

# Safety data sheet

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BASF Safety data sheet according to UN GHS 4th rev. Date / Revised: 14.05.2020 Product: Ultrafuse® PLA Dark Green TR

Version: 2.0

(ID no. 11129038/SDS\_GEN\_00/EN)

Date of print 20.03.2021

## 1. Identification

**Product identifier** 

## Ultrafuse® PLA Dark Green TR

Recommended use: 3D Printing, for industrial use only

## 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.

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## Other hazards

According to UN GHS criteria

No specific dangers known, if the regulations/notes for storage and handling are considered.

## 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. Assist in breathing if necessary. If symptoms persist, seek medical advice.

On skin contact:

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

#### 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: Keep patient calm, remove to fresh air. Immediate medical attention required.

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

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

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

#### 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

#### 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: Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

## 6. Accidental Release Measures

Avoid dispersal of dust in the air (i.e., clearing dust 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. Vacuum up spilled product. Reclaim for processing if possible. Ensure adequate ventilation. Avoid raising dust.

## 7. Handling and Storage

#### Precautions for safe handling

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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:

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)

Storage stability: Protect against moisture.

## 8. Exposure Controls/Personal Protection

#### **Control parameters**

Components with occupational exposure limits

No occupational exposure limits known.

#### **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.

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## 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Form: Colour: Odour: Odour threshold:	filament dark green odourless	
pH value:	not applicable	
melting range:	not applicable 150 - 180 °C	
Boiling point:	not applicable	
Flash point:	not applicable	
Evaporation rate:	The product is a non-volatile solid.	
Flammability: Lower explosion limit:	not flammable	
	For solids not relevant for classification and labelling.	
Upper explosion limit:	For solids not relevant for	
Ignition temperature:	classification and labelling.	
Vapour pressure:	not applicable	
Density:	not applicable 1,25 g/cm3 (25 °C)	
Relative vapour density (air):		
Solubility in water:	not applicable insoluble -octanol/water (log Kow):	
Self ignition:	not applicable not self-igniting	
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated. Prolonged thermal loading can result in products of degradation being	
Viscosity, dynamic:	given off.	
Viscosity, kinematic:	not applicable	
Explosion hazard: Fire promoting propertie	not applicable, the product is a solid not explosive s: not fire-propagating	

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#### Other information

Self heating ability: It is not a substance capable of spontaneous heating.

Bulk density:

dropped

Other Information: 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, oxides, hydrocarbons

## **11. Toxicological Information**

#### Information on toxicological effects

Acute toxicity

Assessment of acute toxicity: Contact with molten product may cause thermal burns.

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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: May cause slight irritation to the skin. May cause slight irritation to the eyes.

Experimental/calculated data: Skin corrosion/irritation: May cause mechanical irritation.

Serious eye damage/irritation: May cause mechanical irritation.

Respiratory/Skin sensitization

#### Assessment of sensitization:

The chemical structure does not suggest a sensitizing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

#### Germ cell mutagenicity

#### Assessment of mutagenicity:

The chemical structure does not suggest a specific alert for such an effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

#### Carcinogenicity

#### Assessment of carcinogenicity:

The chemical structure does not suggest a specific alert for such an effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

#### Reproductive toxicity

#### Assessment of reproduction toxicity:

The chemical structure does not suggest a specific alert for such an effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

#### Developmental toxicity

#### Assessment of teratogenicity:

The chemical structure does not suggest a specific alert for such an effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

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#### 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:

Repeated exposure to the substance by dermal administration leads to effects similar to those found after single exposure. Repeated exposure to the substance by inhalative administration leads to effects similar to those found after single exposure. Repeated exposure to the substance by oral administration leads to effects similar to those found after single exposure. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

#### Aspiration hazard

No aspiration hazard expected.

#### Other relevant toxicity information

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

## **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**

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:

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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

UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmental hazards: Special precautions for user	Not classified as a dangerous good under transport regulations Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable None known
RID	
UN number:	Not classified as a dangerous good under transport regulations Not applicable

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UN proper shipping name: Not applicable Transport hazard class(es): Not applicable Packing group: Not applicable Environmental hazards: Not applicable Special precautions for None known user

## Inland waterway transport

ADN

user:

UN number:

Packing group:

Not classified as a dangerous good under transport regulations Not applicable UN proper shipping name: Not applicable Transport hazard class(es): Not applicable Not applicable Environmental hazards: Not applicable Special precautions for None known

Transport in inland waterway vessel Not evaluated

#### Sea transport

#### IMDG

Not classified as a dangerous good under transport regulations UN number: Not applicable Not applicable UN proper shipping name: Transport hazard class(es): Not applicable Packing group: Not applicable Environmental hazards: Not applicable Special precautions for None known user

#### Air transport

#### IATA/ICAO

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for	None known

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#### user

## Transport in bulk according to Annex II of MARPOL and the IBC Code

Regulation: Shipment approved:	Not evaluated Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

## 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.

Vertical lines in the left hand margin indicate an amendment from the previous version.