

Material Safety Data Sheet BLUEPRINTED TPU

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Version 1.1

1. Company Information

Company	Blueprinted
Address	314/14 Lexington Drive, Bella Vista, 2153, NSW, AU
Emergency contact number	+61 475 945 083
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Email address	info@bp3d.co
Info webpage	blueprinted.co
Product Name	TPU
Recommended Usage	For use in FDM 3D printers within the recommended extrusion range indicated on the box.

2. Composition / Information on Ingredients

Chemical Name	Polyurethane elastomer [Aromatic thermoplastic]
Content	>95% TPU (Additives/Colorants <5%)
CAS no.	26375-23-5
Impurities contributing to hazard	None

3. Hazard Identification

Most Important Hazards	None
Adverse Human Health Effects	None
Environmental Effects	None
Physical and Chemical Hazards	None

4. First Aid Measures

Inhalation	In the case of gases involving melted plastics, fumes may cause irritation. Extrude in a well ventilated area only. If inhaled, breath fresh open air to reduce irritation
Skin	Molten plastic can cause burns and irritations to the skin. Rinse under cold water. Plastic which isn't hot or molten, is unlikely to cause irritation to the skin.
Eyes	Direct contact with gases produced by molten plastic can cause irritation. Extrude in a well ventilated area only. Flush eyes with cold water.
Ingestion	If excessive lengths of plastic ingested, seek medical attention.

5. Fire-Fighting Measures

Extinguishing Media	Water, foam or chemical powder
Special fire-fighting procedure	Certified self-contained breathing and full fire protective gear.
Fire and explosion hazards	None

6. Accidental Release Measures

Personal precautions	Lose material may become a slip hazard, sweep and store or dispose of accordingly.
Environment precautions	Do not wash down a sink or toilet.

7. Handling and Storage

Handling	Extrude within the recommended temperatures. Keep clean to prevent build-up of any dust.
Storage	Store in a clean, cool and dry place. Protect from direct sunlight.

8. Exposure Controls / Personal Protection

Threshold Limit Value	None
Ventilation	Keep in an open and well ventilated area. A PETA filter on the FDM machine is recommended.
Eye Protection	Wear safety glasses.
Respiratory Protection	Wear masks to protect against any fumes and dust
Skin Protection	When dealing with molten plastic, wear gloves to protect hands from burns

9. Physical and Chemical Properties

Appearance	Smooth and flexible 1.75/2.85mm thick string.
Odour	Light smell
Melting Temperature	200-270°C
Solubility	Insoluble in water
Specific gravity	1.1g/cc

10. Stability and Reactivity

Flammability	Combustible if excessive heat reached.
Flash point	280°C
Auto-ignition Temperature	300°C
Reactivity to water	No
Stability	Stable/non-reactive under normal handling and storage conditions.
Dust Explosion	Possible if storage measures aren't taken and excessive dust builds up.
Thermal Decomposition Gases	CO, CO ₂ , NO _x , and AN

11. Toxicological Information

Irritation	Fumes or vapours generated from decomposing plastics may be irritant to eyes.
Acute oral toxicity	None determined
Mutagenicity	None determined

12. Ecological Information

To avoid being consumed by ocean species or birds. Disposal of any plastic waste to the ocean, water supply or any open land is strictly prohibited. Fines by your local council or county may apply.

13. Disposal Considerations

If possible, please recycle. Otherwise controlled landfill or incineration by your local council or country is required. Inadequate incineration may generate toxic gases such as CO, CO₂ and AN.

14. Transport Information

International Air Transportation Association Classification - Blueprinted plastics are not classed as hazardous for transport under IATA regulations.

International Maritime Organisation – Blueprinted plastics are not classed as hazardous for transport under IMDG regulations.

15. Regulatory Information

Not available.

16. Other Information

Disclaimer: The information provided by Blueprinted in this material safety data sheet is believed by the manufacturer to be accurate. Blueprinted holds no guarantees or warranties on any of the information provided.