



# Material Safety Data Sheet

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## 1. Identification of the substance/mixture and of the company/undertaking

<b>Product:</b>	PLA for extrusion-based 3D printing
<b>Manufacturer:</b>	Conrad Electronic SE
<b>Address:</b>	Klaus-Conrad-Str. 1, D-92240 Hirschau
<b>Telephone:</b>	+49 (0) 9604 / 40 - 8988
<b>Date:</b>	18.06.2019

## 2. Hazards Identification

### 2.1 Classification of the substance of mixture

#### 2.1.1 Classification:

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

#### Regulation (EC) No 1272/2008:

Hazard classes/Hazard categories	Hazard codes
N/A	N/A

### 2.2 label elements

Hazard Pictograms: No hazard pictogram is used.

Signal Word(S): No signal word is used.

Hazard Statement: Not applicable.

Precautionary statement: Not applicable.

### 2.3 Other hazards

Not available.

## 3. Composition/information on ingredients

### Substance/Mixture:

Mixture

### Ingredient(s):

This product does not contain hazardous ingredients above cut-off value according to Regulation (EC) 1272/2008.



## **4. First aid measures**

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

In all cases of doubt, or when symptoms persist, seek medical attention.

#### **4.1.1 In case of inhalation**

Remove to fresh air. Get medical attention for any breathing difficulty.

#### **4.1.2 In case of skin contact**

Wash off with soap and plenty of water.

#### **4.1.3 In case of eyes contact**

Immediately flush eyes with plenty of water, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

#### **4.1.4 In case of ingestion**

If large amounts were swallowed, get medical advice.

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

The product is not classified as harmful to human health effect.

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

Symptomatic treatment.

## **5. Firefighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media:**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### **Unsuitable extinguishing media:**

Not available.

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

No specific fire or explosion hazard.

### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus for fire fighting if necessary.



## **6. Accidental release measures**

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

#### **6.1.1 For non-emergency personnel:**

Avoid dust formation.

#### **6.1.2 For emergency responders:**

Wear an appropriate NIOSH/MSHA approved respirator if dust is generated.

### **6.2 Environmental Precautions**

Do not let large amount of product enter drains.

### **6.3 Methods and material for Containment and Cleaning up**

Sweep up and shovel. Keep in suitable, closed and properly labelled containers for disposal.

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

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

## **7. Handling and storage**

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

#### **7.1.1 Protective measures:**

Provide appropriate exhaust ventilation at places where dust is formed.

#### **7.1.2 Advice on general occupational hygiene:**

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

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

Keep container closed in a cool, dry place.

### **7.3 Specific end use(s)**

Not available.



## **8. Exposure Controls/Personal Protection**

### **8.1 Control parameters**

#### **8.1.1 Occupational exposure limits:**

Not available.

#### **8.1.2 Additional exposure limits under the conditions of use:**

Not available.

#### **8.1.3 DNEL/DMEL and PNEC-Values:**

Not available.

### **8.2 Exposure controls**

#### **8.2.1 Appropriate engineering controls:**

Use adequate ventilation to keep airborne concentrations low.

#### **8.2.2 Individual protection measures, such as personal protective equipment:**

Eye/face protection: Safety goggles.

Hand protection: Wear protective gloves.

Body protection: Wear protective clothing.

Respiratory protection: Use with adequate ventilation. In case of insufficient local exhaust ventilation, wear protective mask.

Thermal hazards: Wear suitable protective clothing to prevent heat.

