

**Safety Data Sheet**  
According to Regulation (EC) No 1907/2006, Annex II,  
Amended by COMMISSION REGULATION (EU) 2015/830,  
According to REGULATION (EC) No 1272/2008

PolySupport™

Version 1.0

Issue date: 12-07-2019

Revision date: 12-07-2019

SDS Record Number: CSSS-TCO-010-131607

**Section 1 Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifier:**

Identification on the label/Trade name: PolySupport™  
 Additional identification: Not available  
 Identification of the product: See section 3  
 Index Number: See section 3  
 REACH registration No.: See section 3

**1.2 Relevant identified uses of the substance or mixture and uses advised against:**

**1.2.1 Identified uses:**

3D Printing Filament.

**1.2.2 Uses advised against:**

Not available.

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

Supplier(Only representative): -  
 Supplier(Manufacturer): JF Polymers (Suzhou) Co., Ltd.  
 Address: Building 6&7&11, No.2, Hai Cheng Road, Chang Shu Economic & Technological Development Zone, 215513, People's Republic of China  
 Contact person(E-mail): zhenggang.cai@polymaker.com  
 Telephone: 0086-512-52058005  
 Fax: -

**1.4 Emergency telephone Number:**

0086-512-52058005 Only available during office hours (9:00a.m.-17:30p.m. Beijing Time Zone)

Available outside office hours? YES  NO

**Section 2 Hazards Identification**

**2.1 Classification of the substance or mixture:**

**2.1.1 Classification:**

The mixture is classified as following according to REGULATION (EC) No 1272/2008:

| REGULATION (EC) No 1272/2008     |                  |
|----------------------------------|------------------|
| Hazard classes/Hazard categories | Hazard statement |
| Skin Irrit. 2                    | H315             |
| Skin Sens. 1                     | H317             |
| Eye Irrit. 2                     | H319             |
| Acute Tox. 4                     | H332             |
| Resp. Sens. 1                    | H334             |
| STOT SE 3                        | H335             |
| STOT RE 2                        | H373             |

For full text of H- phrases: see section 2.2.

## 2.2 label elements:

### Hazard Pictograms:



### Signal Word(S):

Danger

### Hazard Statement:

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335: May cause respiratory irritation.

H373: May cause damage to organs through prolonged or repeated exposure

### Precautionary statement:

P261: Avoid breathing dust/fume/ gas/mist/vapours/spray.

P264: Wash hands thoroughly after handling.

P271: Use only outdoors or in a well-ventilated area.

P272: Contaminated work clothing should not be allowed out of the workplace.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P284: [In case of inadequate ventilation] Wear Respiratory Protection.

P302 + P352: IF ON SKIN: Wash with plenty of water.

P304 + P340: If inhaled: remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P313: Get medical advice/ attention if you feel unwell.

P332 + P313: If skin irritation occurs: Get medical advice/attention.

P337 + P313: If eye irritation persists: Get medical advice/attention.

P342 + P311: If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

P362 + P364: Take off contaminated clothing and wash it before reuse.

P403 + P233: Store in a well-ventilated place. keep container tightly closed.

P405: Store locked up.

P501: Dispose of contents/container in accordance with local regulation.

## 2.3 Other hazards:

Not applicable.

## Section 3 Composition/information on ingredients

### Substance/Mixture:

Mixture

### Ingredient(s):

| Chemical Name | Registration No. | CAS No.    | EC No. | Concentration | Classification                        |
|---------------|------------------|------------|--------|---------------|---------------------------------------|
| Polyurethane  | N/A              | 27083-55-2 | N/A    | >50%          | H315 H317 H319 H332 H334<br>H335 H373 |

## Section 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:

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Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water. Keep warm and in a quiet place. Call a physician or poison control center immediately. Wash contaminated clothing before re-use.

#### 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:

Call a physician or poison control centre immediately. Take victim immediately to hospital. If swallowed, rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Artificial respiration and/or oxygen may be necessary.

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

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure

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

If skin irritation or rash occurs, get medical advice/attention.

### Section 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:** Water with full jet.

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

In case of fire, the following can be released: Carbon oxides, nitrogen oxides.

#### 5.3 Advice for firefighters:

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Wear chemical resistant oversuit. Cool containers / tanks with water spray.

### Section 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 into suitable containers for disposal. Avoid dust formation. Keep in properly labelled containers. Keep in suitable, closed 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.

### Section 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:

Store in original container. Keep in a well-ventilated place. Keep in a dry place. Keep in properly labelled containers. Keep container closed. Avoid dust formation. Keep away from incompatible products.

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

Not applicable.

## Section 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: Ensure adequate ventilation. Apply technical measures to comply with the occupational exposure limits.

#### 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.  
According to local regulations, Federal and official regulations.

