

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

**Product name:** PCTG (Polycyclohexylenedimethylene Terephthalate Glycol) Filament

**Product Use:** 3D printer filament

**Supplier:**

American Filament  
4315 Spartacus Dr SW  
Huntsville, AL 35805  
support@americanfilament.us  
+1-256-489-1155

**Emergency telephone numbers (24 hours a day):**

In case of toxicological emergency, call 911.

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

**Product Definition** : The substance is not classified as dangerous according to Regulation (EC) No 1272/2008 (CLP/GHS) and Directive 67/548/EEC.

### 2.2 Label elements

**Hazard Pictogram** : None  
**Signal Word** : None  
**Hazard Statements** : None  
**Precautionary Statements** : Not applicable

### 2.3 Other hazards

**Others hazards which do not result in classification** : The hazards of this product are associated mainly with its processing. Molten polymer will produce thermal burns. Polymer dust may represent a fire hazard at sufficient concentration in the presence of ignition sources.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Substance Name/CAS   | Concentration (%) | Classification       |                            |
|--|-------------------|----------------------|----------------------------|
|  |                   | Directive 67/548/EEC | Regulation EC No 1272/2008 |
| Copolyester Polycyclohexylenedimethylene Terephthalate Glycol (PCTG) | > 99.9            | Not Classified       | Not Classified             |
| Additives  | < 0.1             | Not Classified       | Not Classified             |

All ingredients in quantities > 1.0% (0.1% for carcinogens) that are potentially hazardous per OSHA definitions. The polymer contains minor additives such as stabilizers and catalysts. These additives are immobilized by the polymer and are not released with normal use.

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**Other Standards:** This material can generate Particulates Not Otherwise Classifiable (PNOC). The Occupational Safety and Health Administration (OSHA) PEL/TWA for PNOC is 15 mg/m<sup>3</sup> for total dust and 5 mg/m<sup>3</sup> for the respirable fraction. The American Conference of Governmental Industrial Hygienists (ACGIH) TLV/TWA for PNOC is 10 mg/m<sup>3</sup> for inhalable particulates and 3 mg/m<sup>3</sup> for respirable particulates.

## 4. FIRST AID MEASURES

**Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 20 minutes. Call a physician immediately.

**Skin contact:** Adverse effects are not expected from accidental skin contact following occupational exposure. After contact with skin, wash immediately with plenty of water. If skin irritation persists, call a physician. Cool skin rapidly with cold water after contact with hot polymer. DO NOT attempt to remove hot polymer from skin or contaminated clothing as skin may be easily damaged. Call a physician immediately.

**Inhalation:** Move exposed person to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion. Consult a physician after significant exposure.

**Ingestion:** Drink water as a precaution. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Call a physician immediately.

## 5. FIRE FIGHTING MEASURES

**Flammability:**

**Autoignition temperature:** Not determined.

**Flammability Limits in Air:**

**Flammable limits in air - lower (%):** Not applicable

**Flammable limits in air - upper (%):** Not applicable

**Suitable extinguishing media:** Foam, Water, Carbon dioxide (CO<sub>2</sub>), Dry chemical, Alcohol resistant foams are preferred if available.

**Unsuitable extinguishing media:** Do not use water, if fire is caused by an electrical short circuit.

**Special protective equipment for firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**Under fire conditions:** Cool containers / tanks with water spray. Water mist may be used to cool closed containers. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.

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## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : Put on appropriate personal protective equipment. Spillages may be slippery. Clear up spillages. The molten polymer may remain hot for some time due to low thermal conductivity. Use care when disposing of molten mass. Do not breathe vapors or fumes that may be evolved during processing.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental Precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### 6.3 Methods and materials for containment and cleaning up.

- Spill** : Vacuum or sweep up material and place in a container for recuperation or disposal. Avoid dust generation.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

## 7. HANDLING AND STORAGE

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8).

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**Advice on general occupational hygiene** : Adequate ventilation and cleanliness must be employed in the processing area. Area should be controlled using good occupational hygiene practices.  
Accumulation of the dust may represent a fire and explosion hazard at sufficient concentrations. Remove ignition sources. Beware of electrostatic charges.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

**Occupational exposure limits** : No exposure limit value known.

### 8.2 Exposure controls

**Appropriate engineering controls** : Good general ventilation (typically 10 air changes per hour) should be used.  
Provide for appropriate exhaust ventilation and dust collection at machinery.  
Provide exhaust ventilation at places where dust is formed.

#### Individual protection measures

**Hygiene measures** : Wash hands before eating and at the end of the working period.

**Eye/face protection** : Not required under normal conditions of uses. Safety eyewear should be used when there is a likelihood of exposure. Recommended: Safety glasses with side shields when working with molten material.

#### Skin protection

**Hand protection** : Protective gloves are required when handling hot polymer.

**Other skin protection** : Appropriate footwear and additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. A safety shower and washing facilities should be available.

**Respiratory protection** : Not required under normal conditions of uses. In the case of respirable dust and/or fumes, use self-contained breathing apparatus. If respirators are used, a program should be instituted to assure compliance with OSHA standard (OSHA Respiratory Protection Program Guidelines).

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                          |                              |
|--------------------------|------------------------------|
| Physical state           | : Solid                      |
| Appearance               | : Opaque, strand/string      |
| Color                    | : varies                     |
| Odor                     | : Slight                     |
| pH                       | : Not applicable             |
| Boiling Point            | : Not available              |
| Flash point              | : Not applicable             |
| Evaporation rate         | : Not applicable             |
| Flammability             | : Non-flammable              |
| Autoignition temperature | : Not determined             |
| Vapor pressure           | : Not available              |
| Vapor density            | : Not available              |
| Relative density         | : $\geq 1,27 \text{ g.cm}^3$ |
| Solubility(ies)          | : Insoluble in water         |

## 10. PHYSICAL AND CHEMICAL PROPERTIES

**Reactivity:** No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability:** Stable under recommended storage conditions.

