

## SECTION 1: Identification

### 1.1. Identification

Product form : Round thermoplastic rod  
Product code : Atomic Filament – PETG based 3D Filament

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Monofilament for use in 3D printers as a consumable.

### 1.3. Details of the supplier of the safety data sheet

Crunchtech, Inc. (dba Atomic Filament)  
601 Sroufe St – Suite 700  
Ligonier, IN 46767

### 1.4. Emergency telephone number

Emergency number : (818) 583-0004

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

#### GHS-US classification

Not classified

### 2.2. Label elements

#### GHS-US labeling

No labeling applicable

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

**Co-polyester resin / CAS# 25038-91-9**

Full text of H-phrases: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : If you feel unwell, seek medical advice.  
First-aid measures after inhalation : Respiratory problems: consult a doctor/medical service.  
First-aid measures after skin contact : Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.  
First-aid measures after eye contact : Direct contact with the eyes is likely to be irritating. Rinse eyes with water as a precaution. If eye irritation persists: Get medical advice/attention.  
First-aid measures after ingestion : Get medical advice/attention if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.  
Symptoms/injuries after skin contact : Unlikely to cause harmful effects. ON HEATING: Burns.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Foam, Water, Carbon dioxide (CO<sub>2</sub>), Dry chemical, Alcohol resistant foams are preferred if available. General-purpose synthetic foams (including AFFF) or protein foams may function, but much less effectively.

Unsuitable extinguishing media : None known.

### 5.2. Special hazards arising from the substance or mixture

Reactivity : The product is non-reactive under normal conditions of storage and transport. Workers should be protected from the possibility of contact with molten material during fabrication.

### 5.3. Advice for firefighters

No additional information available

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Protective equipment : Safety glasses. Gloves.

#### 6.1.2. For emergency responders

Protective equipment : Protective gloves. Safety glasses.

### 6.2. Environmental precautions

Avoid release to the environment.

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

For containment : Collect spillage.

Methods for cleaning up : On land, sweep or shovel into suitable containers.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Use personal protective equipment as required. Avoid contact with skin and eyes. Low hazard for usual handling. Workers should be protected from the possibility of contact with molten material during fabrication.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Store at temperatures not exceeding 50 °C/ 122 °F. Keep cool. No special restrictions on storage with other products.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

Engineering Measures : Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Provide appropriate exhaust ventilation at places where fumes are formed during use. DO NOT exceed products operational temperature range.

Exposure limits: None established. 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.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Plastic rod coiled on a spool.

Color	: Variable in colour, depending on the composition
Odor	: Slight to no odor
Odor threshold	: No data available
pH	: No data available
Melting point / Range	: 190C-270C, Tg (Glass Transition Temperature): 78C
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Fine dust dispersed in air may ignite
Explosion limits	: Not applicable
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Specific Gravity	: > 1(density: 1.27g/ml (26 °C))
Relative vapor density at 20 °C	: No data available
Solubility	: Insoluble in water.
Log Pow	: No data available
Auto-ignition temperature	: 454C
Decomposition temperature	: 330C
Viscosity, kinematic	: Not applicable

## 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Burning produces obnoxious and toxic fumes, Carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>). Thermal decomposition may produce other hazardous organic compounds during combustion. Persons exposed to these products should wear a personal breathing apparatus.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: This product depending on color may contain titanium dioxide (Cas. No. 13463-67-7) and/or carbon black (Cas. No. 1333-86-4) both of which have been characterized by IARC as possibly carcinogenic to humans (Group 2B). These substances have NOT been characterized as potential carcinogens by either NTP or OSHA. This product mixture is encapsulated in thermoplastic, and is not in respirable form. Therefore, the risk is considered to be minimal, to the point where the hazard is negligible.

Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after skin contact	: Unlikely to cause harmful effects. ON HEATING: Burns.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

### 12.2. Persistence and degradability

Inherently biodegradable under industrial composting conditions.

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport

### TDG

No additional information available

### Transport by sea

No additional information available

### Air transport

No additional information available

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

### 15.2. International regulations

#### CANADA

No additional information available

#### EU-Regulations

No additional information available

## National regulations

Listed on IARC (International Agency for Research on Cancer)

This product may contain titanium dioxide (Cas. No. 13463-67-7) and/or carbon black (Cas. No. 1333-86-4) both of which have been characterized by IARC as possibly carcinogenic to humans (Group 2B). These substances have NOT been characterized as potential carcinogens by either NTP or OSHA. This product mixture is encapsulated in thermoplastic, and is not in respirable form. Therefore, the risk is considered to be minimal, to the point where the hazard is negligible.

## 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the State of California to cause cancer, birth defects, and/or other reproductive harm.

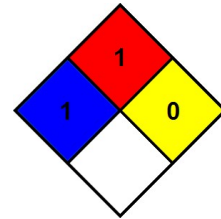
## SECTION 16: Other information

Revision date : 04/01/2019

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard : 1 - Must be preheated before ignition can occur.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



### HMIS III Rating

Health : 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal Protection : B

B - Safety glasses, Gloves

CRUNCHTECH, INC. (dba ATOMIC FILAMENT)

*The SDS and the information contained herein are offered to you in good faith as reliable. We have reviewed the information (much of which we have received from outside sources) on this form. We believe it to be as stated but cannot guarantee its accuracy. Health and safety precautions may not be adequate for all individuals under all circumstances and situations. Statements are given without warranty, expressed or implied, and we assume no responsibility for any loss, damage, or expense arising from their issue.*