

**Trade name:** EOS® TPU 1301**Product no.:** 200001027**Current version :** 1.3.0, issued: 15.03.2023**Replaced version:** 1.2.0, issued: 14.03.2023**Region:** GB**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Trade name

**EOS® TPU 1301****1.2 Relevant identified uses of the substance or mixture and uses advised against**

Relevant identified uses of the substance or mixture

Laser sintering

Uses advised against

No data available.

**1.3 Details of the supplier of the safety data sheet****Address**

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GERMANY

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**Information provided by / telephone**

+49 (0) 89 / 893 36 - 0

**Advice on Safety Data Sheet**

MSDSInfo@eos.info

**1.4 Emergency telephone number**

+49 (0) 89 / 893 36 - 0 (8 am - 5 pm)

+49 (0) 89 / 893 36 - 151 (Mo - Thu: 9 am - 12 pm &amp; 1 - 6 pm; Fr: 1 - 4 pm) (CET)

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification information**

This product does not meet the classification and labelling criteria given in the Regulation (EC) No 1272/2008 (CLP). According to the provisions of the CLP-Regulation (EC) No. 1272/2008, this product is not subject to mandatory labeling.

**2.2 Label elements**

Not relevant

**2.3 Other hazards**

This product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

PBT assessment

The components of this product are not considered to be a PBT.

vPvB assessment

The components of this product are not considered to be a vPvB.

**SECTION 3: Composition/information on ingredients****3.1 Substances**

Not applicable. The product is not a substance.

**3.2 Mixtures****Chemical characterization**

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Polymer based on: Polyurethane, stabilizer, additives

### **Hazardous ingredients**

This product does not contain substances to be mentioned according to EU Regulation No 1907/2006 (REACH), annex II.

## **SECTION 4: First aid measures**

### **4.1 Description of first aid measures**

#### **General information**

Remove contaminated clothing and shoes and launder thoroughly before reusing. In case of persisting adverse effects, consult a physician.

#### **After inhalation**

Ensure supply of fresh air.

#### **After skin contact**

When in contact with the skin, clean with soap and water. Burns caused by molten material must be treated clinically.

#### **After eye contact**

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes).

#### **After ingestion**

Rinse the mouth thoroughly with water. Do not induce vomiting. Never give anything by mouth to an unconscious person.

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

No data available.

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

No data available.

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

Water spray jet; Extinguishing powder; Carbon dioxide; Foam

#### **Unsuitable extinguishing media**

High power water jet

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

In the event of fire, the following can be released: Carbon monoxide and carbon dioxide; Hydrogen cyanide (HCN); Nitrogen oxides (NOx); isocyanates

### **5.3 Advice for firefighters**

Use self-contained breathing apparatus. Wear protective clothing. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

## **SECTION 6: Accidental release measures**

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

#### **For non-emergency personnel**

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Avoid dust formation. Keep away from ignition sources.

#### **For emergency responders**

Personal protective equipment (PPE) - see section 8.

### **6.2 Environmental precautions**

Do not discharge into the drains/surface waters/groundwater.

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

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Collect mechanically. When collected, handle material as described under the section heading "Disposal considerations". Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Use non-sparking tools.

## 6.4 Reference to other sections

Information regarding safe handling, see section 7. Information regarding personal protective measures, see section 8. Information regarding waste disposal, see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Advice on safe handling

Provide suitable exhaust ventilation at processing machines. Avoid the formation and deposition of dust.

#### General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Do not inhale dust.

#### Advice on protection against fire and explosion

Dust can form an explosive mixture with air. Take precautionary measures against static charges. Use explosion-proof equipment/fittings and non-sparking tools. Avoid deposition of dust. Dust can form an explosive mixture with air. Use explosion-proof equipment/fittings and non-sparking tools. Keep away from open flames, hot surfaces and other ignition sources. Protect against electrostatic charges.

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

#### Technical measures and storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place.

#### Requirements for storage rooms and vessels

Containers which are opened must be carefully resealed and kept upright to prevent leakage. Always keep in containers of same material as the original.

#### Incompatible products

Substances to be avoided, see section 10.

### 7.3 Specific end use(s)

No data available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

No parameters available for monitoring.

### 8.2 Exposure controls

#### Appropriate engineering controls

Ensure adequate ventilation, local exhaust at the work station if necessary. To avoid the accumulation of loose dust, a closed system, local exhaust ventilation, or other control equipment for the collection of dust should be used. Ensure that all dust control equipment incorporates explosion-relief or-minimisation systems.

#### Personal protective equipment

##### Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of dust formation, take appropriate measures for breathing protection in the event that workplace threshold values are not specified.

Respirator EN143, EN 149  
Respiratory filter (part): P1, FFP 1

##### Eye / face protection

Safety glasses with side protection shield (EN 166)

##### Hand protection

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Unless otherwise indicated in the chemical risk assessment, following recommendations are made: In case of intensive contact, wear protective gloves (EN 374). Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves. In case of thermal processing, thermally insulating protective gloves are to be used.

**Other**

Wear fully closed, flame retardant clothing. Closed ESD safety footwear (ESD according to EN 61340-4-3 or equivalent).