**Conditions to avoid:** Temperatures above 572°F (300°C). Avoid keeping polymer molten for excessive periods of time at elevated temperatures. Prolonged exposure will cause polymer degradation.

**Materials to avoid:** Oxidizing agents, Strong bases.

**Hazardous decomposition products:** Burning produces obnoxious and toxic fumes, Acetaldehyde, Carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>)

**Possibility of hazardous reactions:** None under normal use conditions.

## 11. TOXICOLOGICAL INFORMATION

### Information on the likely routes of exposure

|            |  |
|------------|--|
| Inhalation | : Combustion products may be irritant;<br>High concentration of dust may be irritant to the respiratory tract. |
|------------|--|

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|   |   |
|---|---|
| <b>Ingestion</b>  | : Expected to be a low ingestion hazard.  |
| <b>Skin contact</b>   | : May cause physical abrasion in contact with skin.<br>Molten polymer will adhere to the skin causing deep thermal burns. |
| <b>Eye contact</b>  | : May cause physical abrasion in contact with eyes.   |
| <b><u>Potential acute health effects</u></b>  |   |
| <b>Inhalation</b>   | : No known significant effects or critical hazards.   |
| <b>Ingestion</b>  | : No known significant effects or critical hazards.   |
| <b>Skin contact</b>   | : No known significant effects or critical hazards.   |
| <b>Eye contact</b>  | : No known significant effects or critical hazards.   |
| <b><u>Symptoms related to physical, chemical and toxicological characteristics</u></b>            |   |
| <b>Inhalation</b>   | : No specific data.   |
| <b>Ingestion</b>  | : No specific data.   |
| <b>Skin contact</b>   | : No specific data.   |
| <b>Eye contact</b>  | : No specific data.   |
| <b><u>Delayed and immediate effects and chronic effects from short and long term exposure</u></b> |   |
| <b><u>Short term exposure</u></b>   |   |
| <b>Potential immediate effects</b>  | : Not available.  |
| <b>Potential delayed effects</b>  | : Not available.  |
| <b><u>Long term exposure</u></b>  |   |
| <b>Potential immediate effects</b>  | : Not available.  |
| <b>Potential delayed effects</b>  | : Not available.  |
| <b>General</b>  | : No known significant effects or critical hazards.   |
| <b>Carcinogenicity</b>  | : No known significant effects or critical hazards.   |
| <b>Mutagenicity</b>   | : No known significant effects or critical hazards.   |
| <b>Teratogenicity</b>   | : No known significant effects or critical hazards.   |
| <b>Fertility effects</b>  | : No known significant effects or critical hazards.   |

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity effects:** Not Available

**Persistence and degradability:** Not Available

**Bioaccumulation:** Not Available

**Mobility:** Insoluble in water

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## 13. DISPOSAL CONSIDERATIONS

### Product

**Methods of disposal:** Like most thermoplastics, the product can be recycled. Can be landfilled or incinerated, when in compliance with local regulations.

**Hazardous waste:** Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

### Packaging

**Methods of disposal:** The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions:** This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

THE COMPANY HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION.

## 14. TRANSPORT INFORMATION

The substance is not subject to transport regulations on hazardous goods included in ADR (road transport), RID (rail transport), IMDG (marine transport) and ICAO/IATA (air transport).

|                                   |                  |
|-----------------------------------|------------------|
| 14.1 UN number                    | : Not applicable |
| 14.2 UN proper shipping name      | : Not applicable |
| 14.3 Transport Hazards Classes    | : None           |
| 14.4 Packing Group                | : Not applicable |
| 14.5 Environmental hazards        | : Not applicable |
| 14.6 Special precautions for user | : None           |

### U.S. Department of Transportation (DOT):

**Proper shipping name:** None  
**Hazard class:** Not regulated.  
**UN-No:** None  
**Packing group:** None

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## 15. REGULATORY INFORMATION

(not meant to be all inclusive - selective regulations represented)

Regulatory requirements are subject to change and may differ between locations. It is the User's responsibility to ensure that all activities comply with all federal, state or provincial and local laws and regulations. The following specific information is made for the purpose of complying with numerous national, federal, state or provincial, and local laws and regulations. See other sections for health and safety information.

### U.S. REGULATIONS

**TSCA Inventory List:** Not Listed  
Sara 313 title III: Not Listed

### STATE REGULATIONS

California Proposition 65: Not Listed

### INTERNATIONAL INVENTORIES

**Canada DSL Inventory List:** Not Listed  
**REACH/EU EINECS List:** Components are in compliance with and/or are listed.  
**Japanese inventory (ENCS):** Not Listed  
**Australia (AICS):** Not Listed  
**Korean chemical inventory:** Not Listed  
**Philippines (PICCS) inventory:** Not Listed  
**China inventory of existing chemical substances list:** Not Listed  
**Taiwan Chemical Substance inventory (TCSI):** Not Listed

## 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

**Label information:** American Filament PCTG Filament

**Date Prepared:** 03/11/2025.

**Recommended restrictions:** None  
**Prepared by:** American Filament LLC

### **NOTICE REGARDING APPLICATION RESTRICTIONS:**

The company does not recommend any of its products, including samples, for use: (A) in any application which is intended for any internal contact with human body fluids or body tissues (B) as a critical component in any medical device that supports or sustains human life; and (C) specifically pregnant women or in any applications designed specifically to promote or interfere with human reproduction. Components of products intended for human or animal consumption.

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