

**MakerGeeks Manufacturing, Inc.**

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**Material Safety Data Sheet -PETG filament**

**1. CHEMICAL PRODUCT/ COMPANY NAME**

Substance or Preparation Substance

Chemical Name: PET(Polyethylene Terephthalate)

Product Description: Engineered Plastics.

Product Use: May be used to produce model or extruded articles or as a component of other industrial products.

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**2. Composition/Ingredient Information**

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% >80% <12% <5% <4% <2%

Materials

PET(Polyethylene Terephthalate) Toughener/Impact modifiers(Rubber)

Compatibilizer, lubricators, colorants, and stabilizers Titanium Dioxide(TiO<sub>2</sub>)  
Carbon Black

CAS Number 25038-59-9 25053-09-2

Non-regulated 13463-67-7 1333-86-4

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### **3. HAZARDS IDENTIFICATION**

#### **Emergency Overview:**

PETG filament with slight or no odor. Spilled filaments create slipping hazard. Can burn in a fire creating dense toxic smoke. Molten plastic can cause severe thermal burns. Fume produced during melt processing may cause eye, skin and respiratory tract irritation. Secondary operations, such as grinding, sanding or sawing, can produce dust which may present a respiratory hazard. Product in filament form is unlikely to cause irritation.

#### **Melt Processing Health Effects:**

Molten plastic can cause severe burns. Processing fumes may cause irritation to the eyes, skin and respiratory tract, and in cases of severe overexposure, nausea and headache.

**Medical Restrictions:** There are no known human health effects aggravated by exposure to this product. However, certain sensitive individuals and individuals with respiratory impairments may be affected by exposure to components in the processing fumes.

### **4. FIRST AID MEASURES**

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**Eyes: Skin:**

**Ingestion: Inhalation:**

Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

The compound is not likely to be hazardous by skin contact, but cleaning the skin after use is advisable. If molten polymer gets on

skin, cool rapidly with cold water. Do not attempt to peel polymer from skin. Obtain medical treatment for thermal burn.

No specific intervention is indicated as compound is not likely to be hazardous by ingestion. Consult a physician if necessary. No specific intervention is indicated as the compound is not likely to be hazardous by inhalation. Consult a physician if necessary. If exposed to fumes from overheating or combustion, moved to fresh air. Consult a physician if symptoms persist.

For processing fume inhalation irritation, leave contaminated area and breathe fresh air. If coughing, difficult breathing or any other symptoms develop at a later time. For skin contact with fume condensate, immediately wash thoroughly with soap and water.

If irritation develops, seek medical attention.

## **5. ACCIDENTAL RELEASE MEASURES**

**General:** Review FIRE FIGHTING MEASURES AND HANDLING Sections.

## **6. HANDLING AND STORAGE**

**Handling:** See FIRST AID and PERSONAL PROTECTION EQUIPMENT

SECTIONS.

**Storage:** Store in a cool, dry place. Keep containers tightly closed to prevent

moisture absorption and contamination..

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

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**Engineering Controls: Personal precautions: Eye/Face:**

Use local ventilation to control fumes from hot processing.

Wear safety glasses. Wear coverall chemical splash goggles and face shield when possibility exists for eye and face contact due to splashing or spraying of molten material. A full face mask respirator provides protection from eye irritation.

### **Skin: Respiratory:**

If there is potential contact with hot/molten material, wear heat resistant clothing and footwear.

A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge with a dust/mist filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

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## **8. PHYSICAL AND CHEMICAL PROPERTIES Physical State:**

Solid

**Odor:**

**Melting Point:**

**Specific Gravity(Water=1): Water Solubility:**

**% Volatiles:**

Possibly a slight organic odor. 230°C -255°C

>1.1 Insoluble

Not Determined

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## **9. STABILITY AND REACTIVITY**

**Stability: Polymerization: Conditions To Avoid:**

Stable  
Poymerization will not occur

Exposure to open flame or temperatures >570°F for pro-longed time.

Other Materials.  
cyclopentanone, carbon monoxide, aldehydes, ammonia.

## **10. ECOLOGICAL INFORMATION**

**AQUATIC TOXICITY:** No Information is available. Toxicity is expected to be low based on insolubility in water.

## **11. DISPOSAL INFORMATION**

**Incompatabilities:**

**Hazardous Decomposition:** Hazardous gasses or vapors can be released, including

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### **Waste Disposal:**

Preferred options for disposal are (1) Recycling, (2) Incineration with energy recovery, and (3) Landfill. The high fuel value of this product makes option 2 very desirable for material that cannot be recycled, but incinerator must be capable of scrubbing out acidic combustion products. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

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## **12. TRANSPORTATION INFORMATION**

**DOT Hazard Class:**

**Proper shipping name:**

**Identification Number:**

**Proper shipping name:**

**Hazard Class:**

**UN-No.:**

**Packing group:**

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### **13. REGULATORY INFORMATION**

**TSCA Status:** In compliance with TSCA Inventory requirements for

commercial purposes. **WHMIS Classification:** Not a controlled product.

This product does not contain reportable quantities of substances subject to supplier notification.

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### **14. OTHER INFORMATION**

Not Regulated. Not Regulated

Not Listed None

Not regulated. None

None

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**Medical Use:**

**User Responsibility:**

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**CAUTION:** Do not use in medical applications involving permanent implantation in the human body.

Each user should read and understand this information and incorporate it into individual site safety programs in accordance with applicable hazard communication standards and regulations.

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