

SAFETY DATA SHEET
TOUGH-PLA



Date: 01.02.23

Version V 1.0

1 PRODUCT AND SUPPLIER INFORMATION

Tradename:

Material 4 Print Tough-PLA

Manufacturer information:

Material 4 Print GmbH & Co. KG
Scheidkamp 13
32584 Löhne
Germany

Recommended Use:

Additive manufacturing

2 RISK IDENTIFICATION

Classification:

According to Regulation (EC) NO 1272/2008: Not classified as a dangerous product

Label Warnings:

None

Other hazards:

Risk of burns from contact with hot polymer. Dangerous fumes when burning.

3 COMPOSITION INFORMATION

Chemical characterization:

This product is based on polyactic acid with additives

4 FIRST AID MEASURES

After inhalation:

Call a doctor if you feel unwell. Provide fresh air. Lay the casualty down, cover and keep warm.

After skin contact:

Molten product can cause severe burns. Solidified product not pull off the skin. After contact with the molten product, cool the affected skin area rapidly with water.

After swallowing:

No effects known. Rinse mouth with water and drink more water. Consult a doctor in

case of complaints.

After eye contact:

Flush with water. Consult a doctor if symptoms persist.

5 FIRE FIGHTING MEASURES

Extinguishing agent:

Water, dry powder, foam, Carbon dioxide (CO₂)

Special protective Equipment:

In case of fire, use respirator mask that is independent from outside air.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and to be used in emergencies procedure:

Ensure adequate ventilation. Wear personal protective equipment

Environmental protection measures:

Do not discharge into drains or rivers.

Methods and material for containment and cleaning up:

Pick up mechanically. Treat the material taken up according to the Disposal section.
Special danger of slipping due to leaking/spilling product.

7 HANDLING AND STORAGE

Handling:

Avoid contact with molten Polymer, generation of dust and electrostatic charging

Storage:

Protect from moisture and UV radiation. Store cool and when not in use keep closed.
Avoid sources of ignition.

8 EXPOSURE AND PROTECTION INFORMATION

Protection and hygiene measures:

Take off contaminated clothing. Wash hands before breaks and at the end of work. Do not eat and drink at work.



Eye/face protection:

Wear Eye/face protection

Handguard:

Tested protective gloves must be worn (DIN EN 374)

Body armor:

Wear suitable protective clothing when working.

Respiratory protection:

In case of insufficient ventilation wear respiratory protection.

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical state:

Filament

Color:

coloured

Autoignition:

Not determined

Flammability:

Fine fust dispersed in air may ignite

10 STABILITY AND REACTIVITY

Reactivity:

If handled and stored as intended, no dangerous reactions will occur.

Chemical stability:

The product is stable when stored at normal ambient temperatures.

Possibility of hazardous reactions:

There are no known dangerous reactions.

Conditions to avoid:

Temperatures above 230°C

Incompatible materials:

Oxidizing agent, Strong bases

Hazardous decomposition products:

In case of fire may be liberated: aldehydes, carbon monoxide, carbon dioxide (CO₂) and nitrogen oxides (NO_x).

11 TOXICOLOGICAL INFORMATION

Local irritation:

Dust may irritate eyes, respiratory tract and skin. After swallowing are
Abdominal pain or nausea possible.

Other notes:

No known significant effects or critical hazards

12 ENVIRONMENTAL INFORMARTION

Ecotoxic effects:

Not determined

Biodegradation:

Not determined

Bioaccumulative potential:

No known significant effects or critical hazards

Toxicity:

No data available

13 DISPOSAL INSTRUCTIONS

Disposal:

In accordance with local and national regulations. Do not contaminate waterways or
ditches with chemical or used container. For recycling, contact local waste disposal
centers.

14 TRANSPORT NOTICES

Regulations:

Tough-PLA is not classified as dangerous for transport according to ADR/RID/IMDG/ICAO/IATA.

15 FURTHER INFORMATION

The information in this safety data sheet corresponds to our knowledge to the best of our knowledge. The information is intended to give you clues for the safe handling of the in this Product specified in the safety data sheet during storage, processing, transport and disposal. The Specifications cannot be transferred to other products. It is the responsibility of the recipient to comply with the applicable legal regulations governing the use of this product.