

# SAFETY DATA SHEET

According to Work Health and Safety Regulations 2011 and National Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals

Version 1.0

Issue date: 18/07/2020

Revision date: 18/07/2020

SDS Record Number: C555-TCO-010-133599

## 1. Identification of the material and supplier

**Material name:** PolyFlex™ TPU90  
**Other Names:** -  
**Recommended use:** 3D Printing Filament.  
**Manufacturer:**  
**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 (zhenggang.cai@polymaker.com)  
**Telephone:** +86-512-52058005  
**Fax:** -  
**Emergency number:** +86-512-52058005  
**Importer**  
**Company name:**  
**Address:**  
**Contact person(E-mail):**  
**Telephone:**  
**Fax:**  
**Emergency number:**

## 2. Hazards identification

**GHS classification:**  
**Physical hazards:** Not classified  
**Health hazards:** Not classified  
**Environmental hazards:** Not classified  
**GHS label elements:**  
**Hazard Pictograms :** No hazard pictogram is used.  
**Signal word:** No signal word is used.  
**Hazard statement:** Not applicable.  
**Precautionary statement:**  
**Prevention:** Not applicable.  
**Response:** Not applicable.  
**Storage:** Not applicable.  
**Disposal:** Not applicable.  
**Specific hazards:** Not applicable.

## 3. Composition/information on ingredients

**Ingredient(s):** This product does not contain hazardous ingredients above cut-off value according to Code of Practice for Labelling of Workplace Hazardous Chemicals (2015)

#### 4. First aid measures

<b>Inhalation:</b>	If breathed in, move person into fresh air. If not breathing give artificial respiration.
<b>Skin:</b>	Wash off with soap and plenty of water.
<b>Eye:</b>	Flush eyes with water as a precaution.
<b>Ingestion:</b>	Never give anything by mouth to an unconscious person. Rinse mouth with water.
<b>Notes to physician:</b>	Treat symptomatically.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media:</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Extinguishing media which must not be used for safety reasons:</b>	Not available.
<b>Specific hazards arising from the chemical:</b>	In case of fire, the following can be released: carbon monoxide, carbon dioxide.
<b>Fire Fighting:</b>	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
<b>HAZCHEM code</b>	None.

#### 6. Accidental release measures

<b>Personal precautions:</b>	Provide adequate ventilation. Avoid breathing dust. Refer to section 8 of SDS for personal protection details.
<b>Containment procedures:</b>	Do not let product enter drains.
<b>Methods for cleaning up:</b>	Sweep up and shovel. Keep in suitable, closed and properly labelled containers for disposal.

#### 7. Handling and storage

<b>Precautions for safe handling:</b>	Avoid contact with skin and eyes. Avoid inhalation of vapor. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge. Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.
<b>Storage:</b>	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.

#### 8. Exposure controls/personal protection

<b>Control parameters</b>	
<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values:</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls:</b>	Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
<b>Personal protective equipment:</b>	
<b>Eye/face protection:</b>	Wear safety glasses with side shields (or goggles).
<b>Skin protection:</b>	Wear protective clothing.
<b>Respiratory protection:</b>	Respiratory protection is not required. Where protection is desired, use multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
<b>Hand protection:</b>	For prolonged or repeated contact use protective gloves.

## 9. Physical and chemical properties

### Appearance:

Physical state:	Solid
Form:	Solid
Color:	Translucent
Odor:	Odorless
Odour threshold:	Not available
PH:	Not available
Melting point/Freezing point:	Not available
Initial boiling point and boiling range:	Not available
Flash point:	Not available
Evaporation rate:	Not available
Flammability (solid, gas) :	Not available
Upper/lower flammability or explosive limits:	Not available
Vapor pressure:	Not available
Vapor density:	Not available
Relative Density:	1.18-1.23
Solubility (H <sub>2</sub> O) :	Insoluble in water
Partition coefficient (n-octanol/water) :	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity, dynamic:	Not available
Organic solvents:	Not available
Water:	Not available
VOC (EC) :	Not available
Solids contents:	Not available
Molecular Formula:	Not available
Molecular Weight:	Not available

## 10. Stability and reactivity

Reactivity:	The substance is stable under normal storage and handling conditions.
Chemical stability:	Stable at room temperature in closed containers under normal storage and handling conditions.
Possibility of hazardous reactions:	No dangerous reactions known.
Conditions to avoid:	Incompatible materials.
Incompatible materials:	Strong oxidizing agents
Hazardous decomposition products:	Carbon monoxide, carbon dioxide.

## 11. Toxicological information

### Toxicological data:

Acute toxicity:	
LD50(Oral, Rat):	Not available
LD50(Dermal, Rabbit):	Not available
LC50(Inhalation, Rat):	Not available
Skin corrosion/Irritation:	No data available.
Serious eye damage/irritation:	No data available.
Respiratory or skin sensitization:	No data available.
Germ cell mutagenicity:	No data available.
Carcinogenicity:	No data available.

<b>Reproductive toxicity:</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.
<b>Other information</b>	This product has no known adverse effect on human health.

## 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

<b>Persistence and degradability:</b>	Not available.
<b>Bioaccumulative potential:</b>	Not available.
<b>Mobility in soil:</b>	Not available.
<b>Other adverse effects:</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

<b>Disposal methods:</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
<b>Waste from residues/unused products:</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging:</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### ADG

<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>Labels required</b>	Not regulated
<b>Special precautions</b>	Read safety instructions, SDS and emergency procedures before handling.

### IATA

<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>Special precautions</b>	Read safety instructions, SDS and emergency procedures before handling.

### IMDG

<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>	
<b>Marine pollutant</b>	No

**Special precautions**

Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Not regulated

## 15. Regulatory information

### Safety, health and environmental regulations

#### National regulations

**Australia Medicines & Poisons Appendix A/B/D/E/F/G/H/I/J/K / Australia Medicines & Poisons Schedule 2/3/4/5/6/7/8/9/10**

Poisons schedule number not allocated.

**High Volume Industrial Chemicals (HVIC)**

Not listed.

**Importation of Ozone Depleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)**

Not listed.

**National Pollutant Inventory (NPI) substance reporting list**

Not listed.

**Prohibited Carcinogenic Substances**

Not regulated.

**Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)**

Not listed.

**Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)**

Not listed.

**Restricted Carcinogenic Substances**

Not regulated.

#### International regulations

**Stockholm Convention**

Not applicable

**Rotterdam Convention**

Not applicable.

**Kyoto protocol**

Not applicable.

**Montreal Protocol**

Not applicable.

**Basel Convention**

Not applicable.

#### Inventory status:

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic /Non-Domestic Substances List (DSL) /(NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial/ Notified Chemical Substances (EINECS) / (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information

<b>Indication of changes:</b>	Version 1.0
<b>Training instructions:</b>	Not applicable.
<b>Further information:</b>	This information is based upon the present state of our knowledge. This MSDS has been compiled and is solely intended for this product.
<b>Notice to reader:</b>	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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