## Section 9 Physical and chemical properties

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

|                                    |                    |
|------------------------------------|--------------------|
| Appearance:                        | Solid              |
| Colour:                            | Milky white        |
| Odour:                             | Not available      |
| Odour threshold:                   | Not available      |
| pH:                                | Not available      |
| Melting point/range (°C):          | 190°C              |
| 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:                  | 1.20               |
| Bulk density (kg/m <sup>3</sup> ): | Not available      |
| Water solubility (g/l):            | Insoluble in water |
| 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:

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

## Section 10 Stability and reactivity

|   |  |
|---|--|
| <b>10.1 Reactivity:</b>                         | The substance is stable under normal storage and handling conditions.                                    |
| <b>10.2 Chemical stability:</b>                 | Stable at room temperature in closed containers under normal storage and handling conditions.            |
| <b>10.3 Possibility of hazardous reactions:</b> | No dangerous reactions known.  |
| <b>10.4 Conditions to avoid:</b>                | Incompatible materials. Keep away from direct sunlight. To avoid thermal decomposition, do not overheat. |
| <b>10.5 Incompatible materials:</b>             | Strong oxidizing agents.   |
| <b>10.6 Hazardous decomposition products:</b>   | Carbon oxides, nitrogen oxides.  |

## Section 11 Toxicological information

|   |   |
|---|---|
| <b>11.1 Information on toxicological effects:</b> |   |
| <b>Acute toxicity:</b>                            |   |
| <b>ATE<sub>mix</sub>(oral):</b>                   | Not available   |
| <b>ATE<sub>mix</sub>(inhalation):</b>             | Not available   |
| <b>ATE<sub>mix</sub>(Dermal):</b>                 | Not available   |
| <b>LD50(Oral, Rat):</b>                           | Not available   |
| <b>LC50(Inhalation, Rat):</b>                     | Not available   |
| <b>LD50(Dermal, Rabbit):</b>                      | Not available   |
| <b>Skin corrosion/Irritation:</b>                 | Causes skin irritation.   |
| <b>Serious eye damage/irritation:</b>             | Causes serious eye irritation.  |
| <b>Respiratory or skin sensitization:</b>         | May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| <b>Germ cell mutagenicity:</b>                    | Not classified  |
| <b>Carcinogenicity:</b>                           | Not classified  |
| <b>Reproductive toxicity:</b>                     | Not classified  |
| <b>STOT- single exposure:</b>                     | May cause respiratory irritation.   |
| <b>STOT-repeated exposure:</b>                    | May cause damage to organs through prolonged or repeated exposure   |
| <b>Aspiration hazard:</b>                         | Not classified  |

## Section 12 Ecological information

|   |                |
|---|----------------|
| <b>12.1 Toxicity:</b>                   |                |
| <b>Acute (short-term) toxicity:</b>     |                |
| <b>LC50(96h, Fish):</b>                 | Not available. |
| <b>LC50(48h, Crustacea):</b>            | Not available. |
| <b>EC50(72h, Algae/aquatic plants):</b> | Not available. |
| <b>Chronic (long-term) toxicity:</b>    |                |
| <b>NOEC(Fish):</b>                      | Not available. |
| <b>NOEC(Crustacea):</b>                 | Not available. |
| <b>EC50(Algae/aquatic plants):</b>      | Not available. |

|   |                |
|---|----------------|
| <b>12.2 Persistence and degradability:</b>      | Not available. |
| <b>12.3 Bioaccumulative potential:</b>          | Not available. |
| <b>12.4 Mobility in soil:</b>                   | Not available. |
| <b>12.5 Results of PBT and vPvB assessment:</b> | Not applicable |
| <b>12.6 Other adverse effects:</b>              | Not available. |

### Section 13 Disposal considerations

|                                      |  |
|--------------------------------------|--|
| <b>13.1 Waste treatment methods:</b> | Dispose of in accordance with all applicable local and national regulations. Use recovery/recycling where feasible, otherwise incineration is the recommended method of disposal. Empty containers may contain hazardous residues. Do not cut, puncture or weld on or near to the container. Labels should not be removed from containers until they have been cleaned. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers. |
|--------------------------------------|--|

### Section 14 Transport information

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

### Section 15 Regulatory information

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

|  |   |
|--|---|
| <b>Relevant information regarding authorization:</b> | Not applicable.   |
| <b>Relevant information regarding restriction:</b>   | Not applicable.   |
| <b>Other EU regulations:</b>                         | Employment restrictions concerning young person must be observed.<br>For use only by technically qualified individuals. |
| <b>Other National regulations:</b>                   | Not applicable  |

**15.2 Chemical safety assessment** YES  NO

### Section 16 Other information

#### 16.1 Indication of changes:

Version 1.0 Amended by (EU) 2015/830

#### 16.2 Abbreviations and acronyms:

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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: International Civil Aviation Organization  
 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 Classification and procedure used to derive the classification for mixtures according to Regulation (EC)**

**1272/2008 [CLP]**

| Classification according to Regulation (EC) No. 1272/2008 |      | Classification procedure |
|---|------|--------------------------|
| Skin Irrit. 2   | H315 | Calculation method       |
| Skin Sens. 1  | H317 | Calculation method       |
| Eye Irrit. 2  | H319 | Calculation method       |
| Acute Tox. 4  | H332 | Calculation method       |
| Resp. Sens. 1   | H334 | Calculation method       |
| STOT SE 3   | H335 | Calculation method       |
| STOT RE 2   | H373 | Calculation method       |

**16.5 Relevant H-statements (number and full text):**

H315: Causes skin irritation.  
 H317: May cause an allergic skin reaction.  
 H319: Causes serious eye irritation.  
 H332: Harmful if inhaled.  
 H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 H335: May cause respiratory irritation.  
 H373: May cause damage to organs through prolonged or repeated exposure

**16.6 Training instructions:**

Not applicable.

**16.7 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.

**16.8 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.

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