

Material Safety Data Sheet (MSDS)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: PETG ESD Antistatic Filament

Product Use: Thermoplastic filament for FDM/FFF 3D Printing

Manufacturer/Supplier:

Fabbxible Technology

11A, Jalan Iks Bukit Tengah, Taman Iks Bukit Tengah, 14000 Bukit Mertajam, Pulau Pinang, Malaysia

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2. HAZARDS IDENTIFICATION

GHS Classification:

Not classified as hazardous under GHS criteria for solid filament.

Hazard Pictograms: None

Signal Word: None

Hazard Statements:

- Not hazardous in solid form.
- Processing (heating/melting) may release fumes that can cause respiratory irritation.

Precautionary Statements:

- Avoid breathing dust or vapors during processing.
- Use only with adequate ventilation.
- Wash hands thoroughly after handling.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Weight %
PETG (Polyethylene Terephthalate Glycol-modified)	25640-14-6	>90%
Carbon Black or Conductive Additive	1333-86-4 (if carbon black)	<10%
Antistatic Agent	Proprietary	<5%

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If symptoms persist, seek medical attention.

Skin Contact: Wash with soap and water. Molten material may cause thermal burns.

Eye Contact: Rinse cautiously with water for several minutes. Seek medical attention if irritation persists.

Ingestion: Not expected to be toxic. If swallowed, seek medical advice.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Water spray, foam, dry chemical, or CO₂.

Unsuitable Extinguishing Media: None known.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, aldehydes, and other unknown vapors.

Protective Equipment: Firefighters should wear self-contained breathing apparatus (SCBA).

6. ACCIDENTAL RELEASE MEASURES

Spill/Leak Procedures: Sweep or vacuum up spilled material. Avoid creating dust. Dispose of in accordance with local regulations.

Environmental Precautions: Prevent entry into drains or waterways.

7. HANDLING AND STORAGE

Handling:

- Use with adequate ventilation.
- Avoid dust generation.
- Avoid contact with molten polymer.

Storage:

- Store in a cool, dry, and well-ventilated area.
 - Keep container tightly closed when not in use.
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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits:

- Carbon Black: ACGIH TLV: 3.5 mg/m³ (inhalable)
- PETG: Not established

Engineering Controls: Local exhaust during printing or processing.

Personal Protection:

- **Respiratory:** Use dust mask if airborne particles are generated.
- **Skin:** Wear gloves when handling hot material.
- **Eyes:** Safety glasses recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value
Appearance	Black or dark filament
Odor	Slight odor when heated
Melting Point	~230–260°C
Density	~1.2–1.3 g/cm ³
Solubility	Insoluble in water
Flash Point	>400°C

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions

Reactivity: None expected under normal use

Hazardous Reactions: None known

Decomposition Products: Carbon oxides, VOCs, aldehydes under thermal decomposition

11. TOXICOLOGICAL INFORMATION

- **Acute Toxicity:** Not classified
 - **Skin Irritation:** Not expected in solid form
 - **Inhalation:** Fumes during printing may cause irritation
 - **Carcinogenicity:** Carbon black is classified as possible carcinogen (IARC Group 2B) when airborne as respirable dust, but not in solid bound form.
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12. ECOLOGICAL INFORMATION

- **Environmental Effects:** Not readily biodegradable
 - **Aquatic Toxicity:** No data available
 - **Bioaccumulation:** Not expected
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13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, regional, or national regulations. Material may be recycled where facilities exist.

14. TRANSPORT INFORMATION

Not classified as hazardous for transport (ADR, IMDG, IATA).

15. REGULATORY INFORMATION

- Not classified as hazardous under GHS
 - Not regulated under REACH Annex XIV
 - TSCA: All components listed or exempt
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16. OTHER INFORMATION

Abbreviations:

- GHS: Globally Harmonized System
- TSCA: Toxic Substances Control Act
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

Disclaimer: The information above is believed to be accurate but is not guaranteed. The user is responsible for determining the suitability of this material for a specific purpose and ensuring compliance with local regulations.