

# Safety data sheet

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

Date / Revised: 06.11.2020

Product: **Ultrafuse® TPU 95A Black**

Version: 2.0

(ID no. 11123036/SDS\_GEN\_00/EN)

Date of print 20.03.2021

## 1. Identification

### Product identifier

## Ultrafuse® TPU 95A Black

| 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 Bokslotweg 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

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## 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.

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## 3. Composition/Information on Ingredients

### Substances

Not applicable

### Mixtures

Chemical nature

Polymer based on: polyurethane, stabilizing agents, additives

Hazardous ingredients (GHS)

According to UN GHS criteria

No particular hazards known.

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## 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.

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## **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.

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## **6. Accidental Release Measures**

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

No special precautions necessary.

### **Environmental precautions**

Discharge into the environment must be avoided.

### **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.

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## **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.

Protection against fire and explosion:

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The product is not an oxidizer, not self-combustible and not explosive.

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

Segregate from foods and animal feeds.

Suitable materials for containers: High density polyethylene (HDPE), Low density polyethylene (LDPE), Paper/Fibreboard, Polystyrene (PS)

Further information on storage conditions: Avoid extreme heat. Protect against moisture.

Storage stability:

Protect against moisture.

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## **8. Exposure Controls/Personal Protection**

### **Control parameters**

Components with occupational exposure limits

| No substance specific 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**

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Form:	filament
Colour:	black
Odour:	odourless
Odour threshold:	not applicable
pH value:	not applicable
softening temperature:	> 120 °C
boiling temperature:	The product is a non-volatile solid.
Flash point:	not applicable
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. Based on the structure or composition there is no indication of flammability
Lower explosion limit:	For solids not relevant for classification and labelling.
Upper explosion limit:	For solids not relevant for classification and labelling.
Ignition temperature:	> 400 °C
Vapour pressure:	not applicable
Density:	approx. 1,1 - 1,2 g/cm <sup>3</sup> (20 °C)
Relative density:	approx. 1,1 - 1,2 (20 °C)
Relative vapour density (air):	not applicable
Solubility in water:	insoluble
Partitioning coefficient n-octanol/water (log Kow):	not applicable
Self ignition:	not self-igniting
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated. > 230 °C Thermal decomposition above the indicated temperature is possible. Prolonged thermal loading can result in products of degradation being given off.
Viscosity, dynamic:	not applicable
Explosion hazard:	not explosive
Fire promoting properties:	not fire-propagating

**Other information**

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Self heating ability: It is not a substance capable of spontaneous heating according to UN transport regulations class 4.2.

Bulk density: 500 - 700 kg/m<sup>3</sup>  
(20 °C)

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## 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 when stored and handled according to instructions.

### Conditions to avoid

No conditions to avoid anticipated.

### Incompatible materials

Substances to avoid:  
oxidizing agents

### Hazardous decomposition products

Thermal decomposition products:  
Prolonged thermal loading can result in products of degradation being given off.

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## 11. Toxicological Information

### Information on toxicological effects

#### Acute toxicity

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

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

(dermal):No applicable information available.

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### Irritation

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.

### 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.

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#### 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.

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## 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 (H<sub>2</sub>O):

Poorly biodegradable.

Elimination information:

Poorly biodegradable.

### **Bioaccumulative potential**

Assessment bioaccumulation potential:

Does not significantly accumulate in organisms.

### **Mobility in soil**

Assessment transport between environmental compartments:

Adsorption in soil: Due to the product characteristics the test is impossible.

### **Results of PBT and vPvB assessment**

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria.

### **Other adverse effects**

The product does not contain substances that are listed in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

### **Additional information**

Adsorbable organically-bound halogen (AOX):



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This product contains no organically-bound halogen.

Other ecotoxicological advice:

The ecotoxic effect of the product has not been tested. The information on this was derived from products of similar structure or composition.

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## 13. Disposal Considerations

### Waste treatment methods

Dispose of in accordance with national, state and local regulations.

Contaminated packaging:

Dispose of in accordance with national, state and local regulations.

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## 14. Transport Information

### Land transport

ADR

	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 user	None known

RID

	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 user	None known

### Inland waterway transport

ADN

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

#### **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 user: None known

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

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

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## 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.

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## 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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