

# Safety Data Sheet GLACE SMARTFIL®

## 1. Identification of the substance or mixture and company responsible for product identification manufacturing / marketing:

1

### 1.1 Identification

SMARTFIL® GLACE

### 1.2 Forms of use

Filament for FFF/FDM technology based 3D printing.

### 1.3 Company



#### SMART MATERIALS 3D

Pol. Ind. El Retamar · C/ Tomillo 7 – Vial G

23680 Alcalá la Real (Jaén) SPAIN

Tel. (+34) 953 041 993 - Fax. (+34) 953 113 527

[info@smartmaterials3d.com](mailto:info@smartmaterials3d.com) - [www.smartmaterials3d.com](http://www.smartmaterials3d.com)

SMARTFIL® by Smart Materials 3D

**1.3 Emergency phone:** 112

## 2. Hazards identification

### 2.1 Classification

- Classification according to Regulation (EC) No 1272/2008: The product is not classified according to the CLP regulation.
- Classification according to the directive 67/548/CEE or Directive 1999/45/CE: Not classified.
- Classification System: Not required to identify the product according to the calculation procedure in the latest valid version of the "General Classification guideline for preparations of the EU"

## 2.2 Label elements

Labelling according to EC guidelines:

The product is not subject to classification according to the calculation methods of the "General Classification Guideline for Preparations of the EU" as issued in the latest valid version.

Usual preventive measures should be considered for the manipulation of chemical products.

## 2.3 Other Hazards

- Results of the valuation PBT y mPmB

PBT: Non-applicable

mPmB: Non-applicable

## 3. Composition

- Polyvinyl butyral > 97.5 % CAS: 68648-78-2

### 3.1 Chemical characterization: Mixes

Description: Polymer

Dangerous components: Non-applicable.

## 4. First aids:

### 4.1 Description of First Aids

- General instruction: Change clothes impregnated with the product.
- In case of inhalation: Supply fresh air. In case of disturbances, consult a doctor.
- After inhalation of decomposition products, breathe fresh air, rest, seek medical help.
- In case of skin contact: Wash with soap and water. Visit your doctor if irritation continues skin.
- After contact with molten product, cool rapidly with cold water. No skin separating the solidified product. Call a doctor immediately.
- In case of eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. Remove contact lenses, if present and easy. Continue rinsing.
- If swallowed: Rinse mouth and drink plenty of water. Do not induce vomiting. Consult doctor in case of persistent symptoms.

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

There is not relevant information available.

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

There is not relevant information available.

3

### **5. Firefighting measures:**

#### **5.1 Suitable extinguishing media**

Water fog. Foam. Dry powder. Carbon dioxide (CO<sub>2</sub>). Apply extinguishing media carefully to avoid creating airborne dust. Use fire-extinguishing media appropriate for surrounding materials.

#### **5.2. Unsuitable extinguishing media for safety reasons**

Do not use a solid water stream as it may scatter and spread fire.

#### **5.3 Special hazards arising from the substance or mixture**

Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. During fire, gases hazardous to health may be formed.

#### **5.4 Advice for firefighters**

Protective equipment: Wear protective breathing apparatus independent of the ambient air.

### **6. Measures in case of accidental release**

#### **6.1 Personal precautions,**

- Protective equipment and emergency procedures
- Avoid dust formation.
- Do not breathe dust.
- Keep away from sources of ignition.
- Avoid eye contact.
- Danger of slipping on spilled product or pouring.

#### **6.2 Environmental cautions:**

Do not discharge into drains / surface water / ground water.

#### **6.3 Methods and materials for containment and cleaning up:**

Avoid dust formation. Collect dust or particulates using a vacuum cleaner with a HEPA filter.

## 7. Handling and Storage:

### 7.1. Precautions for safe handling

- Ensure good ventilation / exhaustion at the workplace.
- Avoid dust formation.
- Do not inhale fumes / dust produced.
- Remove regularly dust that inevitably form.
- Avoid contact with the eyes and skin.
- Complying value / it is of the CMA.
- Avoid contact with the product I heat.

