

# Safety data sheet

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BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 14.11.2019

Version: 5.0

Date previous version: 25.09.2019

Previous version: 4.1

Product: **Ultrafuse ABS**

(ID no. 957058/SDS\_GEN\_EU/EN)

Date of print 11.12.2019

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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

## Ultrafuse ABS

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use: 3D Printing, for industrial use only

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

Company:BASF 3D Printing Solutions B.V.  
Eerste Bokslotweg 17  
7821 AT Emmen, NetherlandsContact address:BASF SE  
67056 Ludwigshafen  
GERMANY

Telephone: +49 621 60-0

E-mail address: global.info@basf.com

### 1.4. Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

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## SECTION 2: Hazards Identification

### 2.1. Classification of the substance or mixture

For the classification of the mixture the following methods have been applied: extrapolation on the concentration levels of the hazardous substances, on basis of test results and after evaluation of experts. The methodologies used are mentioned at the respective test results.

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According to Regulation (EC) No 1272/2008 [CLP]

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

## **2.2. Label elements**

Globally Harmonized System, EU (GHS)

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

## **2.3. Other hazards**

According to Regulation (EC) No 1272/2008 [CLP]

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

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## **SECTION 3: Composition/Information on Ingredients**

### **3.1. Substances**

Not applicable

### **3.2. Mixtures**

Chemical nature

Polymer

Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

No particular hazards known.

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## **SECTION 4: First-Aid Measures**

### **4.1. 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:

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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:

Rinse mouth and then drink 200-300 ml of water. Do not induce vomiting. Seek medical attention.

#### **4.2. 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.

#### **4.3. 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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### **SECTION 5: Fire-Fighting Measures**

#### **5.1. Extinguishing media**

Suitable extinguishing media:  
water spray, foam, dry powder

#### **5.2. Special hazards arising from the substance or mixture**

fumes/smoke, carbon oxides, nitrogen oxides

#### **5.3. Advice for fire-fighters**

Special protective equipment:  
Wear a self-contained breathing apparatus.

Further information:

Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

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### **SECTION 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.

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

No special precautions necessary.

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## **6.2. Environmental precautions**

Do not allow to enter soil, waterways or waste water channels.

## **6.3. 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. After decontamination, spill area can be washed with water.

## **6.4. Reference to other sections**

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

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## **SECTION 7: Handling and Storage**

### **7.1. Precautions for safe handling**

Avoid inhalation of dusts/mists/vapours. Ensure adequate ventilation. Provide suitable exhaust ventilation at drying process and in the surrounding 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:

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. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

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

Further information on storage conditions: Keep container tightly closed. Avoid extreme heat. Avoid all sources of ignition: heat, sparks, open flame.

Storage stability:

Avoid prolonged storage.

### **7.3. 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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## **SECTION 8: Exposure Controls/Personal Protection**

### **8.1. Control parameters**

Components with occupational exposure limits

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100-42-5: styrene

107-13-1: acrylonitrile

## 8.2. 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:

Wear chemical resistant protective gloves.

Eye protection:

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

Body protection:

Standard work clothes and shoes.

### General safety and hygiene measures

Wear protective clothing to prevent contact during mechanical processing and/or hot melt conditions.

After use of gloves apply skin-cleaning agents and skin cosmetics.

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## SECTION 9: Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

Form:	filament
Colour:	various, depending on the colourant
Odour:	odourless
Odour threshold:	not applicable, odour not perceivable
pH value:	not determined
Melting point:	not determined
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.

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Upper explosion limit: For solids not relevant for classification and labelling.

Ignition temperature: not determined

Vapour pressure: not applicable

Relative density: 1.05 - 1.07 (25 °C)

Relative vapour density (air): not applicable

Solubility in water: negligible

Partitioning coefficient n-octanol/water (log Kow): not applicable for mixtures

Self ignition: not self-igniting

Thermal decomposition: > 300 °C

Viscosity, dynamic: not applicable, the product is a solid

Viscosity, kinematic: not applicable, the product is a solid

Fire promoting properties: not fire-propagating

## 9.2. Other information

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

Radioactivity: not radioactive for transport purposes

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## SECTION 10: Stability and Reactivity

### 10.1. Reactivity

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

Corrosion to metals: No corrosive effect on metal.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

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

### 10.4. Conditions to avoid

Temperature: > 300 °C

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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.

