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	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	PLA
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

Classification of the substance or mixture (GHS US):

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Not classified.

GHS Label elements, including precautionary statements:

No labeling applicable.

Other hazards which do not result in classification:

Warning. Potential dust explosion hazard. Dust may form explosive mixture in air.

Unknown acute toxicity (GHS US):

Not applicable.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical name:** Luminy PLA neat resin

**CAS Number:** 9051-89-2

**Weight:** ≥99%

**GHS US classification:** Not classified


### 4. FIRST AID MEASURES

**Inhalation:**

After inhalation of decomposition products, remove the affected person to a source of fresh air and keep calm. Provide medical aid.

**Skin contact:**

Areas affected by molten material should be quickly placed under cold running water.

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Burns caused by molten material require hospital treatment.

**Eye contact:**

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If

irritation develops, seek immediate medical attention.

**Ingestion:**

Rinse mouth and then drink plenty of water. If difficulties occur, seek medical attention.

**Most important symptoms and effects, both acute and delayed symptoms:**

No significant reaction of the human body to the product known.

**Notes to physician:**

Treat symptomatically.

**5. FIRE- FIGHTING MEASURES**

**Suitable extinguishing media:**

Water spray, dry powder, foam


**Unsuitable extinguishing media:**

Do not use a solid water stream as it may scatter and spread fire.

**Explosion hazard:**

Dust can form an explosive mixture with air.

**Reactivity in case of fire:**

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Under fire conditions, hazardous fumes will be present carbon monoxide, carbon dioxide, acetaldehyde.

**Special protective equipment and precautions for fire-fighters:**

Firefighting instructions: Evacuate personnel to a safe area. Use water spray or fog for cooling exposed containers. Move containers from fire area if it can be done without personal risk.

Prevent fire-fighting water from entering environment.

Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures:**


For non-emergency personnel: Wear recommended personal protective equipment. Evacuate unnecessary personnel. Ventilate spillage area.

Avoid dust formation. Avoid contact with skin and eyes. Do not touch or walk on the spilled product. Do not breathe dust.

Measures in case of dust release: No flames, no sparks. Eliminate all sources of ignition.

For emergency responders: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

**Environmental precautions :**

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

**Methods and material for containment and cleaning up:**

For containment: Stop leak, if possible without risk. Avoid creating or spreading dust.

Methods for cleaning up: Avoid dust formation. Shovel or sweep up and put in a closed container for disposal. Flush contaminated areas with plenty of water. Use non-sparking tools.

Never return spills in original containers for possible later re-use.

Other information: Dispose of materials or solid residues at an authorized site.

**Reference to other sections:**

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.


**7. HANDLING AND STORAGE**

**Additional hazards when processed: Dust may form flammable and explosive mixture with air.**

**Precautions for safe handling:**

Handle under inert gas. Protect from moisture. Wear personal protective equipment. Avoid contact with skin and eyes. Ensure good ventilation of the work station. Keep only in original container. Do not handle until all safety precautions have been read and understood.

Hygiene measures: Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Use good housekeeping practices during storage, transfer, handling,

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to avoid excessive dust accumulation. Wash contaminated clothing before reuse. Avoid contact with skin, eyes and clothing. Do not breathe dust.

**Conditions for safe storage, including any incompatibilities:**

Storage conditions: Keep container tightly closed in a cool, well-ventilated place. Protect from moisture.

Incompatible materials: Water, humidity.

Storage temperature: < 122 °F.

Storage area: Store according to local legislation.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Control parameters:**

Luminy PLA Neat resin (9051-89-2): No additional information available.

Poly lactide resin (9051-89-2): No additional information available.

Additional information: Contains no substances with occupational exposure limits.


**Appropriate engineering controls:**

Ensure good ventilation of the work station. Assess the risk of potentially explosive atmospheres and the need for explosion-proof equipment.

**Environmental exposure controls:**

Avoid release to the environment.

**Hand protection:**

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Protective gloves.

Type	Material	Permeation	Thickness (mm)
Protective gloves	Butyl rubber	6 (> 480 minutes)	0.5

**Eye protection:**

Safety glasses with side shields.

Type	Field of application
Safety glasses with side shields	Dust

**Skin and body protection:**

Long sleeved protective clothing.


**Respiratory protection:**

No respiratory protection needed under normal use conditions. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.