#### Prevention of fire and explosion:

- Protect against electrostatic charges.
- Keep away from sources of ignition - No smoking.
- Protect from heat.
- The enrichment of fine dust in presence of air can lead to danger of dust explosion.

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

- Requirements to be met by storerooms and receptacles:



- Standards in one common storage facility: Not required
- Further information about storage conditions: Store it in a tightly sealed container in a cool, dry place.

## 8. Exposure controls / personal protection

Additional information about design of technical facilities:  
No additional data, consult section 7.

### 8.1 Control parameters

Components with admissible limit values that require monitoring at the workplace: Do not exceed the values for dust concentration.

Additional information: Based on references valid at the time of processing

### 8.2 Personal protection equipment.

#### General safety and hygiene:

- Keep away from foodstuffs, beverages, and food.



- Do not eat, drink, smoke, or sniff snuff during work.
- Do not breathe dust / smoke / mist.
- Avoid contact with eyes and skin.
- Wash hands before breaks and after work.

**Breathing equipment:**

- Surely concentrations below the value of the CMA does not require special measures.

**Protection of hands:**

- For use of chemical protective gloves is required.
- For handling product, I heat / cast heat resistant gloves.

**Eye protection:**

- Protection glasses

**Body protection:**

- For handling, hot / molten heat resistant protective clothing product.

**9. Fisical and chemical properties:**

- A. Appearance: Transparent.
- B. Odor: Odorless
- C. Odour Threshold: NA
- D. pH: NA
- E. Boiling Point (° C): NA
- F. Melting point (° C): 190-230
- G. Softening point (° C): 84
- H. Evaporation Rate: NA
- I. Properties Flammable / Explosive: NA
- J. Vapor pressure / vapor density: NA
- K. Relative density: 1.1
- L. Solubility: Alcohol
- M. Octanol / water partition: NA
- N. Auto-ignition temperature: > 380 °C
- O. Decomposition temperature: NA
- P. Viscosity: NA
- Q. Other properties: NA

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

Consult 10.3.

**10.2 Chemical stability**

Thermal decomposition / conditions to be avoided:

- No decomposition with storage and proper handling.
- Avoid impact, friction, heat, sparks, and electrostatic charges.

**10.3 Possibility of dangerous reactions.**

No dangerous reaction known under conditions of normal use.

#### 10.4 Conditions to be avoided

No further relevant information.

#### 10.5 Incompatible materials

Strong oxidants.

#### 10.6 Strong decomposition products

- Carbon oxide.

6

### 11. Toxicological Information

#### 11.1 Information on toxicological effects

Not applicable

##### Primary irritant effect:

- on the skin: Dust may cause mechanical irritation.
- In the eye: Dust may cause mechanical irritation.
- Sensitization: No sensitizing effects known.
- Subacute to chronic toxicity: no data
- Additional toxicological information: According to our experience and the information we have about the product does not cause any adverse health effects when handled properly and used for the purposes specified.
- CMR effects (carcinogenicity, mutagenicity, and toxicity for reproduction). Based on current information, it is known that no CMR effects.

### 12. Ecological information

#### 12.1 Ecotoxicity

It is not expected to be very toxic, but if ingested by birds or aquatic life, can cause adverse mechanical effects

#### 12.2 Mobility

No data available.

#### 12.3 Persistence and degradability

This solid water-insoluble polymeric are expected to be inert in the environment. Surface degradation is expected with exposure to sunlight. Appreciable biodegradation is not expected.

#### 12.4 Additional ecological information

General instructions: CPA 1 (auto classification): not dangerous for water.

#### 12.5 Results of PBT y mPmB

PBT: Non-applicable.

mPmB: Non-applicable.

## 13 Disposal considerations

### 13.1 Methods for treating waste

Recommendation: Disposal according to official regulations.

#### European waste catalog (EWC):

Allocation of waste codes according to the European waste list depends on the source generating the waste.

#### Contaminated packaging:

Recommendation: Disposal according to official regulations.

## 14 Transport information

Not regulated.

## 15 Regulatory information

Not regulated.

## 16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.