

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product Identifier**

Product Names: Carbon Fiber: milled carbon fiber

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s): Reinforcement fiber for manufactured polymer goods.

1.3 Details of the supplier of the safety data sheet

Manufacturer: Finite Fiber, 1374 Markle St., Akron, OH 44306, United States

1.4 Emergency telephone number

Manufacturer: 330-773-6654

Section 2: Hazards Identification**2.1 Classification of the Substance or Mixture**

This product is not classified as hazardous or flammable.

Preparation classification: None known

2.2 Label Elements

No special labeling

2.3 Other Hazards

Physio-chemical hazards: In the supplied form the product is not explosive, the build-up of fines and dust can lead to a risk of dust explosions.

Eyes: Dust may cause temporary irritation

Skin: Dust may cause mild irritation or allergic skin reactions

Inhalation: Dust may cause mild irritation

Other hazards: This product and the dust from the product are electrically conductive

Section 3 - Composition/Information on Ingredients**3.1 Chemical nature: Carbon, fibers****3.2 Other substances with occupational exposure limits:**

CAS	Weight %	Name
308063-67-4 (7440-44-0)	90%-99%	Carbon Fiber (carbon) polyacrylonitrile(PAN)-based

Section 4 - First Aid Measures**4.1 Description of first aid measures**

Inhalation: Move to fresh air. Get medical attention immediately if symptoms occur.

Skin: If skin irritation occurs, wash thoroughly with soap and water.

Eye: Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.

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4.2 Notes to physician

Treat symptomatically.

4.3 Protection of first-aiders

Use personal protective equipment. Do not breathe dust.

4.4 Ingestion

Not a probable route. However, in case of gastro-intestinal distress following accidental ingestion, call a physician.

Section 5 - Firefighting Measures

5.1 Flammable properties

Not flammable.

5.2 Flash point

Not applicable.

5.3 Extinguishing media

Suitable Extinguishing Media: Water spray, Foam, CO₂, Chemical Powder

5.4 Hazardous combustion products

Carbon oxides, Nitrogen oxides (NO_x), Volatile organic compounds, Hydrogen cyanide.

5.5 Explosion data

Sensitivity to Mechanical Impact: None

Sensitivity to Static Discharge: airborne fibers are electrically conductive

5.6 Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6 – Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions: Do not breathe dust.

Emergency Procedures: No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

Should not be released into the environment.

6.3 Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so.

Avoid dust formation. Sweep up and shovel into suitable containers for disposal.

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Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Avoid dust formation.

7.2 Conditions for safe storage, including any incompatibilities

Airborne particles and filaments should be stored to minimize skin contact and electrical shorts. Do not store with oxidizing agents.

Section 8 - Exposure Controls/Personal Protection

8.1 Exposure guidelines

Exposure Limits: OSHA and ACGIH (USA) have not established air contamination for carbon fibers. This could be a nuisance dust. OSHA has set a standard for nuisance dust to 5 mg/m³ (respirable fraction) and 15 mg/m³ (total dust). ACGIH has established an exposure value of 3 mg/m³ (respirable fraction) and 10 mg/m³ (total).

8.2 Exposure controls

Engineering Measures/Controls: Exhaust for airborne fiber removal

Personal Protective Equipment:

Respiratory: In case of insufficient ventilation wear suitable respiratory equipment (filter type P2). This is required in cases where maximum concentration of 1 RFP/ml of air is exceeded.

Eye/Face: Safety glasses

Hand: Protective gloves

Skin/Body: Disposable protective garments to eliminate potential skin irritation.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

Thermal Hazards: None

Section 9 – Physical and Chemical Properties

Physical state @20°C	Solid
Appearance	Black Fiber
Color	Black
Odor	Odorless
pH	N/A
Melting/freezing point	~3500 C
Boiling point/boiling range	Not applicable
Flash point	Not applicable
Evaporation rate	Not applicable
Flammability (solid, gas)	Not applicable
Flammability Limits in Air	Not applicable
Vapor pressure	Not applicable
Vapor density	Not applicable
Relative density	~1.8
Solubility	Negligible
Solubility in other solvents	Negligible
Partition coefficient (n-octanol/water)	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	>650 °C

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Viscosity, dynamic Explosive properties Oxidizing Properties	Not applicable Potential for weak explosion Class St 1 / Kst (bar – m/s) Not relevant
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Section 10 - Stability and Reactivity

10.1 Chemical stability

Stable under normal conditions.

10.2 Possibility of hazardous reactions

Can react with strong oxidizing agents.

10.3 Conditions to avoid

See section 7.

10.4 Hazardous decomposition products

Products of combustion and decomposition will depend on other materials present in the fire and the fire conditions.

Burning will produce CO₂, CO, and minute amounts of N₂, HCN and H₂O.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Acute toxicity: No data available

Skin Corrosion/irritation: No data available

Serious eye damage/irritation: No data available

Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

Carcinogenicity: No data available

Reproductive toxicity: No data available

STOT-single exposure: No data available

STOT-repeated exposure: No data available

Aspiration hazard: Not an inhalation hazard, filament diameter > 3µm / non-respirable (IARC)

Section 12 - Ecological Information

12.1 Ecotoxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in Soil

No data available

12.5 Results of PBT and NPvB assessment

No data available

12.6 Other adverse effects

Ecological data not available

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Section 13 - Disposal Considerations

13.1 Waste disposal methods

Waste materials must be disposed of in accordance with the Directive on waste 2008/98/EC and any other applicable national or local regulations.

Section 14 - Transport Information

14.1 UN Shipping Name

Not dangerous goods ADR/RID land, AND (inland navigation), IMDG (marine)

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for substance or mixture

TSCA Status: Exempt – satisfies 'article' definition under 40 CFR 704.3

15.2 Chemical safety assessment

Has not been carried out

Section 16 - Other Information

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