

# Safety data sheet

Page: 1/10

BASF 3D Printing Safety data sheet according to UN GHS 4th rev.

Date / Revised: 15.12.2022 Version: 2.1

Product: Ultrafuse® PET Pearl White

(ID no. 11129060/SDS\_GEN\_00/EN)

Date of print 09.01.2023

#### 1. Identification

#### **Product identifier**

## **Ultrafuse® PET Pearl White**

Recommended use: 3D Printing

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

Company:
BASF 3D Printing Solutions B.V.
Eerste Bokslootweg 17
7821 AT Emmen, Netherlands

Telephone: + 31 591 820 389

E-mail address: sales@basf-3dps.com

### **Emergency telephone number**

International emergency number: Telephone: +49 180 2273-112

#### 2. Hazards Identification

#### Classification of the substance or mixture

According to UN GHS criteria

No need for classification according to GHS criteria for this product.

### **Label elements**

Globally Harmonized System (GHS)

The product does not require a hazard warning label in accordance with GHS criteria.

Date / Revised: 15.12.2022 Version: 2.1

Product: Ultrafuse® PET Pearl White

(ID no. 11129060/SDS\_GEN\_00/EN)

Date of print 09.01.2023

#### Other hazards

According to UN GHS criteria

The product may cause burns, if handled in the melted state.

### 3. Composition/Information on Ingredients

#### **Substances**

Not applicable

#### **Mixtures**

Chemical nature

Polymer

Hazardous ingredients (GHS)

According to UN GHS criteria

No particular hazards known.

#### 4. First-Aid Measures

## **Description of first aid measures**

Remove contaminated clothing.

If inhaled:

Remove the affected individual into fresh air and keep the person calm. If symptoms persist, seek medical advice.

On skin contact:

Wash thoroughly with soap and water If irritation develops, seek medical attention. Burns caused by molten material require hospital treatment.

On contact with eyes:

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek medical attention.

On ingestion:

Rinse mouth immediately with water. Immediate medical attention required.

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

Symptoms: (Further) symptoms and / or effects are not known so far

Hazards: No hazard is expected under intended use and appropriate handling.

Date / Revised: 15.12.2022 Version: 2.1

Product: Ultrafuse® PET Pearl White

(ID no. 11129060/SDS\_GEN\_00/EN)

Date of print 09.01.2023

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

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

## 5. Fire-Fighting Measures

### **Extinguishing media**

Suitable extinguishing media:

water spray, foam, dry powder, carbon dioxide

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

carbon oxides

The substances/groups of substances mentioned can be released in case of fire.

#### Advice for fire-fighters

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

Dust can form an explosive mixture with air. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

#### 6. Accidental Release Measures

Avoid dispersal of dust in the air (e.g. by clearing dusty surfaces with compressed air). Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition.

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

No special precautions necessary.

## **Environmental precautions**

Do not discharge into drains/surface waters/groundwater.

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

For small amounts: Sweep/shovel up. For large amounts: Sweep/shovel up.

Dispose of absorbed material in accordance with regulations. Avoid raising dust.

### 7. Handling and Storage

### Precautions for safe handling

Avoid inhalation of dusts/mists/vapours. Ensure adequate ventilation. Provide suitable exhaust ventilation at the drying process and in the area surrounding the melt outlet of processing machines. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Avoid the formation and deposition of dust.

Protection against fire and explosion:

Date / Revised: 15.12.2022 Version: 2.1

Product: Ultrafuse® PET Pearl White

(ID no. 11129060/SDS\_GEN\_00/EN)

Date of print 09.01.2023

The product is not an oxidizer, not self-combustible and not explosive. Avoid dust formation. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition.

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

Suitable materials for containers: Low density polyethylene (LDPE), High density polyethylene (HDPE), Polypropylene (PP), Polystyrene (PS)

Further information on storage conditions: Avoid deposition of dust. Avoid extreme heat.

Storage stability:

Protect against moisture.

#### Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

## 8. Exposure Controls/Personal Protection

### **Control parameters**

Components with occupational exposure limits

25038-59-9: Polyethyleneterephthalate (PET)

#### **Exposure controls**

### Personal protective equipment

Respiratory protection:

Breathing protection if breathable aerosols/dust are formed. Wear respiratory protection if ventilation is inadequate. Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

Hand protection:

Use additional heat protection gloves when handling hot molten masses (EN 407), e.g. of textile or leather.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

#### Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

#### General safety and hygiene measures

Wear protective clothing to prevent contact during mechanical processing and/or hot melt conditions. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. When using, do not eat, drink or smoke.

Date / Revised: 15.12.2022 Version: 2.1

Product: Ultrafuse® PET Pearl White

(ID no. 11129060/SDS\_GEN\_00/EN)

Date of print 09.01.2023

### 9. Physical and Chemical Properties

## Information on basic physical and chemical properties

Form: filament

Colour: pearl white with very slight green reflection

Odour: odourless

Odour threshold:

not applicable, odour not perceivable

pH value:

not applicable, substance/mixture is

non-soluble (in water)

> 200 °C Melting point:

Boiling point:

not applicable

Flash point:

not applicable, the product is a solid

**Evaporation rate:** 

The product is a non-volatile solid. Flammability: Not a flammable solid according to UN transport regulations division 4.1

and GHS chapter 2.7.

Lower explosion limit:

For solids not relevant for classification and labelling.

Upper explosion limit:

For solids not relevant for classification and labelling.

