



# Advanced BioCarbon 3D

Sustainable **advanced** materials

Date 21<sup>st</sup> Dec 2023

**MATERIAL SAFETY DATA SHEET**

**Version 1.0**

## 1. IDENTIFICATION

Trade name: PETG

Generic name: PETG (polyethylene terephthalate glycol)

Identified use: Thermal processing for 3D printing in Layer Plastic Deposition (LPD) technology.

Supplier:

Advanced BioCarbon 3D

Victoria BC

Canada

Phone +1 250 544 5377

## 2. HAZARD IDENTIFICATION

Material type: Thermoplastic

The product is not classified as dangerous according to Regulation (EC) No 1272/2008.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

PETG (polyethylene terephthalate glycol-modified) – 96% CAS: 25038-91-9

Additives and colourants – 0 ~ 4%

## 4. FIRST AID MEASURES.

Eye contact: Immediately rinse the eyes with water. In case of irritation, contact a physician.

Skin contact: If molten material comes into contact with the skin, cool immediately with cold water. Removal of solidified molten material from the skin and treating burns require medical assistance.

Ingestion: Remove material residues from the mouth and rinse the mouth with water. Drink plenty of water. Do NOT induce vomiting. In case of discomfort, contact a physician.

Inhalation: Provide fresh air. In case of noticing worrying symptoms, consult a physician.

## **5. FIREFIGHTING MEASURES**

Suitable extinguishing media: Fine spray or water mist, dry powder, foam, carbon dioxide (CO<sub>2</sub>).

Special hazards arising from the substance or mixture: Burning produces irritating and noxious fumes/gases, smoke, carbon monoxide, carbon dioxide.

## **6. ACCIDENTAL RELEASE MEASURES**

Personal precautions: Use personal protective equipment. Ensure proper ventilation. Avoid contact with molten material. Do not eat, drink or smoke when using the product. Do not ingest.

Environmental protection: Prevent or limit further leakage if possible. Avoid discharge of the product into drain, ground and surface water.

## **7. HANDLING AND STORAGE**

Precautions for safe handling: Handle in accordance with general safety regulations. Use personal protective equipment. Ensure proper ventilation. Avoid contact with molten material. Do not eat, drink or smoke when using the product. Do not ingest.

Conditions for safe storage: Store in tightly closed packaging in a dry and cool room away from hot surfaces and sources of ignition. Protect from moisture and direct sunlight.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Exposure limits: The product does not contain any hazardous substances with occupational exposure limits.

Personal protective equipment: Wear safety glasses with side shields. Wear heat-resistant gloves when handling molten material. When working in spaces with high temperatures and with poor ventilation, use breathing equipment with a particle filter.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: Filament,

Physical state: Solid,

Colors: As displayed in the label

Relative density: 1,30 g/cm<sup>3</sup>

Solubility: Insoluble

## **10. STABILITY AND REACTIVITY**

Reactivity: No reactivity under normal storage conditions.

Chemical stability: Stable under normal storage conditions.

Conditions to avoid: Sources of heat, ignition and moisture. Working in spaces with poor ventilation.

Incompatible materials: Strong oxidants

## **11. TOXICOLOGICAL INFORMATION**

Skin corrosion/irritation: Contact with skin may cause irritation.

Serious eye damage/irritation: Contact with eyes may cause irritation.

Acute toxicity: Oral LD50> 5000 mg / kg (rat), skin LD50> 2000 mg / kg (rabbit).

## **12. ECOLOGICAL INFORMATION**

Toxicity: No data available

Persistence and degradability: The product is non-biodegradable.

Bioaccumulative potential: Bioaccumulation is not expected.

## **13. DISPOSAL CONSIDERATIONS**

Waste treatment methods: Do not discard into drains, water courses or onto the ground. Waste and empty containers should be disposed of in accordance with local regulations.

## **14. TRANSPORT INFORMATION**

The product is not classified as dangerous for transport.

## **15. REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the substance or mixture: The product does not contain any hazardous substances with occupational exposure limits.

## **16. OTHER INFORMATION**

This Safety Data Sheet has been prepared on the basis of the currently available data on the product as well as of the Manufacturer's experience and knowledge. It should be treated as a guide for safe transportation, storage and handling. The given information is not to be considered as a warranty or quality specification. Additionally, it is the user's responsibility to handle the product in accordance with local regulations and standards.