

# ReFill PLA

Same Quality, Different Format!

## 1. Identification of the substance / preparation and of the company

### 1.1 Trade name

ReFill PLA

### 1.2 Use of this product

3D printer filament

### 1.3 Supplier

Filamentive

Bradford Chamber Business Park

Bradford

BD4 8BX

Phone number: +44 (0) 33 33 66 0020

Email: [info@filamentive.com](mailto:info@filamentive.com)

## 2. Hazards Identification

### 2.1 Classification

This product is NOT classified according to 29 CFR 1910.1200 Hazard Communication Standard 2012 or WHMIS 2015.

### 2.2 Label Elements

None

### 2.3 Other Hazards

Danger of burns in contact with hot polymer and hazardous vapors in case of burning

#### **Disclaimer**

The information provided in this datasheet is correct to the best of Filamentive Limited's knowledge and is intended for reference purposes only. The user assumes all responsibility for the use of all information and shall verify quality / properties as required for their specific use case. Filamentive Limited shall not be made liable for any damage, injury or loss induced from the use of materials in any application.

### 3. Composition of Ingredients

#### 3.1 Composition

PLA (Polylactide Resin) - >98%

Pigment - <1%

#### 3.2 CAS Number

9051-89-2

### 4. First Aid Measures

#### 4.1 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 product. Do not peel filament from the skin. Consult a physician.

#### 4.2 After Inhalation

Move to fresh air. Call a physician immediately.

#### 4.3 On 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.

#### 4.4 On Eyes Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes Call a physician immediately.

#### **Disclaimer**

The information provided in this datasheet is correct to the best of Filamentive Limited's knowledge and is intended for reference purposes only. The user assumes all responsibility for the use of all information and shall verify quality / properties as required for their specific use case. Filamentive Limited shall not be made liable for any damage, injury or loss induced from the use of materials in any application.

## 5. Firefighting Measures

### 5.1 Extinguishing media

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 (but much less effectively).

Unsuitable extinguishing media:

None

### 5.2 Special hazards arising from the substance or mixture

During incomplete combustion release of carbon monoxide, carbon dioxide and hydrocarbons.

### 5.3 Advice for fire fighters

As in any fire, wear self-contained breathing apparatus, and full protective gear.

### 5.4 Remark:

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

### 6.1 Personal precautions

Keep away from sources of ignition. Avoid dust formation. Avoid contact with skin and eyes.

### 6.2 Environmental precautions

Do not flush into surface and ground and ground water or sanitary sewer system.

### 6.3 Methods and materials for containment and cleaning up

Shovel into suitable container for disposal.

### 6.4 Reference to other sections

Refer to section (8)

#### **Disclaimer**

The information provided in this datasheet is correct to the best of Filamentive Limited's knowledge and is intended for reference purposes only. The user assumes all responsibility for the use of all information and shall verify quality / properties as required for their specific use case. Filamentive Limited shall not be made liable for any damage, injury or loss induced from the use of materials in any application.

## 7. Handling and Storage

### 7.1 Handling

Avoid contact with skin and eyes. Employees should be protected from the possibility of contact with the molten filament during printing. Use personal protective equipment if necessary. In the process of printing, gases and vapors may be generated which may irritate the respiratory system, eyes and skin. It should be processed in a well-ventilated room.

### 7.2 Conditions for safe storage, including any incompatibilities

Store at a temperature between 10°C and 50°C. Protect from sunlight. Store in a dry place.

## 8. Exposure Controls / Personal Protection

### 8.1 Exposure Control

#### **Appropriate Engineering Controls**

Where possible, local exhaust ventilation and good general room ventilation should be used. Provide adequate exhaust ventilation in places of dust formation.

#### **Individual protection measures, such as personal protective equipment**

##### **Eye Protection**

Tightly fitting safety goggles (EN166).

##### **Hand Protection**

To operate a hot product, heat resistant gloves.

##### **Skin and body protection**

For transport, hot, molten product - heat-resistant protective clothing.

##### **Respiratory Protection**

It is not required under normal conditions of use. In the case of loose dust / fumes use a breathing apparatus.

