

# Safety Data Sheet

## ULTRASINT™ TPU01 for HP Jet Fusion Printer

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(908411/SDS\_GEN\_US/EN)

### 1. Identification

#### Product identifier used on the label

## ULTRASINT™ TPU01 for HP Jet Fusion Printer

#### Recommended use of the chemical and restriction on use

Recommended use\*: Polymer; for use with HP MultiJet Fusion™ process

Suitable for use in industrial sector: plastics processing industry

\* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

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

##### Company:

BASF 3D Printing Solutions  
100 Park Avenue  
Florham Park, NJ 07932, USA

Telephone: +49 621 60-0

E-mail address: sales@basf-3dps.com

#### Emergency telephone number

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

#### Other means of identification

Chemical family: Polymer based on: polyurethane, stabilizing agents, additives

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### 2. Hazards Identification

**According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200**

#### Classification of the product

Combustible Dust

Combustible Dust (1)

Combustible Dust

#### Label elements

Signal Word:

Warning

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Hazard Statement:

May form combustible dust concentration in air.

### Hazards not otherwise classified

Dust can form an explosive mixture with air.

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## 3. Composition / Information on Ingredients

### According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Under the referenced regulation, this product does not contain any components classified for health hazards above the relevant cut off value.

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## 4. First-Aid Measures

### Description of first aid measures

#### General advice:

Remove contaminated clothing.

#### If inhaled:

Remove the affected individual into fresh air and keep the person calm.

#### If on skin:

Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention. Skin contact with hot molten substance/product may cause thermal burns.

#### If in 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.

#### If swallowed:

Immediately rinse mouth and then drink 200 - 300 ml water, do not induce vomiting, seek medical attention.

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

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

Hazards: No hazards anticipated.

### Indication of any immediate medical attention and special treatment needed

#### Note to physician

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, dry powder, carbon dioxide, foam

Unsuitable extinguishing media for safety reasons:

water jet

#### Special hazards arising from the substance or mixture

Hazards during fire-fighting:

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.

#### Advice for fire-fighters

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

#### Further information:

In case of fire and/or explosion do not breathe fumes. Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

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### 6. Accidental release measures

Further accidental release measures:

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

Further 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

No special precautions necessary.

#### 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.

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### 7. Handling and Storage

#### Precautions for safe handling

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

Avoid dust formation. Take precautionary measures against static discharges.

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### 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. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids (2013 Edition) for safe handling. Avoid all sources of ignition: heat, sparks, open flame.

### 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: Avoid extreme heat. Avoid deposition of dust.

### Storage stability:

Protect against moisture.

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## 8. Exposure Controls/Personal Protection

No occupational exposure limits known.

### Advice on system design:

Provide local exhaust ventilation to control dust.

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

### Personal protective equipment

#### Respiratory protection:

When atmospheric levels may exceed the occupational exposure limit (PEL or TLV) NIOSH-certified air-purifying respirators equipped with an organic vapor sorbent and particulate filter can be used as long as appropriate precautions and change out schedules are in place. Wear appropriate certified respirator when exposure limits may be exceeded.

#### Hand protection:

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

#### Eye protection:

Tightly fitting safety goggles (chemical goggles).

Wear splash goggles to protect from hot molten substance/product.

#### 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).

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### General safety and hygiene measures:

Wear protective clothing to prevent contact during mechanical processing and/or hot melt conditions. Avoid inhalation of dust. Ventilation should be sufficient to maintain inhalation exposures below OSHA PEL for particulates. 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.

## 9. Physical and Chemical Properties

Form:	powder	
Odour:	odourless	
Odour threshold:	not applicable	
Colour:	grey	
pH value:	not applicable	
softening temperature:	> 120 °C	
boiling temperature:	not applicable	
Sublimation point:	No applicable information available.	
Flash point:	not applicable, the product is a solid	
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.	
Autoignition:	> 400 °C	
Vapour pressure:	not applicable	
Density:	approx. 1.2 g/cm <sup>3</sup> ( 20 °C)	
Relative density:	approx. 1.1 - 1.2 ( 20 °C)	
Bulk density:	400 - 600 kg/m <sup>3</sup> ( 20 °C)	
Vapour density:	not applicable	
Partitioning coefficient n-octanol/water (log Pow):	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:	not applicable, the product is a solid	
Viscosity, kinematic:	No applicable information available.	
Particle size:	D50 77.27 µm D90 165.9 µm	(measured) (measured)
Solubility in water:	insoluble	
Solubility (quantitative):	No applicable information available.	
Solubility (qualitative):	No applicable information available.	
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.	

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### 10. Stability and Reactivity

#### Reactivity

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

Oxidizing properties:

not fire-propagating

Minimum ignition energy:

< 30 mJ, 1,000 hPa, 20 - 24 °C, Inductivity: 1 mH, Grain size distribution: 0.2 - 350 µm (DIN EN 13821)

The product is capable of dust explosion.

#### Chemical stability

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

#### Possibility of hazardous reactions

Dust explosion hazard.

#### Conditions to avoid

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

#### Incompatible materials

No substances known that should be avoided.

#### Hazardous decomposition products

Decomposition products:

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

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.

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### 11. Toxicological information

#### Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

#### Acute Toxicity/Effects

##### Acute toxicity

Assessment of acute toxicity: Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation. Virtually nontoxic after a single ingestion.

##### Oral

No applicable information available.

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### Inhalation

No applicable information available.

### Dermal

No applicable information available.

### Assessment other acute effects

Assessment of STOT single:

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

### Aspiration Hazard

No aspiration hazard expected.

## **Chronic Toxicity/Effects**

### Repeated dose toxicity

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.

### Genetic toxicity

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.

### Teratogenicity

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.

### Other Information

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

## **Symptoms of Exposure**

Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

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## **12. Ecological Information**

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### Toxicity

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

Elimination information

Poorly biodegradable.

### 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.

### Mobility in soil

Assessment transport between environmental compartments

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.

### Additional information

Adsorbable organically-bound halogen (AOX):

This product contains no organically-bound halogen.

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## 13. Disposal considerations

### Waste disposal of substance:

Observe national and local legal requirements. Do not discharge into drains/surface waters/groundwater.

### Container disposal:

Dispose of in accordance with national, state and local regulations. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

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## 14. Transport Information

### Land transport

USDOT

Not classified as a dangerous good under transport regulations

### Sea transport

IMDG

Not classified as a dangerous good under transport regulations



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### Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

## 15. Regulatory Information

### Federal Regulations

#### Registration status:

Chemical TSCA, US released / listed

**EPCRA 311/312 (Hazard categories):** Refer to SDS section 2 for GHS hazard classes applicable for this product.

#### Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

**WARNING:** This product can expose you to chemicals including METHANOL, which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

#### NFPA Hazard codes:

Health: 1 Fire: 3 Reactivity: 0 Special:

#### HMIS III rating

Health: 1 Flammability: 3 Physical hazard: 0

## 16. Other Information

#### SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2019/11/14

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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

END OF DATA SHEET