Material Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking

Product:	PLA LW filament
Manufacturer:	Conrad Electronic SE
Address:	Klaus-Conrad-Str. 1, D-92240 Hirschau
Telephone:	+49 (0) 9604 / 40 - 8988
Date:	20.04.2022

2. Hazards Identification

Flammability: 1 0 = Minimum, 1 = Low, 2 = Moderate, 3 = High, 4 = Extreme

Toxicity: 0

Body Contact: 1

Reactivity: 1

Chronic: 1

GHS classification

Not Applicable

Label elements:

GHS label elements

Not Applicable

Signal word:

Not Applicable

3. Composition/Information on Ingredients

Ingredient Name	CAS No.	EC No.	Content (%)
Polylactic Acid	31852-84-3	-	70 - 80
Ethylene-vinyl acetate copo	24937-78-8	-	10 - 20
Additives	-	-	5 - 10

4. First Aid Measures

INGESTION

- Immediately give a glass of water.

- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

EYE

If this product comes in contact with eyes:

- Wash out immediately with water.

- If irritation continues, seek medical attention.

- Removal of contact lenses after an eye injmy should only be undertaken by skilled personnel.

SKIN

If skin or hair contact occurs:

- Flush skin and hair with running water (and soap if available).

- Seek medical attention in event of irritation.

INHALATION

- If dust is inhaled, remove from contaminated area.

- Encourage patient to blow nose to ensure clear passage of breathing.

- If irritation or discomfort persists seek medical attention.

Indication of any immediate medical attention and special treatment needed

- Treat symptomatically.

5. Firefighting Measures

EXTINGUISHING MEDIA

Do NOT direct a solid stream of water or foam into bmning molten material; this may cause spattering and spread the fire.

Foam.

Dry chemical powder.

BCF (where regulations permit).

FIRE FIGHTING

Alert Fire Brigade and tell them location and nature of hazard.

Wear breathing apparatus plus protective gloves.

Prevent, by any means available, spillage from entering drains or water courses.

Use water delivered as a fine spray to control fire and cool adjacent area.

FIRE/EXPLOSION HAZARD

Combustible solid which bums but propagates flame with difficulty.

Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondaiy explosions).

FIRE INCOMPATIBILITY

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

6. Accidental Release Measures

MINOR SPILLS

Generally not applicable

MAJOR SPILLS

Generally not applicable

Personal Protective Equipment advice is contained in Section 8 ofthe SDS.

7. Handling and Storage

PROCEDURE FOR HANDLING

Limit all unnecessaiy personal contact.

Wear protective clothing when risk of exposure occurs.

Use in a well-ventilated area.

Avoid contact with incompatible materials.

Store in original containers.

Keep containers securely sealed.

Store in a cool, dry, well-ventilated area.

Store away from incompatible materials and foodstuff containers.

SUITABLE CONTAINER

Multi-ply paper bag with sealed plastic liner or heavy gauge plastic bag.

NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse. Check that all containers are clearly labelled and free from leaks.

Packing as recommended by manufacturer.

STORAGE INCOMPATIBILITY

Avoid reaction with oxidising agents.

8. Exposure Controls, Personal Protection

EXPOSURE CONTROLS

Appropriate engineering controls

For molten materials:

Provide mechanical ventilation; in general such ventilation should be provided at compounding/converting areas and at fabricating/ filling work stations where the material is heated. Local exhaust ventilation should be used over and in he vicinity of machinery involved in handling the molten material.

Keep dry!

Processing temperatures may be well above boiling point of water, so wet or damp material may cause a serious steam explosion if used in unvented equipment.

Engineering controls are used to remove a hazard or place a banier between the worker and the hazard.

Personal protection

Eye and face protection

Safety glasses with side shields.

Chemical goggles.

Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate initants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.

Skin protection

See Hand protection below

Hands/feet protection

The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.

Suitability and durability of glove type is dependent on usage.

Body protection

See Other protection below

Other protection

Overalls.

P.V.C. apron.

Banier cream.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Odour	Odorlessness
Form	Solid
Melting Range (°C)	No data
Boiling Range (°C)	No data
Flash Point (°C)	No data
Decomposition Temp (°C)	No data
Autoignition Temp (°C)	No data
Upper Explosive Limit (%)	No data
Lower Explosive Limit (%)	No data
Volatile Component (%vol)	No data
Solubility in water (g/L)	Insoluble in water
pH (1 % solution)	No data
pH (as supplied)	No data
Print T emp (°C)	190 – 270 °C
Bed T emp(°C)	45 – 60 °C
Density(g/ cm^3)	1.1 – 1.2
Heat Distortion Temp (°C, 0.45MPa)	50
Tensile Strength (Mpa)	32
Elongation at Break (%)	65
IZOD Impact Strength (kJ/m2)	8

10. Stability and Reactivity

Reactivity

See section 7

Chemical stability

Unstable in the presence of incompatible materials.

Product is considered stable.

Hazardous polymerisation will not occur.

11. Toxicological Information

Information on toxicological affects

Acute Toxicity

LD/LCSO values relevant for classification

No data.

Primary irritant effect

On the skin

No data.

On the eyes

No data.

Inhaled

No data.

Sensitization

No data.

12. Ecological Information

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
Polylactic Acid	No data	No data	No data	No data
Ethylene-vinyl acetate copo	No data	No data	No data	No data
Additives	No data	No data	No data	No data

13. Disposal Considerations

Legislation addressing waste disposal requirements may differ by county, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

A Hierarchy of Cont:rols seems to be common - the user should investigate:

- Reduction

- Reuse

- Recycling

- Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use.

14. Transport Information

Labels Required

Marine Pollutant: NO

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADR, IATA, IMDG, ADN

15. Regulatory Information

REGULATIONS

The product needs to follow local regulations.

16. Other Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.