

SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : Carbon fiber fabric

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

Identified uses	Structural reinforcement.
Uses advised against	For industrial use only.

1.3. Details of the supplier of the safety data sheet

Registered company name : Shanghai Wolfix Materials Co.,Ltd.

Address : Room 703, Building 3, No.101 Youyi Rd, Baoshan district, Shanghai.

Telephone : +86 150 0066 9292

Email : Admin@wolf-fix.com

www.wolf-fix.com

1.4. Emergency telephone number : +86 150 0066 9292.

Association/Organisation : Company Phone (24h)

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

According to REACH Regulation 1907/2006 EC, the product is considered as an article. The preparation of a safety data sheet in accordance with Article 31 of the Regulation (EC) No.1907/2006 is not legally required for articles.As being an article the product does not require label in accordance with CLP Regulation (EC) No. 1272/2008 and this safety data sheet (SDS) is provided on the voluntary basis for information purpose only.

Classification according to Regulation (EC) No 1272/2008 as amended

The product is an article and therefore the classification requirements according to Regulation (EC) 1272/2008 as amended do not apply.

Hazard summary Low hazard for recommended handling by trained personnel.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Hazard pictograms	None
Signal word	None
Hazard statements	Exempt (manufactured article).
Precautionary statements	
Prevention	Observe good industrial hygiene practices.
Response	Wash skin with soap and water.
Storage	Store away from heat. Keep dry.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Supplemental label information	None

2.3. Other hazards

Processing may generate hazardous fumes and dusts. Elevated temperatures or mechanical action may form dust and fumes which may be irritating to the eye, mucous membranes and respiratory tract. May cause irritation through mechanical abrasion. Exposure to smoke or fumes evolved during cutting, machining, or grinding operations may cause sneezing or coughing, and irritate the nose, throat, and upper respiratory tract. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases. Persons with epoxy allergy should not work with this product.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS**3.2. Mixtures****General information**

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Carbon Fiber on basis polyacrylonitrile (carbon)	90-96	308063-67-4 231-153-3	/	/	/
Classification:					
Non-hazardous ingredients	4-10	N/A	/	/	/
Classification:					

Composition comments

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

SECTION 4 : FIRST AID MEASURES**General information**

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

Inhalation	In case of inhalation of fumes from heated product: Move to fresh air.
Skin contact	Sharp edges may cause cuts and irritation. Cuts or abrasions should be treated promptly with thorough cleansing of the affected area.
Eye contact	If exposed to fumes or smoke flush eyes with large amount of water for at least 15 minutes. Dust in the eyes: Do not rub eye. Flush thoroughly with water. If irritation occurs, get medical assistance.
Ingestion	Not likely, due to the form of the product.

4.2. Most important symptoms and effects, both acute and delayed

No specific symptoms noted.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 : FIREFIGHTING MEASURES

General fire hazards	This product is not flammable. Will burn if involved in a fire.
5.1. Extinguishing media	
Suitable extinguishing media	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media	None known.
5.2. Special hazards arising from the substance or mixture	During fire, gases hazardous to health may be formed.
5.3. Advice for firefighters	
Special protective equipment for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Special fire fighting procedures	Use standard firefighting procedures and consider the hazards of other involved materials. Cool material exposed to heat with water spray and remove it if no risk is involved.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Ensure adequate ventilation. Avoid contact with skin and eyes, which may cause lacerations.
For emergency responders	Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions Avoid release to the environment.

6.3. Methods and material for containment and cleaning up Collect spillage.

6.4. Reference to other sections For personal protection, see Section 8 of the SDS. For waste disposal, see Section 13 of the SDS.

