Material Safety Data Sheet

1. Product & Company Identification

Product:	PLA filament, Ø2.85 mm, red, 1 kg
Manufacturer:	Conrad Electronic SE
Address:	Klaus-Conrad-Str. 1, D-92240 Hirschau
Telephone:	+49 (0) 9604 / 40 - 8988
Date of issue:	16.05.2017

2. Hazards Identification

		Min	Max	
Flammability	0			0 = Minimum
Toxicity	1			1 = Low
Body Contact	0			2 = Moderate
Reactivity	1			3 = High
Chronic	0			4 = Extreme

GHS classification:

Not Applicable

Label elements:

Not Applicable

SIGNAL WORD:

Not Applicable

3. Composition/Information on Ingredients

Ingredient Name	CAS No.	EC No.	Content (%)
PLA	26100-51-6	--	>97.9%
Styrene/ butadiene copolymer	9003-55-8	618-370-2	2%
Other additives	--	--	<0.1%

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 the eyes:

- Wash out immediately with fresh running water.
- If irritation continues, seek medical attention.
- Removal of contact lenses after an eye injury 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.

INHALED

- If fumes, aerosols or combustion products are inhaled remove from contaminated area.
- Other measures are usually unnecessary.

NOTES TO PHYSICIAN

- Treat symptomatically.

5. Fire Fighting Measures

EXTINGUISHING MEDIA

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves in the event of a fire.
- 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 burns but propagates flame with difficulty

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 of the SDS.

7. Handling and Storage

PRECAUTIONS FOR SAFE HANDING

- Use in a well-ventilated area.
- 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

- Packing as supplied by manufacturer.
- Polyethylene or polypropylene container.
- Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

- Avoid contamination of water, foodstuffs, feed or seed.
- Avoid reaction with oxidising agents

PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

8. Exposure Controls, Personal Protection

APPROPRIATE ENGINEERING CONTROLS

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

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 irritants. 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 PROTECION

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.

Suitability and durability of glove type is dependent on usage.

BODY PROTECTION

See Other protection below

OTHER PROTECTION

No special equipment needed when handling small quantities.

OTHERWISE:

- Overalls.
- Barrier cream.
- Eyewash unit.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Color:	Red
Form:	Wire line
Odor:	Odorlessness
Melting Range (°C):	190
Boiling Range (°C):	230
Flash Point (°C):	No data.
Decomposition Temp (°C):	240
Autoignition Temp (°C):	No data.
Upper Explosive Limit (%):	No data.
Lower Explosive Limit (%):	No data.
Volatile Component (%vol):	No data.
Molecular Weight:	No data.
Viscosity:	No data.
Solubility in water (g/L):	No data.
pH (1% solution):	No data.
pH (as supplied):	No data.
Vapour Pressure (kPa):	No data.
Specific Gravity (water=1):	No data.
Relative Vapour Density (air=1):	No data.
Evaporation Rate:	No data.

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/LC50 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

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
PLA	No Data Available	No Data Available	No Data Available	No Data Available
Styrene / butadiene copolymer	No Data Available	No Data Available	No Data Available	No Data Available
Other additives	No Data Available	No Data Available	No Data Available	No Data Available

13. Disposal Considerations

Legislation addressing waste disposal requirements may differ by country, 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 Controls 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.