

MATERIAL SAFETY DATA SHEET

Valid for **cut and chopped carbon fibers**
 In accordance with regulation (EC) No 1907/2006-
 REACH

Revision date: 01/05/2021

1 – PRODUCT AND COMPANY IDENTIFICATION

Product name	Carbon Fibers Milled, cut or chopped or granules
Relevant uses	rubber belts, thermosetting composites, textile yarns, paints, non-wovens, abrasive and friction materials
Uses advised against	None
Company name	Suter Kunststoffe AG
Address	Aefligenstrasse 3, CH-3312 Fraubrunnen
Phone number	+41 (0)31 763 60 60

2 – HAZARDS IDENTIFICATION

Main product risk	Electricity conducting material. Airborne fibers can short circuit electrical equipment. The build-up of fine dust can lead to a risk of explosion.
Human health risks	Fine dust may irritate skin, eyes and mucous membranes. No case of disease reported.
Environmental risks	Known as a non-polluting product, but which may cause electrical short circuits when dispersed.
Specific risks	None

Product and its components are not classified as dangerous according to the decree of 07/12/2009, or regulations (EC) No 1272/2008(CLP), 67/548/ECC and 1999/45/EC.

3 – COMPOSITION / COMPONENT INFORMATION

Substance/mixture	≥92%
Standard or chemical name	Carbon
CAS number	7440-44-0
EINECS/ELINCS number	Polymer (231-153-3)
GHS/CLP or hazard symbols	Not applicable
R-phrases	Not applicable
Substances of Very High Concern (SVHC)	None or below 0.1%
CMR	None or below 0.1%
Other components	None or below 0.1%

4 – FIRST AID MEASURES

General advice	Dust may be irritating. Change clothing.
Eye contact	Rinse thoroughly with plenty of water for at least 15 min and seek medical advice
Skin contact	Wash thoroughly with water and soap.
Inhalation	Remove subject to fresh air. Seek medical attention if symptoms persist.
Ingestion	Rinse mouth and drink water. No medical treatment required

5 – FIRE-FIGHTING MEASURES

Suitable extinguish media	All usual extinguishing products appropriate for the surrounding fire are allowed. Avoid full water jet.
Specific hazards	Not flammable or combustible under normal uses. Risk of formation of toxic pyrolysis products (CO)
Special protective equipment for firefighters	Wear full-face, self-contained breathing apparatus to avoid inhalation of fumes or decomposition products

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Specific methods None

6 – ACCIDENTAL RELEASE MEASURES

Individual precautions	None
Environmental precautions	Avoid worsening the dispersion
Cleaning methods	Avoid dust formation. Clean up with sweep or vacuum.

7 – HANDLING AND STORAGE

Handling precautions	Dust can form an explosive mixture with air. Keep away from sources of ignition - no smoking. Avoid the dispersion of discharging loose fibers into open air. Wash thoroughly after handling. No electrical appliances or protect them in sealed or pressurized cases. Insulating varnish may be applied to electronic boards and electrical terminals.
Technical measures	Electrical conducting material – do not cut the carbon fibre unnecessarily – do not allow contact with electric current sources.
Storage	Store in a cool (<50°C), dry and well-ventilated area.

8 – EXPOSURE CONTROLS / INDIVIDUAL PROTECTION

Engineering measures	Ensure adequate ventilation on workstation to avoid dust accumulation.
Control parameters	See local regulations. VME for total dust : 10 mg/m ³ Long-term exposure for carbon fibers: 0.5 mg/m ³ or 0.5 RFP/ml (respirable fiber-shaped particles)
Personal protective equipment:	
<i>Respiratory protection</i>	Use appropriate certified breathing apparatus in the event of high concentrations (poor ventilation, fine dust production). Filter apparatus FFP1 or FFP2.
<i>Skin/hand protection</i>	Gloves and protective clothing. Avoid skin contact.
<i>Eye protection</i>	Safety glasses with side shields or face protection
Hygiene measures	Wash face and hands before eating, drinking or smoking and do it in separate areas. Use barrier skin cream.

9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical state	solid
Form	short fiber (filament)
Color	black or charcoal grey
Odor	none
pH	not applicable
Boiling point	not applicable
Melting point	> 2760°C or 5000°F
Vapor pressure / Vapor density	not applicable
Specific gravity (filament)	1.6 to 2.0 g/ml

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Bulk density (shot fibers)	0.1 to 0.3 kg/dm ³ depending on whether the fiber is cut, chopped or milled; depending on its length and the sizing type.
Flash point	no information available
Viscosity	no information available
Flammability	not applicable
Autoignition temperature	not applicable
Oxidizing properties	>650 in air, >290 in preparation
Solubility in water and solvents used	insoluble fiber – sizing agent soluble in chlorinated solvents, acetone, DMF
Partition coefficient (n-octanol/water)	no information available

10 – STABILITY AND REACTIVITY

Stability	Stable.
Conditions to avoid	See section 7
Hazardous reactions	Reactions with strong oxidizing agents. Risk of dust explosion if accumulation of fine dust in the air.
Hazardous decomposition products	Oxides of carbon (CO)

11 – TOXICOLOGICAL INFORMATION

Acute toxicity	Product presumed non toxic
Local effects	Carbon fibers and dust may cause mechanical irritation of the eyes, skin, nose and throat. The filament is not breathable (IARC). None carbon fibers with diameter below 3.5µm (≥7µm) and length below 80µm, therefore they are not considered as “respirable fiber-shaped particles” (RFP ≤ 3.5µm diameter)

12 – ECOLOGICAL INFORMATION

Ecotoxicity	This material is not classified as dangerous for the environment. Ecological data are not available.
Persistence and degradability	Non-polluting, stable product
Mobility in soil	No information available
Bioaccumulation	No information available
PBT/vPvB	These products are not classified as PBT or vPvB.

13 – DISPOSAL CONSIDERATIONS

Waste disposal	Dispose of wastes in a suitable place according to local regulations – do not incinerate. Incineration may cause carbon fiber particles to be dispersed into the air which may damage electrical equipment.
Treatment of contaminated packaging	Packaging that cannot be cleaned should be disposed of as for product.

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14 – TRANSPORT INFORMATION

Carbon products are not classified as dangerous in terms of national and international transport regulations – no specific transport label required.

15 – REGULATORY INFORMATION

These products are not submitted to regulations (EC) No. 1272/2008 (CLP), 67/548/EEC, nor No.1999/45/EC. This MSDS has been established in accordance with REACH regulations (EC) No. 1907/2006 and No. 453/2010.

16 – OTHER INFORMATION

We believe that the information contained in this safety data sheet is correct to the best to our knowledge. However, the information contained in this sheet is not exhaustive. This safety data sheet does not anticipate all the circumstances in which the product may be used, nor all the physical and mental characteristics of each individual responsible for its transport or transformation. It is the duty of the user to test and use this product safely, in accordance with the laws and regulations in force. Unless otherwise stated in writing, we accept no responsibility for complaints or damage caused related to the use of this product. For all additional information, please contact Suter Kunststoffe AG.

All the information given in this Material Safety Data Sheet are from carbon fiber producers.