

	Dongguan Imai Intelligent Technology Co.,Ltd	Document and Revision Number	IHPF016 REV-02
	Material Safety Data Sheet	Revision Date	2025.08.29

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	PEEK Medical Implant
Product use	A filament to be used in implanted medical device and 3D printing applications.		

Revision date: 29/08/2025

Manufacturer / supplier:

Dongguan Imai Intelligent Technology Co.,Ltd

Address:

2nd Floor, Building F, No. 6 Hupan Road, Dalingshan Town, Dongguan City, China.

Responsible / issuing person:

info@iemai3d.com

Emergency telephone numbers:

+86-769-83060912

	Dongguan Imai Intelligent Technology Co.,Ltd	Document and Revision Number	IHPF016 REV-02
	Material Safety Data Sheet	Revision Date	2025.08.29

2. HAZARDS IDENTIFICATION

GHS Hazard Classification:

Not a hazardous substance or mixture according to the Global Coordination System (GHS).

GHS Label Elements, Including Precautionary Statements:

Not a hazardous substance or mixture according to the Global Coordination System (GHS). Beware of substance that has not been fully tested.

Physical and Chemical Hazards:

There is no physical or chemical danger according to the currently available with information.

Health Hazards:

There is no health hazard according to the currently available with information.

Environmental Hazards:

There is no environmental hazard according to the currently available with information.

Other hazards:

No

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name: Poly(ether-ether-ketone)

	Dongguan Imai Intelligent Technology Co.,Ltd	Document and Revision Number	IHPF016 REV-02
	Material Safety Data Sheet	Revision Date	2025.08.29

Chemical alias: Poly(oxy-1,4-phenyleneoxy-1,4-phenylenececarbonyl-1,4-phenylene)

CAS Number: 29658-26-2

Formula: [OC₆H₄OC₆H₄COC₆H₄]_n

Remarks: No hazardous ingredients.

4. FIRST AID MEASURES

Inhalation:

After inhalation of decomposition products, remove the affected person to a source of fresh air and keep calm. When breathing is difficult, give oxygen. If symptoms develop, seek immediate medical attention.

Skin contact:

In case of contact with skin, wash immediately with plenty of soap and water. In contact with high-temperature molten products: cool affected areas with water quickly, do not attempt to remove hardened products, and seek immediate medical attention.

Eye contact:

Open the eyelids and rinse with eye lotion or clear water for at least 15 minutes. If irritation develops, seek immediate medical attention.

Ingestion:

Do not feed anything to an unconscious person. Rinse mouth with water.

Most important symptoms and health effects:

	Dongguan Imai Intelligent Technology Co.,Ltd	Document and Revision Number	IHPF016 REV-02
	Material Safety Data Sheet	Revision Date	2025.08.29

The most important known symptoms and effects are described in labels (see section 3) and/or in section 11.

Instructions for Prompt Medical Attention and Special Treatment Needed:

No data available.

Special Tips for Doctor:

No data available.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Water spray, dry powder, alcohol-resistant foam, carbon dioxide.

Special hazards arising from the substance or mixture:

Carbon oxides.

Extinguishing precautions and protection measures:

If necessary, wear a self-contained breathing apparatus for firefighting operations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Avoid dust formation. Avoid inhaling vapors, aerosols or gas. For personal protection, see section 8.

Environmental precautions:

	Dongguan Imai Intelligent Technology Co.,Ltd	Document and Revision Number	IHPF016 REV-02
	Material Safety Data Sheet	Revision Date	2025.08.29

Do not let the product enter drains.

Methods for the reception and removal of leaking chemicals, and disposal materials used:

Sweep / shovel up. Keep in suitable, closed containers for disposal.

Reference to other sections:

Information regarding disposal considerations can be found in section 13.

7. HANDLING AND STORAGE

Precautions for safe handling:

Suggestions for fire and explosion prevention

Provide appropriate exhaust equipment where dust is formed.

Hygienic measure

Routine industrial hygiene operations. For preventive measure, see section 3.

Conditions for safe storage, including any incompatibilities:

Storage condition

Store in the shade. Keep container tightly closed in a dry and well-ventilated place.

VCI storage grade

German Storage Class (TRGS 510):13: non-combustible solid.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

	Dongguan Imai Intelligent Technology Co.,Ltd	Document and Revision Number	IHPF016 REV-02
	Material Safety Data Sheet	Revision Date	2025.08.29

Control Parameters:

Hazard composition and occupational exposure limits

There are no known nationally prescribed exposure limits.

Exposure controls:

Appropriate technical controls

Routine industrial hygiene operations.

Personal protective equipment

Eye protection

Use equipment for eye protection tested and appropriate government standards such as NIOSH (USA) OR EU 166 (EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves carefully after use in accordance with relevant laws and regulations and effective laboratory procedures. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374 derived from it.

Body protection

	Dongguan Imai Intelligent Technology Co.,Ltd	Document and Revision Number	IHPF016 REV-02
	Material Safety Data Sheet	Revision Date	2025.08.29

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory system protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1(EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let the product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Filament.

Color: Natural.

Odour: No data available.