##### **Exposure Limits**

None established. This material can generate Particulates Not Otherwise Classifiable (PNOC).

#### **Disclaimer**

The information provided in this datasheet is correct to the best of Filamentive Limited's knowledge and is intended for reference purposes only. The user assumes all responsibility for the use of all information and shall verify quality / properties as required for their specific use case. Filamentive Limited shall not be made liable for any damage, injury or loss induced from the use of materials in any application.

## 9. Physical and Chemical Properties

Appearance	Solid Filament
Odour	Odourless
Colour	Based on product grade
Odour threshold	Sweet
pH	Not applicable
Melting point	150-180 °C
Initial boiling point and boiling range	Not applicable
Flash point	Not applicable
Evaporation rate	Not applicable
Flammability (solid, gas)	No information available
Upper / lower flammability or explosive limits	No information available
Vapour pressure	Not applicable
Vapour density	Not applicable
Solubility(ies)	No information available
Partition coefficient (n-octanol/water)	No information available
Auto-ignition temperature	388 °C
Decomposition temperature	250 °C
Viscosity	Not applicable
Explosive properties	Not explosive
Oxidizing properties	Not oxidizing

## 10. Stability

### 10.1 Reactivity:

None expected under conditions of normal use.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

None expected under conditions of normal use.

### 10.4 Conditions to avoid

Temperatures above 230 °C / 446 °F.

### 10.5 Incompatible materials:

Oxidizing agents, Strong bases

#### Disclaimer

The information provided in this datasheet is correct to the best of Filamentive Limited's knowledge and is intended for reference purposes only. The user assumes all responsibility for the use of all information and shall verify quality / properties as required for their specific use case. Filamentive Limited shall not be made liable for any damage, injury or loss induced from the use of materials in any application.

## 10.6 Hazardous decomposition products

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

## 11. Toxicological Information

### 11.1 Information on Toxicological Effects

#### **Principle routes of exposure**

Eye contact, skin contact, inhalation, ingestion.

#### **Acute toxicity**

Not determined.

#### **Local effects**

May cause eye/skin irritation. Product dust may be irritating to eyes, skin and respiratory system. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

#### **Specific effects**

May cause skin irritation and/or dermatitis. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough. Burning produces irritant fumes.

#### **Mutagenic effects**

No data is available.

#### **Reproductive toxicity**

No data is available.

#### **Carcinogenic effects**

No data is available.

#### **Target organ effects**

Not determined.

#### **Ingestion**

No data is available.

#### **Further information**

No information available.

#### **Disclaimer**

The information provided in this datasheet is correct to the best of Filamentive Limited's knowledge and is intended for reference purposes only. The user assumes all responsibility for the use of all information and shall verify quality / properties as required for their specific use case. Filamentive Limited shall not be made liable for any damage, injury or loss induced from the use of materials in any application.

## 12. Ecological Information

### 12.1 Ecotoxicity

It is not expected to be very toxic, but if ingested by birds or aquatic life, can cause adverse effects.

### 12.2 Persistence and degradability

Inherently biodegradable under industrial composting conditions

### 12.3 Bio accumulative potential

No information available.

### 12.4 Mobility in soil

No information available.

## 13. Disposal Considerations

Waste disposal is recommended in accordance with national and local regulations.

## 14. Transport Information

Not regulated.

## 15. Regulatory Information

Not regulated.

## 16. Other Information

The information contained in this safety data sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information provided is only intended as a guide to safe handling, use, processing, storage, transport, disposal and release, and no warranty or quality specification should be taken into account. The information applies only to a specific material and may not be relevant for such material used in combination with other materials or other processes, unless otherwise specified in the text. Although some hazards are described in this document, we cannot guarantee that these are the only hazards that exist.

### **Disclaimer**

The information provided in this datasheet is correct to the best of Filamentive Limited's knowledge and is intended for reference purposes only. The user assumes all responsibility for the use of all information and shall verify quality / properties as required for their specific use case. Filamentive Limited shall not be made liable for any damage, injury or loss induced from the use of materials in any application.