### **10.5. Incompatible materials**

Substances to avoid:  
oxidizing agents

### **10.6. Hazardous decomposition products**

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

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## **SECTION 11: Toxicological Information**

### **11.1. Information on toxicological effects**

#### Acute toxicity

Assessment of acute toxicity:

Contact with molten product may cause thermal burns. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation. Virtually nontoxic after a single ingestion. The product has not been tested. The statement has been derived from the properties of the individual components.

#### Irritation

Assessment of irritating effects:

May cause slight irritation to the skin. May cause slight irritation to the eyes. May cause slight irritation to the respiratory tract.

#### Respiratory/Skin sensitization

Assessment of sensitization:

A sensitizing effect on particularly sensitive individuals cannot be excluded.

#### Germ cell mutagenicity

Assessment of mutagenicity:

Not classified, due to lack of data.

#### Carcinogenicity

Assessment of carcinogenicity:

Not classified, due to lack of data.

#### Reproductive toxicity

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Assessment of reproduction toxicity:  
Not classified, due to lack of data.

#### Developmental toxicity

Assessment of teratogenicity:  
Not classified, due to lack of data.

#### 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:  
The information available on the product provides no indication of toxicity on target organs after repeated exposure.

#### Aspiration hazard

No aspiration hazard expected.

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## **SECTION 12: Ecological Information**

### **12.1. Toxicity**

Assessment of aquatic toxicity:  
The product has not been tested. The statement has been derived from the structure of the product. There is a high probability that the product is not acutely harmful to aquatic organisms.

### **12.2. Persistence and degradability**

Assessment biodegradation and elimination (H<sub>2</sub>O):  
Experience shows this product to be inert and non-degradable.

### **12.3. Bioaccumulative potential**

Bioaccumulation potential:  
The product will not be readily bioavailable due to its consistency and insolubility in water.

### **12.4. Mobility in soil**

Assessment transport between environmental compartments:  
Adsorption in soil: Adsorption to solid soil phase is possible.

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



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

### 12.6. Other adverse effects

No data available.

### 12.7. Additional information

Other ecotoxicological advice:

The product has been assessed on the basis of the components' available data. To some extent data gaps exist for individual components.

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## SECTION 13: Disposal Considerations

### 13.1. 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.

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## SECTION 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

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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

### **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

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

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Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

#### **14.1. UN number**

See corresponding entries for "UN number" for the respective regulations in the tables above.

#### **14.2. UN proper shipping name**

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

#### **14.3. Transport hazard class(es)**

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

#### **14.4. Packing group**

See corresponding entries for "Packing group" for the respective regulations in the tables above.

#### **14.5. Environmental hazards**

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

#### **14.6. Special precautions for user**

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

#### **14.7. 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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### **SECTION 15: Regulatory Information**

#### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

#### **15.2. Chemical Safety Assessment**

Product is not classified as hazardous.

Chemical Safety Assessment not required

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## SECTION 16: Other Information

### Assessment of the hazard classes according to UN GHS criteria (most recent version)

#### Abbreviations

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road.  
ADN = The European Agreement concerning the International Carriage of Dangerous Goods by Inland waterways. ATE = Acute Toxicity Estimates. CAO = Cargo Aircraft Only. CAS = Chemical Abstract Service. CLP = Classification, Labelling and Packaging of substances and mixtures. DIN = German national organization for standardization. DNEL = Derived No Effect Level. EC50 = Effective concentration median for 50% of the population. EC = European Community. EN = European Standards. IARC = International Agency for Research on Cancer. IATA = International Air Transport Association. IBC-Code = Intermediate Bulk Container code. IMDG = International Maritime Dangerous Goods Code. ISO = International Organization for Standardization. STEL = Short-Term Exposure Limit. LC50 = Lethal concentration median for 50% of the population. LD50 = Lethal dose median for 50% of the population. TLV = Threshold Limit Value. MARPOL = The International Convention for the Prevention of Pollution from Ships. NEN = Dutch Norm. NOEC = No Observed Effect Concentration. OEL = Occupational Exposure Limit. OECD = Organization for Economic Cooperation and Development. PBT = Persistent, Bioaccumulative and Toxic. PNEC = Predicted No Effect Level. PPM = Parts per million. RID = The European Agreement concerning the International Carriage of Dangerous Goods by Rail. TWA = Time Weight Average. UN-number = UN number at transport. vPvB = very Persistent and very Bioaccumulative.

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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