Odor threshold: Tasteless.

pH Value: No data available.

Melting temperature: 343°C

	Dongguan Imai Intelligent Technology Co.,Ltd	Document and Revision Number	IHPF016 REV-02
	Material Safety Data Sheet	Revision Date	2025.08.29

Boiling point / boiling range: No data available.

Flash point: No data available.

Evaporation Rate: No data available.

Flammability (solid, gas): No data available.

Upper / lower flammability or explosion limits: No data available.

Vapor pressure: No data available.

Vapor density: No data available.

Density: 1.3g/mL at 25°C

Water solubility: Insoluble in water.

Partition Coefficient: n-octanol/water: No data available.

Auto-ignition temperature: No data available.

Decomposition temperature: No data available.

Viscosity: No data available.

Explosive properties: No data available.

Oxidizing properties: No data available.

10. STABILITY AND REACTIVITY

Reactivity:

No hazardous reactions if stored and handled as prescribed / indicated.

	Dongguan Imai Intelligent Technology Co.,Ltd	Document and Revision Number	IHPF016 REV-02
	Material Safety Data Sheet	Revision Date	2025.08.29

Chemical stability:

The product is stable if stored and handled as prescribed / indicated.

Hazardous Reaction:

No data available.

Conditions to avoid:

Electrostatic charge. Naked fire, combustion source. Above decomposition temperature:
450°C.

Incompatibility:

Strong oxidizing agents.

Dangerous decomposition products:

Other decomposition products-No data available. In the event of fire: see section 5.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

Swallow: No data available.

Inhalation: No data available.

Skin contact: No acute toxicity.

Skin corrosion / irritation:

No skin irritation.

Serious eye damage / eye irritation:

	Dongguan Imai Intelligent Technology Co.,Ltd	Document and Revision Number	IHPF016 REV-02
	Material Safety Data Sheet	Revision Date	2025.08.29

No data available.

Germ cell mutagenic:

No germ cell mutagenicity.

Carcinogenicity:

No carcinogenic.

Reproductive toxicity:

No reproductive toxicity.

Single dose toxicity and Specific target organ toxicity (single exposure):

No data available.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure):

No data available.

Aspiration hazard:

Mechanical damage to the respiratory tract.

Other relevant toxicity information:

The material has been tested and analyzed by inspection institutions. The material meets the requirements of ASTM F2026 and ISO 10993 standards, and the biological toxicity meets the requirements of medical implanted materials.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

	Dongguan Imai Intelligent Technology Co.,Ltd	Document and Revision Number	IHPF016 REV-02
	Material Safety Data Sheet	Revision Date	2025.08.29

Low toxicity to aquatic organism

Persistence and degradability:

The product is not-biodegradable.

Bio accumulative potential:

No data available.

Mobility in soil:

Insoluble in water, lower mobility in soil

Results of PBT and vPvB assessment:

PBT / vPvB assessment not available as chemical safety assessment not required / not conducted.

Additional information:

No data available.

13. DISPOSAL CONSIDERATIONS

Waste disposal method:

Offer surplus and non-recyclable solutions to a licensed disposal company

Contaminated packaging:

Disposal of as unused products

14. TRANSPORT INFORMATION

	Dongguan Imai Intelligent Technology Co.,Ltd	Document and Revision Number	IHPF016 REV-02
	Material Safety Data Sheet	Revision Date	2025.08.29

UN number: Not classified as a dangerous good.

UN proper shipping name: Not classified as a dangerous good.

Transport hazard class(es): Not classified as a dangerous good.

Packing group: Not classified as a dangerous good.

Environmental hazards: Not classified as a dangerous good.

Special precautions for user: Please choose the appropriate transportation tools and storage conditions according to the nature of the chemical. The means of transport should be equipped with corresponding variety and quantity of fire-fighting materials and leakage emergency treatment equipment. If you choose road transport, please follow the prescribed route.

Incompatible Materials: Strong oxidant.

Further Information: According to transportation regulations, it is not classified as dangerous goods.

15. REGULATORY INFORMATION

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

Law of the People's Republic of China on Occupational Disease Prevention

Classification catalogue of occupational hazard factors: not listed.

Regulations on the Safety Management of Hazardous Chemicals

	Dongguan Imai Intelligent Technology Co.,Ltd	Document and Revision Number	IHPF016 REV-02
	Material Safety Data Sheet	Revision Date	2025.08.29

Hazardous chemicals catalogue(2018): not listed.

Registration Measures for Environmental Management of Hazardous Chemicals

Catalogue of hazardous chemicals for key environmental management(2014): not listed.

Regulations on the Administration of Narcotic Drugs and Psychotropic Drugs

Catalogue of varieties of narcotic drugs(2013): not listed.

Directory of varieties of psychotropic drugs(2013): not listed.

Measures for Environmental Management of New Chemical Substances

List of existing chemical substances in China: Has been listed.

Other Provisions

Please note that waste disposal should also meet the requirements of the local regulations.

16. OTHER INFORMATION

The information in this Material Safety Data Sheet (MSDS) is based on current knowledge and experience. No liability can be assumed for the accuracy and completeness of this information.