

Version 1.0

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SDS record number: CSSS-TCO-010-132244

## 1. Product and Company Identification

<b>Material name</b>	PolyFlex™ TPU90
<b>CAS #</b>	See section 3
<b>Product code</b>	-
<b>Product use</b>	3D Printing Filament
<b>Manufacturer/Supplier</b>	
<b>Supplier(Manufacturer):</b>	JF Polymers (Suzhou) Co., Ltd.
<b>Address:</b>	Building 6&7&11, No.2, Hai Cheng Road, Chang Shu Economic & Technological Development Zone, 215513, People's Republic of China
<b>Contact person(E-mail):</b>	zhenggang.cai@polymaker.com
<b>Telephone:</b>	+86-512-52058005
<b>Fax:</b>	-
<b>Emergency telephone Number:</b>	+86-512-52058005

## 2. Hazards identification

### GHS classification

<b>Physical hazards</b>	Not classified
<b>Health hazards</b>	Not classified
<b>Environmental hazards</b>	Not classified

### GHS label elements

<b>Hazard Pictograms</b>	No hazard pictogram is used.
<b>Signal word</b>	No signal word is used.
<b>Hazard statement</b>	Not applicable.

### Precautionary statement

<b>Prevention</b>	Not applicable.
<b>Response</b>	Not applicable.
<b>Storage</b>	Not applicable.
<b>Disposal</b>	Not applicable.
<b>Other hazards</b>	Not available.

## 3. Composition / Information on Ingredients

This product does not contain hazardous ingredients above cut-off value according to HCS2012.

## 4. First Aid Measures

### First aid procedures

<b>Eye contact</b>	None expected to require first aid measures. Flush with running water for at least 15 minutes. If irritation persists get medical attention.
<b>Skin contact</b>	None expected to require first aid measures. Wash thoroughly with soap and water. Get medical attention in the unlikely event that irritation persists.
<b>Inhalation</b>	None expected to require first aid measures. If breathed in, remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical attention.
<b>Ingestion</b>	Immediate first aid is not likely to be required. A physician or poison control center can be contacted for advice.

Notes to physician	Treat symptoms.
<b>5. Fire Fighting Measure</b>	
Flammable properties	Not available.
Extinguishing media	
Suitable extinguishing media	Use extinguishers suitable for surrounding fire.
Unsuitable extinguishing media	Not available.
Firefighting equipment/instructions	Wear self contained breathing apparatus for fire fighting if necessary.
Hazardous combustion products	Carbon oxides.
<b>6. Accidental Release Measures</b>	
Personal precautions	Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental precautions	Avoid disposing into drainage/sewer system or directly into the aquatic environment.
Methods for cleaning up	Sweep up and shovel into suitable containers. Clean up affected area.
<b>7. Handling and Storage</b>	
Handling	Ensure good ventilation/exhaustion at the workplace. Wash thoroughly after handling.
Storage	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
<b>8. Exposure Controls / Personal Protection</b>	
Occupational exposure limits	This product has no PEL, TLV, or other recommended exposure limit.
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls:	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
<b>Individual protection measures, such as personal protective equipment:</b>	
Eye / face protection	No special protection required.
Skin protection	No special protection required.
Respiratory protection	No special protection required.
General hygiene considerations	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.
<b>9. Physical &amp; Chemical Properties</b>	
<b>Appearance</b>	
Physical state	Solid
Form	Solid
Color	Translucent
Odor	Odorless
Odor threshold	Not available
pH	Not available
Vapor pressure	Not available
Vapor density	Not available
Boiling point	Not available
Melting point/Freezing point	Not available
Solubility (water)	Insoluble

<b>Relative Density</b>	1.18-1.23
<b>Flash point</b>	Not available
<b>Partition coefficient</b>	Not available
<b>Flammability limits in air, upper, %by volume</b>	Not available
<b>Flammability limits in air, lower, % by volume</b>	Not available
<b>Auto-ignition temperature</b>	Not available
<b>VOC</b>	Not available
<b>Percent volatile</b>	Not available
<b>Molecular Formula</b>	Not available
<b>Molecular Weight</b>	Not available
<b>Other data</b>	
<b>Viscosity</b>	Not available
<b>Dissociation constant</b>	Not available

## 10. Chemical Stability & Reactivity Information

<b>Reactivity</b>	The substance is stable under normal storage and handling conditions.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Conditions to avoid</b>	Incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	Carbon oxides.
<b>Possibility of hazardous reactions</b>	No hazardous reactions known.

## 11. Toxicological Information

### Toxicokinetics, metabolism and distribution:

**Non-human toxicological data:** Not available

### Information on toxicological effects:

#### Acute toxicity:

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

## 12. Ecological Information

### Toxicity:

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	N/A	96h	Fish	OECD 203	N/A	N/A
EC50	N/A	48h	Daphnia	OECD 202	N/A	N/A
EC50	N/A	72h	Algae	OECD 201	N/A	N/A

**Persistence and degradability:** Not available.

**Bioaccumulative potential:** Not available.

<b>Mobility in soil:</b>	Not available.
<b>Results of PBT&amp;vPvB assessment:</b>	Not available.
<b>Other adverse effects:</b>	Not available.

### 13. Disposal Considerations

<b>Disposal instructions</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport Information

#### DOT

##### Basic shipping requirements:

<b>UN number</b>	Not regulated
<b>Proper shipping name</b>	Not regulated
<b>Hazard class</b>	Not regulated
<b>Packing group</b>	Not regulated
<b>Environmental hazards</b>	No

#### IATA

<b>UN number</b>	Not regulated
<b>UN proper shipping name</b>	Not regulated
<b>Transport hazard class(es)</b>	Not regulated
<b>Packing group</b>	Not regulated
<b>Environmental hazards</b>	No

#### IMDG

<b>UN number</b>	Not regulated
<b>UN proper shipping name</b>	Not regulated
<b>Transport hazard class(es)</b>	Not regulated
<b>Packing group</b>	Not regulated
<b>Environmental hazards</b>	No

### 15. Regulatory Information

#### US federal regulations

##### Toxic Substances Control Act (TSCA)

##### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

##### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

##### SARA 304 Emergency release notification

Not regulated.

##### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

##### SARA 302 Extremely hazardous substance

Not listed.

##### SARA 311/312 Hazardous chemical

No

##### SARA 313 (TRI reporting)

Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**16. Other Information**

**HMIS® ratings**

Health: 0  
Flammability: 1  
Physical hazard: 0

**NFPA ratings**

Health: 0  
Flammability: 1  
Instability: 0

**Disclaimer**

The information in the sheet was written based on the best knowledge and experience currently available.

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