



SAFETY DATA SHEET - Build Series TPU

Section 1:

Identification of the substance and Preparation

1.1: Product Identifiers

Product name: MatterHackers MH Build Series TPU

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

Identified uses: 3D printing filament. Material for 3D printing FDM applications.

1.3: Details of the supplier of the Safety Data Sheet

Company identification:

MatterHackers inc.

20321 Valencia Circle

Lake Forest, CA

92630

Email: support@matterhackers.com

Section 2:

Composition/Information on ingredients

Chemical Character: Epsilon-caprolactone(CAS NO.: 502-44-3)

Viscosity-average molecular weight: 60000

Section 3:

Hazard(s) identification

Hazard designation: XI

Hazard designation: IV

Information pertaining to particular dangers for man and environment:

Long-term exposure can make skin dry, chapped, induced dermatitis.

There are less harmful to the environment, air, water, environment and water pollution.

Deflagration hazard: It can burn.

----- **Section 4:**

First aid measures

4.1: Description of first aid measures

General Advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing.

Inhalation: Supply fresh air. If required, provide artificial respiration. Keep patient warm.

Consult doctor if symptoms persist.

Skin contact: Wash skin with plenty of water. With prolonged skin irritation, seek first aid or medical attention.

After contact with the molten product, cool rapidly with cool water, do not pull solidified product from the skin and seek medical treatment.

Eye contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician.

Ingestion: If swallowed, seek medical attention.

4.2: Most important symptoms and effects, both acute and delayed

No further relevant information available

4.3: indication of medical attention and special treatment needed

No further relevant information available

Firefighting measures

5.1: Extinguishing media: CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

5.2: Special hazards arising from the substance or mixture

Can be released in case of fire:

Carbon Monoxide (CO)

Carbon Dioxide (CO₂)

Accidental release measures

6.1: Personal precautions, protective equipment and emergency procedures: None Needed.

6.2: Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

6.3: Methods and materials for containment and cleaning up: Vacuum or sweep up and place in a standard disposal container. Avoid the use of air jets.

Handling and storage

7.1: Precautions for safe handling

General Handling: No smoking, open flames or sources of ignition in handling and storage area. Good housekeeping and controlling of dusts are necessary for safe handling of product. Avoid breathing process fumes. Workers should be protected from the possibility of contact with molten resin. Do not get molten material in eyes, on skin or clothing. Protect against electrostatic charges

7.2: Conditions for safe storage, including any incompatibilities storage

Store in accordance with good manufacturing practices, in a cool place and away from direct sunlight. Protect from humidity and keep away from water.

Exposure controls/personal protection

8.1: Control parameters

None established.

8.2: Exposure Controls:

Exposure Guidelines: Fiber dust should be considered a nuisance dust, i.e. particulates (not otherwise classified):ACGIH Threshold Limit Value:10mg/m³ total dust; 3-mg/m³ respirable dust.

Engineering Controls: Local exhaust recommended to reduce exposure to fiber dust.

Specific Personal Protective Equipment:

Respiratory: For operations where inhalation exposure can occur, a NIOSH approved dust mask/respirator is recommended.

Eye: For operation where eye contact can occur, eye protection such as goggles or safety glasses is recommended.

Physical and chemical properties

9.1: Information on basic physical and chemical properties

General Information:

Form: Solid

Smell: Not determined.

Change in condition:

Melting point: 176°C

Ignition temperature: Not determined

Decomposition Temperature: 252°C

Danger of explosion: Not determined

Vapor pressure: Not determined

Density at 25 °C: 1.21g/cm³

Solubility (Water): Not determined

Stability and reactivity

10.1: Reactivity

Reacts with strong acids and oxidizing agents

10.2: Chemical stability

Stable

10.3: Possibility of hazardous reactions

This product is not capable of dust explosion in the form supplied. Enrichment with fine dust causes risk of dust explosion.

10.4: Conditions to Avoid

No further relevant information available.

10.5: Incompatible Materials

Strong acids, strong oxidizing agents

10.6: Hazardous decomposition products

None known.

Toxicological information

Acute toxicity:

LD/LC50 values that are relevant for classification:

Oral LD50 4290mg/kg(rat)

Dermal LD50 5990uL/kg(rabbit)

Primary irritant effect: Irritant for skin and mucous membranes.

On skin: Irritant effect.

On eye: No sensitizing effect known.

Additional information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. No classification data on carcinogenic properties of this material is available from the EPA IAPV NTP OSHA or ACGIH.

----- **Section 12:**

Ecological information

Water hazard class 1 (self assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

Do not allow material to be released to the environment without proper governmental permits.

----- **Section 13:**

Disposal considerations

Product: Dispose of in a manner consistent with federal, state, and local regulations. Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations.

Uncleaned package: Disposal must be made according to official regulations.

----- **Section 14:**

Transport information

No dangerous according to ADR/RID GGVS/GGVE IMDG/RID ICAO-TI.

Regulatory information

International:

Canada :DSL/NDSL: Included on the Canadian Domestic Substance List.

Canada: WHMIS: Not a controlled product.

Europe: Not classified as dangerous according to Directive 1999/45/EC.

UN: Does not appear on the Dangerous Goods List.

Federal(U.S.):

EPA: Not regulated.

OSHA: Not hazardous under the criteria of Occupational Safety and Health

Standard 29 CFR 1910 Subpart Z.

State:

CA: Proposition 65: Does not contain chemicals known to the State of California to cause cancer or reproductive toxicity.

16: Other information

The information herein is based on our present knowledge and given in good faith, but no warranty, express or implied, is made.

Contact support@matterhackers.com for more information..