	Dongguan Imai Intelligent Technology Co.,Ltd	Document and Revision Number	IGEF012 REV-02
	Material Safety Data Sheet	Revision Date	2022.12.04

MATERIAL SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY / UNDERTAKING

Product name	IEMAI 3D printing filament	Product code	TPU
Product use	A filament to be used in 3D printing applications.		

Revision date: 04/12/2022

Manufacturer / supplier:

Dongguan Imai Intelligent Technology Co.,Ltd

Address:

3 / F, Building C, Kanghuier Industrial Park, 178 Yongjun Road, Shuilang, Dalingshan Town,
Dongguan City, China.

Responsible / issuing person:


info@iemai3d.com

Emergency telephone numbers:

+86-769-83060912

2. HAZARDS IDENTIFICATION

Health effects:

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Prolonged and /or repeated contacts: Risk of skin sensitization. When handled at high temperatures, can cause serious burns.

Chronic health effects:

None known.

Eye contact:

Contact with eyes may cause irritation.

Skin contact:

Substance may cause slight skin irritation.

Ingestion:

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Carcinogenic status:


Not listed or regulated by IARC.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name: Thermoplastic polyurethane elastomer

Remarks: No hazardous ingredients. All additives are physically bound (encapsulated) in the compound. This product is not expected to create any hazard when it is used, handled and processed.

4. FIRST AID MEASURES

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Inhalation:

After inhalation of decomposition products, remove the affected person to a source of fresh air.

Call a physician immediately.

Skin contact:

Rinse immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. Cool skin rapidly with cold water after contact with hot polymer.

Eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.

Ingestion:

Drink water as a precaution. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Call a physician immediately.

Notes to physician:

Treat symptomatically.


5. FIRE- FIGHTING MEASURES

Extinguish media:

Small fire: Use dry chemical, CO₂, water spray or regular foam.

Large fire: Use water spray, water fog or regular foam. Do not use straight streams.

Fire fighting instructions:

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Fire fighters should wear positive pressure self-contained breathing apparatus and should be equipped with protective clothing. Keep people away and isolate fire area.

Combustion products:

Under fire conditions, polymer decomposes generating smoke and unidentified toxic and irritating compounds (see section 10).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Stop the leakage if you can do it without risk. Do not touch or walk through spilled material.

Isolate exposed area. Keep unauthorized personnel away.

Use certificated protective equipment. Ventilate the leaked area.

Environmental precautions :


Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.

Methods for cleaning up :

Shovel into suitable container for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling:

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Avoid processing material above recommended thermal processing temperatures. Good general ventilation should be sufficient for most conditions. Consider the use of local exhaust ventilation at processing emission points. Avoid breathing thermal processing fumes and vapors.

Mechanical handling equipment can cause formation of dust. Avoid breathing dust. Use proper grounding techniques when handling this product to avoid electrostatic charges. Pellets on the floor may be slippery and cause falls.

Conditions for safe storage, including any incompatibilities. Further information on storage conditions:

Store product in a cool, dry area. Keep in a tightly sealed container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Eye/face protection:

Wear safety glasses for general purpose.


Hand protection:

Wear gloves (product handled in molten state).

Skin and body protection:

Wear protective clothing (product handled in molten state).

Respiratory protection:

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For most conditions, no respiratory protection should be needed. When processing at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Filament.

Odour: Not noticeable.

Density: 1 ~ 1.4 g/cm³ (23°C).

Melting point / melting range: 125°C to 230°C.

Boiling point / boiling range: Not applicable.

Flash point: Not applicable.

Auto ignition temperature: No data available.

Vapor pressure: Not applicable.

Solubility in water: Insoluble.


10. STABILITY AND REACTIVITY

Stability:

Stable at room temperature.

Hazardous decomposition:

These potential decomposition gases have not been fully determined but may include CO, CO₂, and small amounts of hydrogen, cyanide, oxides of nitrogen, hydrocarbons, isocyanate, water

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vapor and / or combinations of the previous and smoke. Substances listed under thermal processing emissions may also be present.

The specific materials generated will vary depending on temperature, time and other immediate environmental factors.

Conditions to Avoid:

Temperature above 260°C.

11. TOXICOLOGICAL INFORMATION

Inhalation:

At room temperature, exposure to dust and vapors is unlikely. High processing temperatures may generate vapors, which may cause irritation and sensitization.

Eyes:


Solid or dust may cause irritation due to mechanical action. Elevated temperatures may generate vapors sufficient to cause eye irritation.

Skin contact:

At room temperature essentially non-irritating to skin. At high temperature vapors may cause sensitization.

No toxicity studies have been conducted.

12. ECOLOGICAL INFORMATION

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Not expected adverse effects from this product as furnished. This product has not been tested.

Material is expected to have low aquatic toxicity because of its insolubility in water.

13. DISPOSAL CONSIDERATIONS

Do not dump into any sewers, on the ground or into any body of water.

Controlled incineration or landfill according to local, state or national laws and regulations concerning health and pollution.

14. TRANSPORT INFORMATION

Not regulated as dangerous goods.

15. REGULATORY INFORMATION

This product does not need to be labeled according to Chinese regulations.


EINECS status: All starting raw materials of this product are listed on EINECS.

TSCA status: All ingredients are on the TSCA inventory.

China: All components of this product are included on the Chinese inventory.

16. OTHER INFORMATION

Disclaimer of Responsibility

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