC50 Exposure time: 72 hour(s) Species: <i>Pseudokirchneriella subcapitata</i> Comments: CAS: 27858-32-8
	Toxicity type: Acute Value: 100 mg/l Effect dose concentration: NOEC Exposure time: 72 hour(s) Species: <i>Pseudokirchneriella subcapitata</i> Comments: CAS: 27858-32-8
Aquatic toxicity, crustacean	Toxicity type: Acute Value: > 1000 mg/l Effect dose concentration: EC50 Exposure time: 48 hour(s) Species: <i>Daphnia magna</i> Comments: CAS: 13463-67-7
	Toxicity type: Acute Value: > 100 mg/l Effect dose concentration: LC50 Exposure time: 48 hour(s) Species: <i>Daphnia magna</i> Comments: CAS: 27858-32-8
Toxicity to bacteria	Value: > 1000 mg/l Effect dose concentration: EC50 Exposure time: 3 hour(s) Comments: CAS: 13463-67-7
Ecotoxicity	Not classified as dangerous to the environment.

12.2. Persistence and degradability

Persistence and degradability description/evaluation	Not entered.
Biodegradability	Value: 66 % Method: OECD 301D Comments: CAS: 27858-32-8 Test period: 28 day(s)

12.3. Bioaccumulative potential

Bioconcentration factor (BCF)	Value: 3 Species: Fisk Comments: CAS: 27858-32-8
Bioaccumulation, evaluation	Not entered.

12.4. Mobility in soil

Mobility	Diisopropoxydi(ethoxyacetoacetyl)titanate: Koc = 1,53
Mobility evaluation	Not entered.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	Not Classified as PBT/vPvB by current EU criteria.
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12.6. Endocrine disrupting properties

Endocrine disrupting properties	This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.
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12.7. Other adverse effects

Additional ecological information	No information.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate methods of disposal for the chemical	Avoid release to the environment. Collect spillage. Dispose of waste and residues in accordance with local authority requirements.
EWC waste code	EWC waste code: 080410 waste adhesives and sealants other than those mentioned in 08 04 09 Classified as hazardous waste: No
EWL packing	EWC waste code: 150102 plasticpackaging Classified as hazardous waste: No

SECTION 14: Transport information

Dangerous goods	No
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14.1. UN number

Comments	The product is not classified as dangerous goods.
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14.2. UN proper shipping name

Comments	Not relevant.
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14.3. Transport hazard class(es)

Comments	Not relevant.
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14.4. Packing group

Comments	Not relevant.
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14.5. Environmental hazards

ADR/RID/ADN	Not relevant.
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14.6. Special precautions for user

Special safety precautions for user	Not relevant.
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14.7. Maritime transport in bulk according to IMO instruments

ICAO/IATA Other information

Other transport, general	Not relevant.
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SECTION 15: Regulatory information

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

Nanomaterial	No
Legislation and regulations	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (REACH). The List of Wastes (England) (Amendment) Regulations 2005. (SI 2005 No. 895). EH40/2005, Workplace exposure limits 2005, with amendments.

15.2. Chemical safety assessment

Chemical safety assessment performed	No
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SECTION 16: Other information

Supplier's notes	The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.
List of relevant H-phrases (Section 2 and 3)	H226 Flammable liquid and vapour. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H351 Suspected of causing cancer .
Key literature references and sources for data	MSDS supplied by the manufacturer
Information added, deleted or revised	Relevant changes compared to the previous version of the safety data sheet are indicated with verticle lines in the left margin.
Version	3