Ignition temperature:

not applicable

Vapour pressure:

not determined

Density: 1,38 g/cm3

(25 °C)

Relative vapour density (air):

The product is a non-volatile solid.

Solubility in water: insoluble

Partitioning coefficient n-octanol/water (log Kow):

not applicable for mixtures

Self ignition: not self-igniting

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Prolonged thermal loading can result in products of degradation being

given off.

Viscosity, kinematic:

not applicable, the product is a solid

Explosion hazard: not explosive

Fire promoting properties: not fire-propagating

#### Other information

Self heating ability: It is not a substance capable of

spontaneous heating.

Other Information:

Date / Revised: 15.12.2022 Version: 2.1

Product: Ultrafuse® PET Pearl White

(ID no. 11129060/SDS\_GEN\_00/EN)

Date of print 09.01.2023

If necessary, information on other physical and chemical parameters is indicated in this section.

## 10. Stability and Reactivity

#### Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals: No corrosive effect on metal.

### **Chemical stability**

The product is stable if stored and handled as prescribed/indicated.

#### Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

The product is chemically stable.

### **Conditions to avoid**

Temperature: > 300 °C

Prolonged exposure to elevated temperatures may result in exothermic decomposition accompanied by a pressure build-up in sealed containers. Avoid all sources of ignition: heat, sparks, open flame.

### Incompatible materials

Substances to avoid: oxidizing agents

#### **Hazardous decomposition products**

Hazardous decomposition products: monomers, gases/vapours, hydrocarbons, oxides

### 11. Toxicological Information

#### Information on toxicological effects

#### Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact. Contact with molten product may cause thermal burns.

Experimental/calculated data:

(oral):No applicable information available.

(by inhalation): The inhalation of dusts represents a potential acute hazard.

(dermal):No applicable information available.

### Irritation

Assessment of irritating effects:

Not irritating to eyes and skin. May cause mechanical irritation.

Date / Revised: 15.12.2022 Version: 2.1

Product: Ultrafuse® PET Pearl White

(ID no. 11129060/SDS\_GEN\_00/EN)

Date of print 09.01.2023

#### Respiratory/Skin sensitization

Assessment of sensitization:

Based on available data, the classification criteria are not met.

### Germ cell mutagenicity

Assessment of mutagenicity:

Based on available data, the classification criteria are not met.

#### Carcinogenicity

Assessment of carcinogenicity:

Based on available data, the classification criteria are not met.

#### Reproductive toxicity

Assessment of reproduction toxicity:

Based on available data, the classification criteria are not met.

#### Developmental toxicity

Assessment of teratogenicity:

Based on available data, the classification criteria are not met.

#### Specific target organ toxicity (single exposure)

Assessment of STOT single:

Based on available data, the classification criteria are not met.

#### Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

Based on available data, the classification criteria are not met.

### **Aspiration hazard**

not applicable

## 12. Ecological Information

### **Toxicity**

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms.

### Persistence and degradability

Assessment biodegradation and elimination (H2O):

Experience shows this product to be inert and non-degradable.

### Bioaccumulative potential

Date / Revised: 15.12.2022 Version: 2.1

Product: Ultrafuse® PET Pearl White

(ID no. 11129060/SDS\_GEN\_00/EN)

Date of print 09.01.2023

Assessment bioaccumulation potential:

Accumulation in organisms is not to be expected.

Bioaccumulation potential:

Accumulation in organisms is not to be expected.

#### Mobility in soil

Assessment transport between environmental compartments:

Adsorption in soil: Study scientifically not justified.

#### Results of PBT and vPvB assessment

The product does not fulfill the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative).

## **Additional information**

Add. remarks environm. fate & pathway:

Due to the consistency of the product, dispersion into the environment is impossible. Therefore no negative effects on the environment may be anticipated based on the present state of knowledge.

## 13. Disposal Considerations

#### Waste treatment methods

Must be disposed of or incinerated in accordance with local regulations.

A waste code in accordance with the European waste catalog (EWC) cannot be specified, due to dependence on the usage.

The waste code in accordance with the European waste catalog (EWC) must be specified in cooperation with disposal agency/manufacturer/authorities.

Contaminated packaging:

Packs that cannot be cleaned should be disposed of in the same manner as the contents. Uncontaminated packaging can be re-used.

## 14. Transport Information

#### Land transport

**ADR** 

Not classified as a dangerous good under transport regulations

UN number or ID number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Special precautions for

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

Date / Revised: 15.12.2022 Version: 2.1

Product: Ultrafuse® PET Pearl White

(ID no. 11129060/SDS\_GEN\_00/EN)

Date of print 09.01.2023

user

**RID** 

Not classified as a dangerous good under transport regulations

UN number or ID number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Not applicable
Not applicable
Not applicable

None known

user

**Inland waterway transport** 

Special precautions for

ADN

Not classified as a dangerous good under transport regulations

UN number or ID number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Special precautions for

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

user:

Transport in inland waterway vessel

Not evaluated

#### Sea transport

**IMDG** 

Not classified as a dangerous good under transport regulations

UN number or ID number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Special precautions for

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

user

#### Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

UN number or ID number
UN proper shipping name:
Transport hazard class(es):
Packing group:
Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

Date / Revised: 15.12.2022 Version: 2.1

Product: Ultrafuse® PET Pearl White

(ID no. 11129060/SDS\_GEN\_00/EN)

Date of print 09.01.2023

Special precautions for user

None known

## Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

## 15. Regulatory Information

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

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

#### 16. Other Information

Any other intended applications should be discussed with the manufacturer. Corresponding occupational protection measurements must be followed.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

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