**Environmental exposure controls**

No data available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>State of aggregation</b>	
solid	
<b>Form</b>	
Powder	
<b>Colour</b>	
white	
<b>Odour</b>	
odourless	
<b>pH value</b>	
No data available	
<b>Boiling point / boiling range</b>	
No data available	
<b>Melting point/freezing point</b>	
No data available	
<b>Softening point / softening temperature</b>	
Value	> 120 °C
Source	supplier
<b>Decomposition temperature</b>	
Value	> 230 °C
Source	supplier
<b>Flash point</b>	
No data available	
<b>Ignition temperature</b>	
Value	> 400 °C
Source	supplier
<b>Explosive properties</b>	
Product is explosive.	
<b>Flammability</b>	
No data available	
<b>Lower explosion limit</b>	
Value	60 g/m <sup>3</sup>
<b>Upper explosion limit</b>	
No data available	
<b>Vapour pressure</b>	

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No data available

**Relative vapour density**

No data available

**Relative density**

Value	appr. 1.1 - 1.2		
Reference temperature		20	°C
Source	supplier		

**Density**

Value	appr.	1.2	g/cm <sup>3</sup>
Reference temperature		20	°C
Source	supplier		

**Bulk density**

Value	400 - 600	kg/m <sup>3</sup>
Reference temperature	20	°C
Source	supplier	

**Solubility in water**

Source	supplier
Comments	insoluble

**Solubility**

No data available

**Partition coefficient n-octanol/water (log value)**

No data available

**Kinematic viscosity**

No data available

**Particle characteristics**

Particledistribution:

77,27 µm (D50, volumedistribution, measured)	50 %
Particle 77,27 µm	50 %
Particle 47,07 µm	50 %
165,9 µm (D90, volumedistribution, measured)	90 %
Particle 165,9 µm	90 %
Particle 81,55 µm	90 %

**9.2 Other information****Other information**

Minimum ignition energy with inductance: 100 mJ &lt; MZE &lt; 300 mJ

**SECTION 10: Stability and reactivity****10.1 Reactivity**

no corrosive behaviour to metals

**10.2 Chemical stability**

Stable under recommended storage and handling conditions (See section 7).

**10.3 Possibility of hazardous reactions**

Danger of dust explosion.

**10.4 Conditions to avoid**

Heat, naked flames and other ignition sources. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

**10.5 Incompatible materials**

None known.

**10.6 Hazardous decomposition products**

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&gt;230 °C; nitrogen dioxide; Carbon monoxide and carbon dioxide; Isocyanates; Hydrogen cyanide (HCN)

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

<b>Acute oral toxicity</b>
No data available
<b>Acute dermal toxicity</b>
No data available
<b>Acute inhalational toxicity</b>
No data available
<b>Skin corrosion/irritation</b>
No data available
<b>Serious eye damage/irritation</b>
No data available
<b>Respiratory or skin sensitisation</b>
No data available
<b>Germ cell mutagenicity</b>
No data available
<b>Reproduction toxicity</b>
No data available
<b>Carcinogenicity</b>
No data available
<b>STOT - single exposure</b>
No data available
<b>STOT - repeated exposure</b>
No data available
<b>Aspiration hazard</b>
No data available

### 11.2 Information on other hazards

#### Endocrine disrupting properties

Pursuant to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605, the product does not contain any endocrine disruptors in a concentration of 0.1% weight by weight and above.

#### Other information

No data available.

## SECTION 12: Ecological information

### 12.1 Toxicity

<b>Toxicity to fish (acute)</b>
No data available
<b>Toxicity to fish (chronic)</b>
No data available
<b>Toxicity to Daphnia (acute)</b>
No data available
<b>Toxicity to Daphnia (chronic)</b>
No data available
<b>Toxicity to algae (acute)</b>

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No data available

**Toxicity to algae (chronic)**

No data available

**Bacteria toxicity**

No data available

**12.2 Persistence and degradability**

No data available.

**12.3 Bioaccumulative potential**

No data available.

**12.4 Mobility in soil**

No data available.

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

PBT assessment

The components of this product are not considered to be a PBT.

vPvB assessment

The components of this product are not considered to be a vPvB.

**12.6 Endocrine disrupting properties****Endocrine disrupting properties**

Pursuant to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605, the product does not contain any endocrine disruptors in a concentration of 0.1% weight by weight and above.

**12.7 Other adverse effects**

No data available.

**12.8 Other information****Other information**

Do not discharge product unmonitored into the environment.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

Disposal of the product should be carried out in accordance with all applicable regulations following consultation with the responsible local authority and the disposal company in an authorised and suitable disposal facility.

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

**Packaging**

Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

**SECTION 14: Transport information****14.1 Transport ADR/RID/ADN**

The product is not subject to ADR/RID/ADN regulations.

**14.2 Transport IMDG**

The product is not subject to IMDG regulations.

**14.3 Transport ICAO-TI / IATA**

The product is not subject to ICAO-TI / IATA regulations.

**14.4 Other information**

No data available.

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**14.5 Environmental hazards**

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

**14.6 Special precautions for user**

No data available.

**14.7 Maritime transport in bulk according to IMO instruments**

Not relevant

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations****Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

**REACH candidate list of substances of very high concern (SVHC) for authorisation**

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

**Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances subject to restriction as listed in Annex XVII of the REACH regulation (EC) 1907/2006.

**Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances**

This product is not subject to Part 1 or 2 of Annex I.

**Other regulations**

Adhere to the national sanitary and occupational safety regulations when using this product.

**15.2 Chemical safety assessment**

A chemical safety assessment has not been carried out for this mixture.

**SECTION 16: Other information****Sources of key data used to compile the data sheet:**

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

**Creation of the safety data sheet**

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This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.

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