

# *Material Safety Data Sheet*

## 1. COMPANY IDENTIFICATION

**Product Name**                      PETG filament  
**Product Use**                        Printing material for XYZprinting 3D printer  
**Company**                              XYZprinting, Inc.  
**Address**                                No.147, Sec. 3, Beishen Rd., Shenkeng Dist., New Taipei City,  
    Taiwan (R.O.C.)  
**Information Phone No.**            886-2-7705 8001  
**Emergency Phone No.**            886-2-7705 8001

## 2. HAZARD IDENTIFICATION

### Potential health effects

**Eye contact**                        Contact with eyes may cause irritation.  
**Skin contact**                        Substance may cause slight skin irritation.  
**Ingestion**                            Ingestion may cause gastrointestinal irritation, nausea, vomiting and  
    diarrhoea.  
**Target organ effects**              There were no target organ effects noted following ingestion or  
    dermal exposure in animal studies.  
**Sensitization**                        Did not cause sensitization on laboratory animals  
**Specific hazards**                    No information available  
**Environmental precautions**      Not determined See Section 12 for more information.  
**Flammability**                        Fine dust dispersed in air may ignite.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

| Substance Name  | CAS Number  | Concentration(%) | Classification          |                                  |
|---|-------------|------------------|-------------------------|----------------------------------|
|   |             |                  | Directive<br>67/548/EEC | Regulation<br>EC No<br>1272/2008 |
| Neopentylglycol-<br>ethyleneglycol<br>terephthalate copolymer | 026780-49-4 | 100              | Not Classified          | Not<br>Classified                |

## 4. FIRST AID MEASURES

**Eye contact**                        Rinse immediately with plenty of water, also under the eyelids, for at least 15  
    minutes. Call a physician immediately.  
**Skin contact**                        Rinse immediately with plenty of water for at least 15 minutes. If skin

irritation persists, call a physician. Cool skin rapidly with cold water after contact with hot polymer.

**Inhalation**

Move to fresh air. Call a physician immediately.

**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.

**Notes to physician**

Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Flammability**

Non-flammable

**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.

**Extinguishing media which must not be used for safety reasons**

No information available

**Hazardous decomposition products**

Burning produces obnoxious and toxic fumes Aldehydes Carbon monoxide (CO) carbon dioxide (CO<sub>2</sub>)

**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 spray water. Water mist may be used to cool closed containers.

**Other information**

Fine dust dispersed in air may ignite. Risks of ignition followed by flame propagation or secondary explosions shall be prevented by avoiding accumulation of dust, e.g. on floors and ledges.

**6. ACCIDENTAL RELEASE MEASURES**

**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 dust is formed.

**Control parameters**

None

**7. PERSONAL PROTECTIVE EQUIPMENT**

|                                 |   |
|---------------------------------|---|
| <b>Eye protection</b>           | Safety glasses with side-shields. Goggles.  |
| <b>Skin and body protection</b> | Impervious clothing.  |
| <b>Respiratory protection</b>   | Respirator must be worn if exposed to dust. Wear respirator with dust filter. Respiratory protection is needed if any of the exposure limits in Section 2 are exceeded. Consult an industrial hygiene professional prior to respirator selection and use. Use a positive-pressure air supplied 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.<br><b>WARNING:</b> Air purifying respirators do not protect workers in oxygen-deficient atmospheres. |
| <b>Hand protection</b>          | Preventive skin protection.   |
| <b>Hygiene measures</b>         | Avoid contact with skin, eyes and clothing.   |
| <b>Exposure limits</b>          | See Section 2.  |

**8. HANDLING AND STORAGE**

|                             |  |
|-----------------------------|--|
| <b>Safe handling advice</b> | Avoid contact with skin and eyes. Avoid dust formation. Workers should be protected from the possibility of contact with molten material during fabrication. Low hazard for usual industrial or commercial handling. Use personal protective equipment. See Section 8. |
| <b>Storage</b>              | Store in cool place. Keep at temperatures below 122F (50 °C).<br>No special restrictions on storage with other products  |
| <b>Precautions</b>          | No special precautions required  |

**9. EXPOSURE CONTROLS MEASURES**

|                             |   |
|-----------------------------|---|
| <b>Engineering measures</b> | 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 dust is formed. |
| <b>Control parameters</b>   | None  |

**10. PERSONAL PROTECTIVE EQUIPMENT**

|                                 |   |
|---------------------------------|---|
| <b>Eye protection</b>           | Safety glasses with side-shields. Goggles.  |
| <b>Skin and body protection</b> | Impervious clothing.  |
| <b>Respiratory protection</b>   | Respirator must be worn if exposed to dust. Wear respirator with dust filter. Respiratory protection is needed if any of the exposure limits in |

Section 2 are exceeded. Consult an industrial hygiene professional prior to respirator selection and use. Use a positive-pressure air supplied 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.

