
SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Product Name: L1001 PLA Printing Filament

Product Description: for fused deposition modeling

Part Number(s)/ Model Number(s):

Model Number	Part Number	Model Number	Part Number
PLA-WHI-01	3PINPL01AA	PLA-WHI-02	3PIEPL01JA
PLA-BLA-01	3PINPL02AA	PLA-BLA-02	3PIEPL02JA
PLA-RED-01	3PINPL03AA	PLA-RED-02	3PIEPL03JA
PLA-ORA-01	3PINPL04AA	PLA-ORA-02	3PIEPL04JA
PLA-PUR-01	3PINPL05AA	PLA-PUR-02	3PIEPL05JA
PLA-BLU-01	3PINPL06AA	PLA-BLU-02	3PIEPL06JA
PLA-GRE-01	3PINPL07AA	PLA-GRE-02	3PIEPL07JA
PLA-YEL-01	3PINPL08AA	PLA-YEL-02	3PIEPL08JA
PLA-PIN-01	3PINPL09AA	PLA-PIN-02	3PIEPL09JA
PLA-SIL-01	3PINPL10AA	PLA-SIL-02	3PIEPL10JA
PLA-GOL-01	3PINPL11AA	PLA-GOL-02	3PIEPL11JA
PLA-TRA-01	3PINPL12AA	PLA-TRA-02	3PIEPL12JA

Date of issue/Revision Date: November, 19, 2022

Manufacturer/Distributor:

3PI Tech Solutions
5600 River Rd, Suite 800,
Rosemont, IL 60018

For More Information, Call:

(Monday-Friday, 8:00 AM– 5:00 PM CST)
Dremel Customer Service
(844) 437-6533

In Case of Emergency, Call:

(24 Hours/Day, 7 Days/Week)
(877) 303-0891

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SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Classification according to Directive 67/548/EEC or 1999/45/EC as amended

This substance does not meet the criteria for classification according to Directive 67/548/EEC as amended.

2.1.2 Classification according to Regulation (EC) No 1272/2008 as amended

This substance does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

2.2 Label elements

Not applicable.

2.3 Other hazards

Not likely to be an irritant in the solid form. Danger of burns when heated/molten material is handled.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Weight %	Exposure Limits
Poly (lactic acid)	9051-89-2	>90%	None

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 Inhalation: Move to fresh air. Call a physician immediately if irritation persists.

4.1.2 Skin contact: Rinse immediately with plenty of water. If skin irritation persists, call a physician. Cool skin rapidly with cold water after contact with hot polymer.

4.1.3 Eye contact: Rinse immediately with plenty of water. Call a physician immediately.

4.1.4 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.

4.2 Most important symptoms and effects, both acute and delayed

Burns resulted from contacting or handling heated/molten materials

4.3 Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Suitable extinguishing media

Foam. Water. Carbon dioxide (CO₂). Dry chemical. Alcohol resistant foams are preferred if available. General-purpose synthetic foams (including AFFF) or protein foams may function, but much less effectively.

5.2 Special hazards arising from the substance or mixture

No specific hazard.

5.3 Advice for fire fighters

Follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Use standard firefighting procedures and consider the hazards of other involved materials. Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Lab coat. Impervious gloves. Safety glasses with side shields.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.

6.3 Methods and materials for containment and cleaning up

Shovel into suitable container for disposal.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid prolonged contact with skin and eyes. Avoid dust formation. Workers should be protected from the possibility of contact with molten material. Low hazard for usual industrial or commercial handling.

7.2 Conditions for safe storage

Store in a cool, dry, well-ventilated area. Keep away from heat, sparks and flames. Keep containers closed. Avoid moisture contamination. Transferring dry pellets or granules between containers or charging into solvents can cause a build-up of static electricity which can be sufficient to cause fires and/or explosions in the presence of flammable materials. Equipment should provide a means of dissipating any charges that may develop.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Consult local authorities for acceptable exposure limits.

