spool

PLA & PETG 3D printing filament. 1.75 mm, 1 kg spools.

SAFETY DATA SHEET

PLA Filament

Polylactic acid (PLA) · FDM / FFF filament · 1.75 mm

MATERIAL	DIAMETER	NET WEIGHT	REVISION	DOCUMENT
PLA	1.75 mm ± 0.02	1 kg	1.0 · Jun 2026	SPL-MSDS-PLA

1 · IDENTIFICATION

Product name	**PLA 3D Printing Filament**
Material	**Polylactic acid (PLA)**
Product use	**FDM / FFF 3D printing material**
Brand	**spool**
Supplier	**spool · spool3d.com.au**
Filament diameter	**1.75 mm ± 0.02 mm**
Net weight	**1 kg**

2 · HAZARD IDENTIFICATION

GHS classification

Not classified as hazardous according to GHS criteria.

Signal word

None (not applicable).

Hazard statements

- Not classified as hazardous under normal conditions of use.
- Molten material may cause thermal burns.
- Processing at elevated temperatures may generate irritating fumes.

Precautionary statements

- Avoid contact with molten material.
- Ensure adequate ventilation during printing operations.
- Keep away from open flames and ignition sources.

3 · COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS NUMBER	CONCENTRATION
Polylactic acid (PLA)	26100-51-6	≥ 98%
Colourants & additives	Proprietary	≤ 2%

4 · FIRST AID MEASURES

Inhalation

Move the affected person to fresh air. Seek medical attention if symptoms persist.

Skin contact

For molten-material burns, cool the affected area immediately with cold water. Do not remove solidified material from skin. Seek medical attention.

Eye contact

Flush eyes with clean water for at least 15 minutes. Obtain medical attention if irritation continues.

Ingestion
Not considered a likely route of exposure. Seek medical advice if discomfort occurs.

5 · FIRE-FIGHTING MEASURES

Suitable extinguishing media

- Water spray
- Carbon dioxide (CO_2)
- Dry chemical powder
- Foam

Specific hazards
Combustible solid. Thermal decomposition may produce carbon monoxide (CO), carbon dioxide (CO_2) and organic vapours.

Protective equipment
Wear self-contained breathing apparatus and protective clothing.

6 · ACCIDENTAL RELEASE MEASURES

Personal precautions
Avoid slipping hazards caused by spilled pellets or filament.

Environmental precautions
No special environmental hazards known.

Cleanup methods
Collect mechanically and dispose of according to local regulations.

7 · HANDLING & STORAGE

Handling

- Avoid excessive heat exposure.
- Use adequate ventilation during processing.
- Avoid breathing fumes generated during printing.

Storage

- Store in a cool, dry location.
- Keep sealed to prevent moisture absorption.
- Avoid direct sunlight.
- If moisture is absorbed, pre-dry filament at 45–55 °C for 4–6 hours before printing.

8 · EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls
General room ventilation is normally sufficient.

Eye protection
Safety glasses recommended.

Hand protection
Heat-resistant gloves when handling hot equipment or molten material.

Respiratory protection
Normally not required; use local exhaust ventilation during prolonged printing.

9 · PHYSICAL & CHEMICAL PROPERTIES

Appearance	**Solid filament**
Colour	**Various colours**
Odour	**Slight**
Density	**~1.24 g/cm³**
Melting temperature	**~210 °C**
Recommended nozzle temperature	**200–230 °C**
Recommended bed temperature	**45–65 °C**
Glass transition temperature	**~60 °C**
Vicat softening temperature	**~65 °C**
Solubility	**Insoluble in water**

10 · STABILITY & REACTIVITY

Chemical stability
Stable under normal storage and handling conditions.

Conditions to avoid
- Excessive heat
- Open flames
- Temperatures above 230 °C for extended periods

Incompatible materials
Strong oxidising agents, strong acids and strong alkalis.

11 · TOXICOLOGICAL INFORMATION

Acute toxicity
No known acute toxicity.

Skin irritation
Not expected under normal conditions.

Eye irritation
Mechanical irritation possible.

Carcinogenicity
Not classified as carcinogenic.

Reproductive toxicity
No known effects.

12 · ECOLOGICAL INFORMATION

Ecotoxicity
No significant ecological hazards known.

Biodegradability
PLA is biodegradable under industrial composting conditions.

Bioaccumulation
Not expected.

13 · DISPOSAL CONSIDERATIONS

Dispose of according to local regulations. Recommended methods:

- Recycling where available
- Controlled incineration
- Industrial waste disposal

14 · TRANSPORT INFORMATION

UN number	**Not regulated**
Hazard class	**Not regulated**
Packing group	**Not regulated**
Marine pollutant	**No**
Dangerous goods	**Not classified for transport**

15 · REGULATORY INFORMATION

COMPLIANT **RoHS 2011/65/EU + (EU) 2015/863 compliant.** REACH compliant. Not classified as hazardous under GHS. RoHS test report ref. UNIB26031912HR-01 — all restricted substances Not Detected (Pass).

16 · OTHER INFORMATION

Issue date	**June 2026**
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Document	**SPL-MSDS-PLA**
Prepared by	**spool**

This Safety Data Sheet is prepared from available technical information and industry knowledge. It is intended as guidance for safe handling, storage, transport and disposal, and is provided without warranty as to suitability for any specific application. © 2026 spool · spool3d.com.au