SECTION 7 : HANDLING AND STORAGE

7.1. Precautions for safe handling	Provide adequate ventilation. Use work methods which minimise dust/fume production. Avoid inhalation of dust. Avoid inhalation of fumes from heated product. Caution - Risk of injury: CFK roll is under great tension. Wear appropriate personal protective equipment. Wash hands after handling. Observe good industrial hygiene practices.
7.2. Conditions for safe storage, including any incompatibilities	Store away from heat. Keep dry. Keep at temperature not exceeding 40°C.
7.3. Specific end use(s)	Structural reinforcement.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters
Occupational exposure limits
Belgium. Exposure Limit Values.
Components

Components	Type	Value	Form
Dust	TWA	3 mg/m ³	Respirable fraction.
		10 mg/m ³	Inhalable fraction.

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work
Components

Components	Type	Value	Form
Dust	TWA	3,5 mg/m ³	Respirable fraction.
		10 mg/m ³	Inhalable fraction.

Czech Republic. OELs. Government Decree 361			
Components	Type	Value	Form
Dust	TWA	5 mg/m ³	Dust.
Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)			
Components	Type	Value	Form
Dust	TWA	5 mg/m ³ 10 mg/m ³	Respirable dust. Total dust.
France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984			
Components	Type	Value	Form
Dust	VME	5 mg/m ³ 10 mg/m ³	Respirable fraction. Inhalable fraction.
Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)			
Components	Type	Value	Form
Dust	TWA	4 mg/m ³ 0,3 mg/m ³	Inhalable dust. Respirable dust.
Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace			
Components	Type	Value	Form
Dust	AGW	10 mg/m ³ 1,25 mg/m ³	Inhalable fraction. Respirable fraction.
Hungary. OELs. Joint Decree on Chemical Safety of Workplaces			
Components	Type	Value	Form
Dust	TWA	6 mg/m ³ 10 mg/m ³	Respirable dust. Total inhalable dust.
Iceland. OELs. Regulation 154/1999 on occupational exposure limits			
Components	Type	Value	Form
Dust	TWA	5 mg/m ³ 10 mg/m ³	Respirable dust. Total dust.
Ireland. Occupational Exposure Limits			
Components	Type	Value	Form
Dust	TWA	4 mg/m ³ 10 mg/m ³	Respirable dust. Total inhalable dust.
Lithuania. OELs. Limit Values for Chemical Substances, General Requirements (Hygiene Norm HN 23:2007)			
Components	Type	Value	Form
Dust	TWA	5 mg/m ³ 10 mg/m ³	Respirable fraction. Inhalable fraction.
Norway. Administrative Norms for Contaminants in the Workplace			
Components	Type	Value	Form
Dust	TLV	5 mg/m ³	Respirable dust.
Norway. Administrative Norms for Contaminants in the Workplace			
Components	Type	Value	Form
		10 mg/m ³	Total dust.
Poland. MACs. Regulation regarding maximum permissible concentrations and intensities of harmful factors in the work environment, Annex 1			
Components	Type	Value	Form
Dust	TWA	10 mg/m ³ 1 mg/m ³	Inhalable fraction. Respirable fraction.

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)			
Components	Type	Value	Form
Dust	TWA	3 mg/m ³ 10 mg/m ³	Respirable fraction. Inhalable fraction.
Slovakia. OELs. Decree of the government of the Slovak Republic concerning protection of health in work with chemical agents			
Components	Type	Value	Form
Dust	TWA	10 mg/m ³ 10 mg/m ³	Dust.
Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents			
Components	Type	Value	Form
Dust	TWA	2 mg/m ³ 2 mg/m ³	Respirable aerosol fraction Respirable fraction.
Spain. Occupational Exposure Limits			
Components	Type	Value	Form
Dust	TWA	3 mg/m ³ 10 mg/m ³	Respirable fraction. Inhalable fraction.
Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)			
Components	Type	Value	Form
Dust	TWA	5 mg/m ³ 10 mg/m ³	Respirable dust. Inhalable dust.
Switzerland. SUVA Grenzwerte am Arbeitsplatz			
Components	Type	Value	Form
Dust	TWA	3 mg/m ³ 10 mg/m ³	Respirable dust. Inhalable dust.
UK. EH40 Workplace Exposure Limits (WELs)			
Components	Type	Value	Form
Dust	TWA	4 mg/m ³ 10 mg/m ³	Respirable dust. Inhalable dust.
Biological limit values		No biological exposure limits noted for the ingredient(s). Follow standard monitoring procedures.	
Recommended monitoring procedures		Not available.	
Derived no effect levels(DNELs)		Not available.	
Predicted no effect concentrations (PNECs)		Not available.	
8.2. Exposure controls			
Appropriate engineering controls		General ventilation normally adequate. Observe occupational exposure limits and minimise the risk of exposure.	
Individual protection measures, such as personal protective equipment			
General information		Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.	
Eye/face protection		Use tight fitting goggles if dust is generated by machining operation.	
Skin protection		Wear suitable protective gloves to prevent cuts and abrasions. Suitable gloves can be recommended by the glove supplier.	
- Hand protection		Protective clothing is not required under normal conditions. If material is heated, wear gloves to protect against thermal burns.	
- Other			

