

# Safety data sheet

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

Date / Revised: 14.11.2019

Product: **Ultrafuse TPE 60D**

Version: 3.0

(ID no. 961900/SDS\_GEN\_00/EN)

Date of print 16.11.2019

## 1. Identification

### Product identifier

#### **Ultrafuse TPE 60D**

| 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

National Poisoning Information Centre: +31 30 – 2748888  
Information only for professionals in case of acute intoxication  
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)

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

### **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

Preparation based on: polyester, modified, Polylactide

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.

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**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.

**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**

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**

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. Avoid raising dust.

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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. 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: Carbon steel (Iron), High density polyethylene (HDPE), Low density polyethylene (LDPE), Polypropylene (PP)

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.

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## 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:

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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:   | filament  |             |
| Colour:   | natural   |             |
| Odour:  | odourless   |             |
| Odour threshold:                                    | not applicable  |             |
| pH value:   | not applicable  |             |
| melting range:                                      | 110 - 120 °C  | (DIN 53736) |
|   | 150 - 160 °C  | (DIN 53736) |
| Boiling point:                                      | not applicable  |             |
| Flash point:  | not applicable  |             |
| Evaporation rate:                                   | The product is a non-volatile solid.                      |             |
| Flammability:                                       | not flammable   |             |
| 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 applicable  |             |
| Density:  | approx. 0,8 - 1,4 g/cm <sup>3</sup><br>(20 °C, 1.013 hPa) |             |
| Relative density:                                   | approx. 0,8 - 1,4<br>(20 °C, 1.013 hPa)                   |             |
| Relative vapour density (air):                      | not applicable  |             |
| Solubility in water:                                | insoluble   |             |
| Partitioning coefficient n-octanol/water (log Kow): | not applicable  |             |

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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, dynamic: not applicable

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.

Bulk density: approx. 500 - 1.000 kg/m<sup>3</sup> (DIN 53466)  
(20 °C, 1.013 hPa)

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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

Avoid dust formation. Avoid deposition of dust.

### 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.

#### Irritation

Assessment of irritating effects:

Not irritating to the eyes. Not irritating to the skin. Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

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.

#### 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.

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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. The product has not been tested. The statement has been derived from the structure of the product.

### Persistence and degradability

#### Assessment biodegradation and elimination (H<sub>2</sub>O):

The product is biodegradable. The product has not been tested. The statement has been derived from the properties of the individual components.



### **Bioaccumulative potential**

Bioaccumulation potential:

Because of the product's consistency and low water solubility, bioavailability is improbable.

### **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).

### **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**

Add. remarks environm. fate & pathway:

At the present state of knowledge, no negative ecological effects are expected.

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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   |

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|                              |                |
|------------------------------|----------------|
| 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   |
| 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

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|                              |  |
|------------------------------|--|
|                              | 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**

In addition to the information given in the safety data sheet we refer to the product specific 'Technical Information'. Any other intended applications should be discussed with the manufacturer.

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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