

Safety Data Sheet according to Regulation (EC) No. 1907/2006

Printed: 28/06/2018
Revision date : -
Valid from: 28/06/2018
Version: 1.0

Replaces revision of: -



1 Identification of the substance and of the company

1.1 Product identifier

Name of product: **Biofibre® Silva**
Synonym: Natural fiber reinforced biopolyester resin
Substance registration number: Concerning polymers like biopolyesters the regulations for registration of title II of the regulation (EC) No. 1907/2006 shall not apply according to article 2(9) and thus polymers need not to be registered. The respective monomers are registered according to article 6(3).

1.2 Relevant identified uses of the substance and uses advised against

Relevant identified uses of the substance: Natural fiber reinforced Bioplastic composites for the production of highly biobased injection molded parts
Uses advised against: Technical processing at temperatures above 230 °C

1.3 Details of the supplier of the safety data sheet

Distributor: Biofibre GmbH
Street: Europaring 4
Nat.-Abbr./ZIP/City: D-94315 Straubing
Contact number for technical information: +49 (0) 871 / 308-0
Telephone / Telefax / E-Mail: +49 (0) 871 / 308-0 / +49 (0) 9421 / 785-225 / info@biofibre.de

1.4 Emergency telephone number

+49 (0) 871 / 308-0 (available during office hours)

2 Hazards Identification

2.1 Classification of the substance according to regulation (EC) 1272/2008 (CLP/GHS)

The product is not classified as dangerous according to Directives 67/548/EEC or 1999/45/EC
The product is not classified as dangerous according to Regulation (EC) 1272/2008 (GHS)
The product is not classified as dangerous according to UN-GHS
The product does not require a hazard warning label according to Regulation (EC) No 1272/2008 (GHS)

2.2 Other hazards

Substance does not contain toxic constituents. Risk of burns upon contact with hot product. Toxic vapors during combustion

3 Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixture

Major constituents (>90 mass-%)
Substance name: Wood, biopolyesters, modified, polylactid
All constituent are not considered to be hazardous within the meaning of the regulation (EC) No 1272/2008 and the regulation 67/548/EEC

4 First aid measures

4.1 Description of first aid measures

Inhalation

Remove person from danger area. Supply person with fresh air and consult doctor according to symptoms.

Skin contact

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After contact with molten Polymer cool the skin immediately with cold water. Wash skin with water and soap only. To remove adherent Material from the skin and for wound treatment consult a doctor

Eye contact

Rinse eyes cautiously for several minutes using copious water. If possible remove contact lenses. Continue with rinsing. Consult a doctor, have data sheet available.

Ingestion

No consequences known. If needed, give copious water to spill and to drink. If there is discomfort against the expectation consult a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Hot material may cause burns on the skin. No information on delayed symptoms and effects

4.3 Indication of any immediate medical attention and special treatment needed

Treatment according to the symptoms and supportive

5 Firefighting measures

5.1 Extinguishing media

Suitable: Water, alcohol-resistant foam, carbon dioxide, dry chemical or vaporizing liquid extinguishing agents

Unsuitable: Not known

5.2 Special hazards arising from the substance

Prevent formation of dust. Distribution of fine dust in the air in sufficient concentration and in presence of a fire source may lead to increased danger of a dust explosion. When the material is incompletely combusted, this may lead to the formation of CO and volatile organic compounds.

5.3 Advice for firefighters

Carbon oxides, aldehydes

May lead to the formation of caustic and toxic volatiles during combustion

Use safety equipment and follow safety measures. Use firefighting kit including self-contained breathing apparatus (SCBA).

Keep away uninvolved personnel.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing. Ensure sufficient supply of air, avoid inhalation, and contact with eyes or skin

6.2 Environmental precautions

Prevent surface and ground-water infiltration, as well as ground penetration, prevent from entering drainage system, if accidental entry into drainage system occurs, inform responsible authorities

6.3 Methods and material for containment and cleaning up

Pick up mechanically and dispose of according to Section 13. As a precaution, douse dust with water

6.4 Reference to other sections

Safe handling: see chapter 7

Personal protection: see chapter 8

Disposal instructions: see chapter 13

7 Handling and storage

7.1 Precautions for safe handling

Avoid eating, drinking and smoking during processing of this product. Reduce the development and accumulation of dust as far as possible. Handling operations with dry powders may lead to friction induced electricity, so avoid static loading and the formation of fine particles. Avoid contact with hot product.

