

# **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

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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).



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## 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.

## 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.



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#### **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/cm³
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



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### 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.

### 12. ECOLOGICAL INFORMATION

- Environmental Effects: Not readily biodegradable
- Aquatic Toxicity: No data available
- Bioaccumulation: Not expected

## 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).



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## 15. REGULATORY INFORMATION

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

### 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.