#### **8.2.3 Environmental exposure controls:**

Avoid discharge into the environment. Dispose of rinse water in accordance with local and national regulations



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### 9. Physical and chemical properties

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

Appearance:	Solid
Colour:	Milky white translucent
Odour:	Not available
Odour threshold:	Not available
pH:	Not available
Melting point/range (°C):	Not available
Boiling point/range (°C):	Not available
Flash point (°C):	Not available
Evaporation rate:	Not available
Flammability limit - lower (%):	Not available
Flammability (solid, gas):	Not available
Ignition temperature (°C):	Not available
Upper/lower explosive limits:	Not available
Vapour pressure (20°C):	Not available
Vapour density:	Not available
Relative Density:	1.23
Bulk density (kg/m <sup>3</sup> ):	Not available
Water solubility (g/l):	Insoluble
n-Octanol/Water (log Po/w):	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity, dynamic (mPa.s):	Not available
Explosive properties:	Not available
Oxidising properties:	Not available

#### 9.2. Other information:

Fat solubility(solvent– oil to be specified) etc:	Not available
Surface tension:	Not available
Dissociation constant in water( pKa):	Not available
Oxidation-reduction Potential:	Not available



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### 10. Stability and reactivity

#### 10.1 Reactivity

The substance is stable under normal storage and handling conditions.

#### 10.2 Chemical stability

Stable at room temperature in closed containers under normal storage and handling conditions.

#### 10.3 Possibility of hazardous reactions

No dangerous reactions known.

#### 10.4 Conditions to avoid

Incompatible materials.

#### 10.5 Incompatible materials

Strong oxidizing agents.

#### 10.6 Hazardous decomposition products

Carbon oxides.

### 11. Toxicological information

#### 11.1 Information on toxicological effects

##### **Acute toxicity:**

ATEmix(oral):	Not available
ATEmix(Dermal):	Not available
ATEmix(inhalation):	Not available
LD50(Oral, Rat):	Not available
LD50(Dermal, Rabbit):	Not available
LC50(Inhalation, Rat):	Not available
Skin corrosion/Irritation:	Not classified
Serious eye damage/irritation:	Not classified
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT- single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified



## **12. Ecological information**

### **12.1 Toxicity**

#### **Acute (short-term) toxicity:**

LC50(96h, Fish): Not available

LC50(48h, Crustacea): Not available

EC50(72h, Algae/aquatic plants): Not available

#### **Chronic (long-term) toxicity:**

NOEC(Fish): Not available

NOEC(Crustacea): Not available

EC50(Algae/aquatic plants): Not available

### **12.2 Persistence and degradability**

Not available.

### **12.3 Bioaccumulative potential**

Not available.

### **12.4 Mobility in soil**

Not available.

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

Not available.

### **12.6 Other adverse effects**

Not available.



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### 13. Disposal considerations

#### 13.1 Waste treatment methods

The material should be disposed of by incineration in a chemical incinerator in compliance with national and regional requirements.

### 14. Transport information

	Land transport (ADR/RID)	Inland waterways (ADN)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN number	Not regulated	Not regulated	Not regulated	Not regulated
UN Proper shipping name	Not regulated	Not regulated	Not regulated	Not regulated
Transport hazard Class(es)	Not regulated	Not regulated	Not regulated	Not regulated
Packing group	Not regulated	Not regulated	Not regulated	Not regulated
Environmental hazards	No	No	No	No
Special precautions for user	See section 2.2	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of Marpol and the IBC Code	Not regulated	Not regulated	Not regulated	Not regulated

### 15. Regulatory information

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

##### Relevant information regarding authorization:

Not applicable.

##### Relevant information regarding restriction:

Not applicable.

##### Other EU regulations:

Employment restrictions concerning young person must be observed.

For use only by technically qualified individuals.

##### Other National regulations:

Not applicable

#### 15.2 Chemical safety assessment

No.





## **16. Other information**

### **16.1 Indication of changes**

Version 1.0 Amended by (EU) 2015/830

### **16.2 Abbreviations and acronyms**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation for rail International transportation of Dangerous goods

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: Code international maritime dangerous goods code

ICAO-TI: International Civil Aviation Organization The International Civil Aviation Covenant

IATA: International Air Transport Association

LC50: median lethal concentration

EC50: The effective concentration of substance that causes 50% of the maximum response.

NOEC: No Observed Effect Concentration

DNEL: derived no-effect level

PNEC: predicted no-effect concentration

### **16.3 Key literature references and sources for data**

ECHA Registered substances data

### **16.4 Training instructions**

Not applicable.

### **16.5 Further information**

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

### **16.6 Notice to reader**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.