**WARNING:** Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

|                         |   |
|-------------------------|---|
| <b>Hand protection</b>  | Preventive skin protection.                 |
| <b>Hygiene measures</b> | Avoid contact with skin, eyes and clothing. |
| <b>Exposure limits</b>  | See Section 2.                              |

## **11. PHYSICAL AND CHEMICAL PROPERTIES**

|                                     |                       |
|-------------------------------------|-----------------------|
| <b>Appearance</b>                   | Spool, string, strand |
| <b>Color</b>                        | White                 |
| <b>Odor</b>                         | Slight                |
| <b>pH</b>                           | Not applicable        |
| <b>Vapor pressure</b>               | Not determined        |
| <b>Vapor density</b>                | Not determined        |
| <b>Evaporation rate</b>             | Not determined        |
| <b>Density</b>                      | >1.29 g/cc            |
| <b>Boiling point/range</b>          | Not applicable        |
| <b>Water solubility</b>             | Insoluble             |
| <b>Solubility in other solvents</b> | None known            |

## **12. STABILITY AND REACTIVITY**

|   |  |
|---|--|
| <b>Stability</b>                        | Stable under recommended storage conditions  |
| <b>Conditions to avoid</b>              | No specific data.  |
| <b>Materials to avoid</b>               | Acetic Anhydride, acetone, aniline, benzene, chloroform, chromic acid, cyclohexanone, dimethylformamide, dioxane, ethyl acetate, phenol, tetrahydrofuran. Reactive with strong oxidizing agents, as well as strong acids and caustic will decompose polyester. |
| <b>Hazardous decomposition products</b> | Burning produces obnoxious and toxic fumes. Aldehydes. Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ).  |

### **13. TOXICOLOGICAL INFORMATION**

|                                     |  |
|-------------------------------------|--|
| <b>Principle Routes of Exposure</b> | Not available.   |
| <b>Acute toxicity</b>               | Not available.   |
| <b>Local effects</b>                | Not available.   |
| <b>Long term toxicity</b>           | Not available.   |
| <b>Mutagenic effects</b>            | Not available.   |
| <b>Reproductive toxicity</b>        | Not available.   |
| <b>Carcinogenic effects</b>         | Not available.   |
| <b>Target organ effects</b>         | There were no target organ effects noted following ingestion or dermal exposure in animal studies. |
| <b>Skin</b>                         | Not available.   |
| <b>Ingestion</b>                    | Not available.   |

### **14. ECOLOGICAL INFORMATION**

|                            |                   |
|----------------------------|-------------------|
| <b>Mobility</b>            | No data available |
| <b>Bioaccumulation</b>     | No data available |
| <b>Ecotoxicity effects</b> | No data available |

### **15. DISPOSAL CONSIDERATIONS**

|                                      |   |
|--------------------------------------|---|
| <b>Product Methods of disposal</b>   | Like most thermoplastics, the product can be recycled. Can be landfilled or incinerated, when in compliance with local regulations.   |
| <b>Hazardous waste</b>               | Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.   |
| <b>Packaging Methods of disposal</b> | 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.                                  |
| <b>Special precautions</b>           | 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. |

**16. TRANSPORT INFORMATION**

**U.S. Department of Transportation (DOT)**

**Proper shipping name** Not regulated as a hazardous material.

**IMDG**

**Proper shipping name** None

**Hazard class** Not regulated.

**UN/Id No.** None

**Packing group** None

**ICAO/IATA**

**Proper shipping name** None

**Hazard Class** Not regulated.

**Packing group** None

**17. REGULATORY INFORMATION**

**Safety, health and environmental regulations/legislation specific for the substance or mixture EU**

**Regulation (EC) No. 1907/2006 (REACH)**

**List of Substances of Very High Concern for Authorization:** None of the components are listed.

**Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles:** Not applicable

**Chemical Safety Assessment:** Not available

**18. OTHER INFORMATION**

None