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7.2 Conditions for safe storage, including any incompatibilities

Not applicable according to the terms of regulations. Keep the product cool (< 50 °C) and dry during storage. Prevent exposure to intense heat, fire, sparks, and flames and other sources that may lead to sudden ignition. Keep away from strong oxidizing agents and strong bases.

7.3 Specific end use(s)

Biobased granulate for injection molding and hereover produced parts

7.4 Storage

Keep away from UV-Rays and moisture. Keep material cool and in closed containers. Avoid any sources of ignition. Take precautions for static loading. Use safe electric devices. Prohibit use of open flames. Product can be stored in bags, big bags, containers, silos and bulk cartons.

8 Exposure controls/personal protection

Ensure good ventilation. This can be achieved by local suction or general air extraction. If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn. Normal working clothes according to local regulations, e.g. wear suitable body protection including working clothes, if applicable safety goggles, and heat-protective gloves. General hygiene measures for the handling of chemicals are applicable. Wash hands before breaks and at end of work. Keep away from food, drink and animal feedingstuffs. Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance/shape:	granulate
Physical state at room temperature:	solid
Color:	brown
Odor:	weak, wooden
Melting point (PLA):	170 °C
Melting area:	155-175 °C
Density:	1.26 g/cm ³
Oxidising properties:	not oxidising
Explosive limits:	not applicable, product is not explosive
Solubility	insoluble to very limited solubility in water the polymeric constituent as well as the additives are soluble in cooking aromatic chlorinated solvent
Start thermal degradation:	230 °C (dependent on time of exposure)
Spontaneous ignition:	>400 °C

10 Stability and reactivity

10.1 Reactivity

The material is stable under normal processing and storage conditions

10.2 Chemical stability

Stable under the recommended storage conditions

10.3 Possibility of hazardous reactions

Hazardous reactions will not occur during storage and handling under normal conditions.

10.4 Conditions to avoid

See also section 7.

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Protect from humidity and extreme heat. Thermal degradation starts at temperatures > 230 °C.

10.5 Incompatible materials

Avoid contact with strong oxidising agents and strong alkalis

10.6 Hazardous decomposition products

See also section 5.2

11 Toxicological information

Acute toxicity:	None at room temperature
corrosiveness/irritation to skin:	None at room temperature
Additional informations:	If the product is used according to the directions for use, no toxicological effects are to be expected.

12 Ecological information

General information:	The product is non-toxic. Small particles can have physical effects on water and soil organisms
Other notes:	The product is biodegradable under industrial and physiological conditions. The material should be processed and used according to normal practices. Distribution of the product in the environment should be avoided.

13 Disposal considerations

The pre-consumer and post-consumer waste is fully recycleable. Combustion possible under local regulations. Pay attention to local and national official regulations. European Waste Catalogue (EWC) Code 07 02 13.

14 Transport information

Transport by road/by rail (ADR/RID)	not restricted
Transport by sea (IMDG-code)	not restricted
Transport by air (IATA/ICAO):	not restricted

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance

Labeling: This product is not considered as hazardous according to EC-regulation 67/548. Classification and labelling is not required according to with EC Directive CEE 88/379.

16 Other information

The raw materials, additives, and fillers do not or only contain minimal amounts of substances from the following list: Asbestos, cadmium, mercury, lead, chrome, arsene, antimony, nitroamine, FCKW Chlorofluorocarbons hydrocarbons, formaldehyde, vinyl chloride, dioxine und furane, pentachlorophenol, tetrachloroethylene, trichloroethylene, organobromine compound

This data is based on the current state of our information and experience. This safety data sheet describes our product in terms of safety requirements. Preceding data is not applicable as a warranty of product properties. It is the responsibility of the recipient to observe the existing legal regulations for the use of this product.