

# 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: 19.02.2020

Version: 4.0

Date previous version: 07.11.2019

Previous version: 3.2

Product: **ULTRASINT® TPU01 for HP Jet Fusion Printer**

(ID no. 11109345/SDS\_GEN\_EU/EN)

Date of print 14.07.2020

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

### 1.1. Product identifier

## **ULTRASINT® TPU01 for HP Jet Fusion Printer**

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

Recommended use: Polymer, for use with HP MultiJet Fusion™ process

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

Company:

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]

Dust can form an explosive mixture with air.

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

### **3.1. Substances**

Not applicable

### **3.2. Mixtures**

Chemical nature

Polymer based on: polyurethane, stabilizing agents, additives

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.

On skin contact:

Burns caused by molten material require hospital treatment.

On contact with eyes:

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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:

Immediately rinse mouth and then drink 200 - 300 ml 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 hazards anticipated.

#### **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, dry powder, carbon dioxide, foam

Unsuitable extinguishing media for safety reasons:

water jet

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

carbon monoxide, Carbon dioxide, hydrogen cyanide, nitrogen oxides, isocyanate

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

#### **5.3. 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.

Dust can form an explosive mixture with air.

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### **SECTION 6: Accidental Release Measures**

High risk of slipping due to leakage/spillage of product. Dust can form an explosive mixture with air.

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

No special precautions necessary.

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## **6.2. Environmental precautions**

No special precautions necessary.

## **6.3. Methods and material for containment and cleaning up**

For small amounts: Sweep/shovel up.

For large amounts: Sweep/shovel up.

Avoid raising dust. Use spark-proof tools and explosion-proof equipment.

## **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**

Provide suitable exhaust ventilation at the drying process and in the area surrounding the melt outlet of processing machines.

Protection against fire and explosion:

No special precautions necessary. Avoid whirling up the material/product because of the danger of dust explosion.

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

Segregate from foods and animal feeds.

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

Further information on storage conditions: Keep container tightly closed. Protect against moisture.

### **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**

### **8.2. Exposure controls**

#### Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

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Hand protection:

Chemical resistant protective gloves (EN 374)

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

Wearing of closed work clothing is recommended. Avoid inhalation of dusts. When using, do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied.

## **SECTION 9: Physical and Chemical Properties**

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

Form:	powder	
Colour:	grey	
Odour:	odourless	
Odour threshold:	not applicable	
pH value:	not applicable	
softening temperature:	> 120 °C	
boiling temperature:	not applicable	
Flash point:	not applicable, the product is a solid	
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	
Flammability:	Not a flammable solid according to UN transport regulations division 4.1 and GHS chapter 2.7.	(UN Test N.1 (ready combustible solids))
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	

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Density: approx. 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: Temperature: > 248 °C  
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:

Explosion hazard: not applicable, the product is a solid  
Product is not explosive, however a dust explosion could result from an air / dust mixture.

Fire promoting properties: not fire-propagating

## 9.2. Other information

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

Minimum ignition energy: < 30 mJ (DIN EN 13821)  
(1,000 hPa, 20 - 24 °C)  
Inductivity: 1 mH  
Grain size distribution: 0.2 - 350 µm  
The product is capable of dust explosion.

Bulk density: 400 - 600 kg/m<sup>3</sup>  
(20 °C)

Grain size distribution 77.27 µm (D50, Volumetric Distribution, other (measured))

particles 77.27 µm  
particles 47.07 µm  
165.9 µm (D90, Volumetric Distribution, other (measured))

particles 165.9 µm  
particles 81.55 µm

Other Information:

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

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## SECTION 10: Stability and Reactivity

### 10.1. Reactivity

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

### 10.2. Chemical stability

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

### 10.3. Possibility of hazardous reactions

Dust explosion hazard.

### 10.4. Conditions to avoid

Avoid all sources of ignition: heat, sparks, open flame. Avoid dust formation. Avoid impact, friction and electrostatic loading.

### 10.5. Incompatible materials

Substances to avoid:

No substances known that should be avoided.

### 10.6. Hazardous decomposition products

Possible thermal decomposition products:  
carbon monoxide, Carbon dioxide, hydrogen cyanide  
isocyanates, nitrogen oxides

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## SECTION 11: Toxicological Information

### 11.1. Information on toxicological effects

#### Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation. Virtually nontoxic after a single ingestion.

#### Irritation

Assessment of irritating effects:

Not irritating to the eyes. Not irritating to the skin. The product has not been tested. The statement has been derived from the properties of the individual components.

#### Respiratory/Skin sensitization

Assessment of sensitization:

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The chemical structure does not suggest a sensitizing effect. The product has not been tested. The statement has been derived from the properties of the individual components.

#### 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 the available information there is no specific target organ toxicity to be expected after a single exposure.

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

##### Assessment of repeated dose toxicity:

Repeated dermal uptake of the substance did not cause substance-related effects. Repeated inhalative uptake of the substance did not cause substance-related effects. Repeated oral uptake of the substance did not cause substance-related effects. The product has not been tested. The statement has been derived from the properties of the individual components.

#### Aspiration hazard

No aspiration hazard expected.



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#### 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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## **SECTION 12: Ecological Information**

### **12.1. Toxicity**

Assessment of aquatic toxicity:

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):

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

Elimination information:

Poorly biodegradable.

### **12.3. Bioaccumulative potential**

Assessment bioaccumulation potential:

Does not significantly accumulate in organisms.

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

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

Assessment transport between environmental compartments:

Adsorption in soil: Adsorption to solid soil phase is not expected. The product has not been tested. The statement has been derived from the properties of the individual components.

### **12.5. 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.

### **12.6. 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.

### **12.7. Additional information**

Adsorbable organically-bound halogen (AOX):

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This product contains no organically-bound halogen.

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## SECTION 13: Disposal Considerations

### 13.1. Waste treatment methods

Observe national and local legal requirements.

Do not discharge into drains/surface waters/groundwater.

Waste key:

07 02 13 waste plastic

Contaminated packaging:

Packs must be completely emptied.

Completely emptied packagings can be given for recycling.

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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

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

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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
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.

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### **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**

If it is intended to use materials for the manufacture of consumer goods (e. g. products which will come into contact with foodstuffs or with the skin, toys) or medical products, national and international regulations have to be observed. Where no regulations exist, consumer goods or medical products must at least comply with European legislation. We recommend contacting our Sales and our Product Safety departments.

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

Chemical Safety Assessment not yet performed due to registration timelines. Exposure scenarios for the mixture can not be provided at the moment because exposure scenarios are not yet available for all relevant substances due to registration timelines. For advice on essential measures see sections 7 and 8 of this safety data sheet.

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## **SECTION 16: Other Information**

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

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