



Material Safety Data Sheet

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

Product:	PLA with carbon fiber for extrusion-based 3D printing
Manufacturer:	Conrad Electronic SE
Address:	Klaus-Conrad-Str. 1, D-92240 Hirschau
Telephone:	+49 (0) 9604 / 40 - 8988
Date:	29.01.2021

2. Hazards Identification

GHS classification

Physical hazards	Not classified
Health hazards	Not classified
Environmental hazards	Not classified

GHS label elements

Hazard Pictograms	No hazard pictogram is used.
Signal word	No signal word is used.
Hazard statement	Not applicable.

Precautionary statement

Prevention	Not applicable.
Response	Not applicable.
Storage	Not applicable.
Disposal	Not applicable.
Other hazards	Not available.

3. Composition / Information on Ingredients

Components	CAS#	Percent
Chopped Carbon Fiber	7440-44-0	5-20%



Material Safety Data Sheet

4. First Aid Measures

First aid procedures:

Eye contact

None expected to require first aid measures. Flush with running water for at least 15 minutes. If irritation persists get medical attention.

Skin contact

None expected to require first aid measures. Wash thoroughly with soap and water. Get medical attention in the unlikely event that irritation persists.

Inhalation

None expected to require first aid measures. If breathed in, remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical attention.

Ingestion

Immediate first aid is not likely to be required. A physician or poison control center can be contacted for advice.

Notes to physician

Treat symptoms.

5. Fire Fighting Measure

Flammable properties

Not available.

Extinguishing media

Suitable extinguishing media Use extinguishers suitable for surrounding fire.

Unsuitable extinguishing media

Not available.

Firefighting equipment/instructions

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Carbon oxides.

6. Accidental Release Measures

Personal precautions

Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions

Avoid disposing into drainage/sewer system or directly into the aquatic environment.

Methods for cleaning up

Sweep up and shovel into suitable containers. Clean up affected area.



Material Safety Data Sheet

7. Handling and Storage

Handling

Ensure good ventilation/exhaustion at the workplace. Wash thoroughly after handling.

Storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. OSHA Table Z-3 (29 CFR 1910.1000)

Component	Type	Value	Form
Chopped Carbon Fiber (CAS 7440-44-0)	TWA	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value	Form
Chopped Carbon Fiber (CAS 7440-44-0)	TWA	2.5 mg/m ³ Respirable.	Respirable.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Individual protection measures, such as personal protective equipment:

Eye / face protection No special protection required.

Skin protection No special protection required.

Respiratory protection No special protection required.

General hygiene considerations

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.



9. Physical & Chemical Properties

Appearance

Physical state	Solid
Form	Solid
Color	Black
Odor	Odorless
Odor threshold	Not available
pH	Not available
Vapor pressure	Not available
Vapor density	Not available
Boiling point	Not available
Melting point/Freezing point	165 °C
Solubility (water)	Insoluble
Relative Density	1.27
Flash point	Not available
Partition coefficient	Not available
Flammability limits in air, upper, %by volume	Not available
Flammability limits in air, lower, % by volume	Not available
Auto-ignition temperature	Not available
VOC	Not available
Percent volatile	Not available
Molecular Formula	Not available
Molecular Weight	Not available

Other data

Viscosity	Not available
Dissociation constant	Not available



Material Safety Data Sheet

10. Chemical Stability & Reactivity Information

Reactivity

The substance is stable under normal storage and handling conditions.

Chemical stability

Material is stable under normal conditions.

Conditions to avoid

Incompatible materials.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Carbon oxides.

Possibility of hazardous reactions

No hazardous reactions known.

11. Toxicological Information

Toxicokinetics, metabolism and distribution:

Non-human toxicological data:

Not available

Information on toxicological effects:

Acute toxicity:

LD50(Oral, Rat):	Not available
LD50(Dermal, Rabbit):	Not available
LC50(Inhalation, Rat):	Not available
Skin corrosion/Irritation:	Not classified
Serious eye damage/irritation:	Not classified
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT- single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified



Material Safety Data Sheet

12. Ecological Information

Toxicity:

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	N/A	96h	Fish	OECD 203	N/A	N/A
EC50	N/A	48h	Daphnia	OECD 202	N/A	N/A
EC50	N/A	72h	Algae	OECD 201	N/A	N/A

Persistence and degradability:

Not available.

Bioaccumulative potential:

Not available.

Mobility in soil:

Not available.

Results of PBT&vPvB assessment:

Not available.

Other adverse effects:

Not available.

13. Disposal Considerations

Disposal instructions

Dispose of contents/container in accordance with local/regional/national/international regulations.

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied.



14. Transport Information

DOT

Basic shipping requirements:

UN number	Not regulated
Proper shipping name	Not regulated
Hazard class	Not regulated
Packing group	Not regulated
Environmental hazards	No

IATA

UN number	Not regulated
UN proper shipping name	Not regulated
Transport hazard class(es)	Not regulated
Packing group	Not regulated
Environmental hazards	No

IMDG

UN number	Not regulated
UN proper shipping name	Not regulated
Transport hazard class(es)	Not regulated
Packing group	Not regulated
Environmental hazards	No



15. Regulatory Information

US federal regulations:

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Yes

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.



16. Other Information

HMIS® ratings

Health: 0

Flammability: 1

Physical hazard: 0

NFPA ratings

Health: 0

Flammability: 1

Instability: 0

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.