Device	Filter Type	Condition
Dust Mask	(FFP2)	Dust protection

**Other information:**

Handle in accordance with good industrial hygiene and safety procedures. Always wash hands after handling the product. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes and clothing. Use good housekeeping practices during storage, transfer, handling, to avoid excessive dust accumulation. Wash contaminated clothing before reuse. Do not breathe dust.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Filament.

**Color:** Nature.

**Odour:** Odorless.

**Odor threshold:** No data available.

**pH Value:** No data available.

**Melting point:** 150°C–to 230°C.

**Freezing point:** Not applicable.

**Boiling point:** No data available.

**Flash point:** Not applicable.

**Relative evaporation rate (butyl acetate=1):** No data available.

**Flammability (solid, gas):** Non flammable.

**Vapor pressure:** No data available.

**Relative vapor density at 20 °C:** No data available.

**Relative density:** No data available.


**Density:** 1.2g/cm<sup>3</sup> to 1.3g/cm<sup>3</sup>.

**Solubility in water:** Insoluble.

**Partition coefficient n-octanol/water (Log Pow):** No data available.

**Auto-ignition temperature:** Not applicable.



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**Decomposition temperature:** > 230°C.

**Viscosity, kinematic:** Not applicable.

**Viscosity, dynamic:** No data available.

**Explosion limits:** Not applicable.

**Explosive properties:** No data available.

**Oxidizing properties:** No data available.

## 10. STABILITY AND REACTIVITY

### Stability:

Stable under normal conditions.

### Reactivity:

The product is non-reactive under normal conditions of use, storage and transport.


### Possibility of hazardous reactions:

No dangerous reactions known under normal conditions of use. Hazardous polymerization will not occur.

When mixed with air and exposed to an ignition source, dust may burn in the open air or explode if confined.

### Conditions to avoid:

Above a temperature of: 230°C / 446 °F. Protect from moisture. Avoid raising powdered materials into airborne dust, creating an explosion hazard.

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**Incompatible materials:**

Water, humidity.

**Hazardous decomposition products:**

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**11. TOXICOLOGICAL INFORMATION**

**Acute toxicity (oral):** Not classified.

**Acute toxicity (dermal):** Not classified.

**Acute toxicity (inhalation):** Not classified.

**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.

**Viscosity, kinematic:** Not applicable.

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**Symptoms / effects:** None known. Non-hazardous substance.

## 12. ECOLOGICAL INFORMATION

### **Toxicity:**

The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

### **Persistence and degradability:**

Hydrolyses in hot water. The hydrolysis product is readily biologically degradable. Compostable and biodegradable according to EN 13432, ASTM D6400 and ISO 17088.

Decomposes in contact with (hot) water. The hydrolysis product is S-lactic acid which is readily biodegradable.

Bio accumulative potential: No additional information available.

Mobility in soil (and other compartments if available): No additional information available.

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


No additional information available.

### **Other adverse effects:**

No additional information available .

## 13. DISPOSAL CONSIDERATIONS

### **Regional legislation (waste):**

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Dispose in a safe manner in accordance with local / national regulations.

**Waste treatment methods:**

Dispose of contents / container in accordance with licensed collector's sorting instructions.

**Product / Packaging disposal recommendations:**

Dispose in a safe manner in accordance with local / national regulations. Do not re-use empty containers without proper cleaning or reconditioning.

**14. TRANSPORT INFORMATION**


Not regulated.

**15. REGULATORY INFORMATION**

**US Federal regulations:**

Luminy PLA Neat resin (9051-89-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>EPA TSCA</b>	PMN-PMN: indicates a commenced PMN substance.
<b>Regulatory Flag</b>	XU-XU: indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).

All components of this product are listed as Active, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

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This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

<b>Poly lactide resin (9051-89-2)</b>	
<b>EPA TSCA</b>	PMN-PMN: indicates a commenced PMN substance.
<b>Regulatory Flag</b>	XU-XU: indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).


**International regulations:**

<b>Luminy PLA Neat resin (9051-89-2)</b>
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (National Chemicals Inventory)

<b>Poly lactide resin (9051-89-2)</b>
Listed on the TCSI (Taiwan Chemical Substance Inventory)
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**US State regulations:**

California Proposition 65: This product does not contain any substances known to the state of California to cause cancer, developmental and / or reproductive harm.

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## 16. OTHER INFORMATION

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations.

Training advice: Training staff on good practice.