
Safety Data Sheet

1 Identification of the substance/mixture and the Company/undertaking

1.1 Product identifier

Product name:	Carbon Sleeves
Synonyms:	n/a
Chemical family:	Carbon fiber
Product description:	Braided Carbon Biaxial Sleeves

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

1.2.1 Relevant uses Industrial applications

1.2.2 Uses advised against
none known

1.3 Details of the supplier of the safety data sheet

Company	LLC «ARTEK BRAIDING» 1a, Promishlennaya st, Troitsk, Moscow, Russia, 142191 www. artek-braiding.ru info@artek-braiding.ru
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1.4 Emergency telephone number

Phone:	+7 (499) 271-71-75 #1112 (Working days 9.00-18.00)
Fax:	none

2 Hazards Identification

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]
not classified

2.1.2 Classification according to Regulation 67/548/EEC or 1999/45/EC

Hazard symbols none

R-phrases none

The product does not require a hazard warning label, in accordance with OSHA HazCom and EC-directives.

2.2 Label elements

Labeling according to Regulation 67/548/EEC or 1994/45/EC

Hazard symbols	none
R-phrases	none
S-phrases	none
Special labeling	not applicable

2.3 Other hazards

Physio-chemical hazards	see SECTION 10 In the supplied form the product itself is not explosive at all; however, the build-up of fines and dust can lead to a risk of dust explosions.
Human health dangers	see SECTION 11 and below
Eye	Dust may cause temporary irritation.
Skin	Dust may cause mild irritation. In some cases, the dust may cause allergic skin reactions.
Inhalation	Dust may cause mild irritation.
Environmental hazards	see SECTION 12
Other hazards	This product and its dusts are electrically conductive.

3 Composition/information on ingredients

Component	CAS No.	Composition, % by weight
PAN based carbon fiber (carbon)	7440-44-0	91.0-99.8
Sizing	Proprietary	0.0-9.0

4 First aid measures

4.1 Description of first aid measures

General information	not applicable
Inhalation	Remove from the area of the dust to fresh air. Seek medical attention if you feel unwell.
Skin contact	Wash affected areas thoroughly with soap and water.
Eye contact	Flush eyes with water for 15 minutes.
Ingestion	In the event of deliberate ingestion, do not induce vomiting unless directed to do so by consulting with a doctor.

4.2 *Most important symptoms and effects, both acute and displayed*
no data available

4.3 *Indication of any immediate medical attention and special treatment*
no data available

5 Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media normal firefighting media and procedures
Unsuitable extinguishing media dependent on processing plant conditions

5.2 Special hazards arising from the substance or media

Airborne fibers are electrically conductive
CO₂, CO and a minute amount of N₂, HCN and H₂O

5.3 Advice for firefighters

Self-contained breathing apparatus (SCBA)

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel
not applicable

6.1.2 For emergency responders
not applicable

6.2 Environmental precautions

not applicable

6.3 Methods and material for containment and cleaning up

6.3.1 For containment In case of spill, collect the spilled materials. If the material is not contaminated, put it into a clean container and it can be reused. Otherwise, dispose of it properly.

6.3.2 For cleaning up Because the dust is electrically conductive and may become airborne, clean up with a vacuum. If an electrical appliance is used, take the steps necessary to avoid the risk of electrical shock.

7 Handling and storage

7.1 Precautions for safe handling

No special measures necessary if used properly.
Hold the paper tube while handling the bobbins.

7.2 Conditions for safe storage, including any incompatibilities

Airborne particles and filaments should be controlled so as to minimize skin irritation and electrical shorts in switch gears, etc. due to conductivity of fiber.
Do not store together with oxidizing agents.
Storage in a cool, dry place.

7.3 Specific end use(s)

see Section 1.2

8 Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

OSHA and ACGIH (USA) have not established air contamination for carbon fibers. Under certain conditions this substance may be a nuisance dust. OSHA has an established standard for particulates not otherwise regulated (nuisance dust) set at 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).

NHFPC (PRC) has an established standard for carbon fiber's particulates not otherwise regulated set at 6mg/m³ ESTL (total dust) and 3mg/m³ TWA (total dust), Belgium has established an Occupational Exposure Limit for carbon fiber as 2 fiber/cm³ TWA.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Local exhaust for airborne fiber removal.

8.2.2 Personal protection equipment

- 8.2.2.1 Eye and face protection
 - safety glasses
- 8.2.2.2 Skin protection
 - Hand protection
 - Protective gloves
 - Other skin protection
 - Recommend disposable protective garments to eliminate possible skin irritation.
- 8.2.2.3 Respiratory protection
 - Personal dust respirators applicable if high degree of fiber fly is experienced.
- 8.2.2.4 Thermal hazards
 - not applicable
- 8.2.3 Environmental exposure controls
 - see Section 6 & 7

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	black fiber
Odor	odorless
pH	not applicable
Viscosity	not applicable
Melting/freezing point	~3500°C
Initial boiling point and boiling range	not applicable
Flashpoint	not applicable
Evaporation rate	not applicable
Flammability (solid, gas) Upper/lower flammability or explosive limits	not applicable
Vapor pressure	not applicable
Vapor density	not applicable
Specific gravity	1.70-2.0 g/cm ³
Solubility(ies) water	not applicable
Partition coefficient n-octanol/water	not applicable
Autoignition temperature	not applicable
Electrically conductive	Yes
Decomposition temperature (in Air) sizing	>240°C
carbon fiber	>650°C
Explosive properties	potential for weak explosion with milled fiber or dusts Class St 1* / <50 Kst (bar•m/s)

Oxidizing properties

*OSHA CPL 03-00-008 – Combustible Dust National Emphasis Program
not applicable

9.2 Other information

no other information available

10 Stability and reactivity

10.1 Reactivity

see Section 10.3

10.2 Chemical stability

stable under normal ambient and anticipated storage
and handling conditions of temperature and pressure

10.3 Possibility of hazardous reactions

can react with strong oxidizing agents

10.4 Conditions to avoid

see Section 7

10.5 Incompatible materials

see Section 10.3

10.6 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.

11 Toxicological information

Acute toxicity

no data available

Skin irritation

Contact with fly or dust may cause skin irritation

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)

12 Ecological information

12.1 Toxicity	not 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

13 Disposal considerations

Waste treatment 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. Waste can be taken for recycling (consult recycling specialist).
EU Waste Number	160306, 061399

14 Transport information

14.1 UN number	see Section 14.2
14.2 UN proper shipping name	not Dangerous Goods ADR/RID (land) ADN (inland navigation) IMDG (marine)
14.3 Transport hazard class(es)	see Section 14.2

14.4 Packing group

see Section 14.2

14.5 Environmental hazards

see Section 14.2

14.6 Special precautions to user

see Section 6 to 8

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code
not applicable

15 Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

TSCA Status	Exempt - satisfies 'article' definition under 40 CFR 704.3
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15.2 Chemical safety assessment

has not been carried out

16 Other information

Revision number	0
Revision date:	14 th of October, 2016

Abbreviations and acronyms

ADN = Accord européen relative au transport International des marchandises dangereuses par voie de navigation intérieure

ADR = Accord européen relative au transport international des marchandises Dangereuses par Route

CAS = Chemical Abstracts Service

CLP = Classification, Labelling and Packaging

EEC = European Economic Community

IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

IMDG = International Maritime Code for Dangerous Goods

MARPOL = International Convention for the Prevention of Marine Pollution from Ships

OSHA = Occupational Safety and Health Administration

PBT = Persistent, Bioaccumulative and Toxic substance

RID = Règlement concernant le transport international ferroviare de marchandises dangereuses

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