Biological limit values: No biological exposure limits noted for the ingredient(s)

Recommended monitoring procedures: Not available

Derived no-effect level (DNEL): Not available

Predicted no effect concentrations (PNECs): Not available

8.2 Engineering controls

Use local exhaust ventilation to maintain airborne concentrations below the TLV. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it. For guidance on engineering control, measures refer to publications such as the ACGIH current edition of 'Industrial Ventilation, a manual of Recommended Practice.

8.3 Personal protective equipment

Eyes: safety glasses with side-shields

Skin: lab coat

Respiratory: Wear appropriate respirator when ventilation is inadequate.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Personal protective: equipment (Pictograms)



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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Solid
Color:	Various
Odor:	Almost Odorless.
Odor threshold:	Not available
pH:	Not applicable
Melting point/freezing point:	150 °C
Softening temperature:	63 °C
Boiling point:	Not applicable
Flash point:	Not applicable
Evaporation rate:	Not applicable
Flammability:	Not available
Upper/lower flammability or explosive limits:	Not available
Vapor pressure:	Not applicable
Vapor density:	Not applicable
Relative density:	about 1.25 g/cm ³
Solubility:	No available
Partition coefficient (n-octanol/water):	No available
Auto-ignition temperature:	> 350 °C
Decomposition temperature:	> 300 °C
Viscosity:	Not applicable

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

The product is stable.

10.2 Chemical stability

The material is stable under normal conditions.

10.3 Possibility of hazardous reactions

Burning produces obnoxious and toxic fumes. Aldehydes.
Carbon monoxide (CO). Carbon dioxide (CO₂).

10.4 Conditions to avoid

Temperature above 240 °C.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Unlikely under normal industrial use. If the product is heated to temperatures excessively higher than those recommended on the technical data sheet, thermal decomposition is possible. Combustion products may include: carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂ etc.), hydrocarbons, HCN

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Likely routes of exposure

Inhalation: Non-irritating to the respiratory system.

Skin contact: LD₅₀/dermal/rabbit > 2000 mg/kg

Eye contact: May cause physical abrasion in contact with eyes. Molten polymer will cause serious burns to the eyes.

Ingestion: LD₅₀/oral/rat > 5000 mg/kg

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11.2 Symptoms

Dust may irritate throat and respiratory system and cause coughing. Direct contact with eyes may cause temporary irritation.

11.3 Information on toxicological effects

Acute toxicity: Dusts may irritate the respiratory tract, skin and eyes.

Skin corrosion/irritation: Dust may irritate skin.

Serious eye damage/eye irritation: Dust may irritate the eyes. Exposed may experience eye tearing, redness, and discomfort.

Respiratory sensitization: Not classified.

Skin sensitization: Not a skin sensitizer.

Germ cell mutagenicity: Not expected to be mutagenic.

Carcinogenicity: The ingredients of this product are not classified as carcinogenic by ACGIH or IARC, not regulated as carcinogens by OSHA, and not listed as carcinogens by NTP.

Reproductive toxicity: Not classified.

Specific target organ toxicity - single exposure: No data available

Specific target organ toxicity - repeated exposure: No data available

Aspiration hazard: Due to the physical form of the product, it is not an aspiration hazard.

Mixture versus substance information: Not applicable.

Other information: preexisting skin and respiratory conditions, including dermatitis, asthma and chronic lung disease might be aggravated by exposure.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

Does not bio accumulate. Inherently biodegradable.

12.4 Mobility in soil

Not available

12.5 Other adverse effects

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

In accordance with local and national regulations. Do not contaminate ponds, waterways or ditches with chemical or used container. Contact manufacturer if needed.

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SECTION 14: TRANSPORT INFORMATION

ADR

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

ADN

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

This substance/mixture is not intended to be transported in bulk.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture EU**Regulations****Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I**

Not listed.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorizations**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended**

Not listed.

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Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work

Not listed.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding

Not listed.

Other EU regulations

Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances

Not listed.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Not listed.

Directive 94/33/EC on the protection of young people at work

Not listed.

Other regulations

This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

National regulations: Not available.

SECTION 16: OTHER INFORMATION

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