Respiratory protection	Not necessary under normal conditions. Wear respirator if there is dust formation.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
Environmental exposure controls	Environmental manager must be informed of all major releases.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance

Physical state	Solid.
Form	Solid. Roll.
Colour	Black.
Odour	None.
Odour threshold	Not applicable.
pH	Not applicable.
Melting point/freezing point	Not applicable.
Initial boiling point and boiling range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not applicable.
Flammability limit - upper (%)	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	1,7 - 2
Solubility(ies)	Insoluble in water.
Partition coefficient (n-octanol/water)	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not available.
Viscosity	Not applicable.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
9.2. Other information	No relevant additional information available.

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.

10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use
10.4. Conditions to avoid	Avoid high temperatures. Heating. Avoid dust formation.
10.5. Incompatible materials	Strong oxidising agents.
10.6. Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11 : TOXICOLOGICAL INFORMATION

General information	Occupational exposure to the substance(s) generated during processing of this material may cause adverse health effects.
Information on likely routes of exposure	
Inhalation	Inhalation of dusts produced during cutting, grinding or sanding of this product may cause irritation of the respiratory tract.
Skin contact	The material has sharp edges, which may damage skin. May cause irritation through mechanical abrasion.
Eye contact	The material has sharp edges, which may damage eyes. Elevated temperatures or mechanical action may form dust and fumes which may be irritating to the eyes.
Ingestion	Not likely, due to the form of the product. However, ingestion of dusts generated during working operations may cause nausea and vomiting.
Symptoms	Mechanical irritation of skin, eyes and respiratory system.
11.1. Information on toxicological effects	
Acute toxicity	Not relevant, due to the form of the product in its manufactured and shipped state.
Skin corrosion/irritation	Dust may irritate skin.
Serious eye damage/eye irritation	Dust may irritate the eyes.
Respiratory sensitisation	Based on available data, the classification criteria are not met.
Skin sensitisation	Not classified. However: Preparation contains an epoxy resin, which may cause sensitisation and development of allergy.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure	Based on available data, the classification criteria are not met.
Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Not relevant, due to the form of the product.
Mixture versus substance information	No data available.
Other information	Because of the polymerically bound form of the product, the risk inherent to the active substances is minimized for all kinds of absorption.

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
12.2. Persistence and degradability	The product is not expected to be readily biodegradable.
12.3. Bioaccumulative potential	The product is not expected to bioaccumulate.
Partition coefficient n-octanol/water (log Kow)	Not applicable.
Bioconcentration factor (BCF)	Not available.
12.4. Mobility in soil	The product is insoluble in water and will sediment in water systems.

12.5. Results of PBT and vPvB assessment	Not a PBT or vPvB substance or mixture.
12.6. Other adverse effects	Generally polymer compounds may contain ingredients (raw materials) that can pose a danger to aquatic organisms should these ingredients be extracted into the water in which the organisms live. Through encapsulation in the polymeric matrix, volatility and migration of ingredients is reduced such that the bio-availability is nearly eliminated.

SECTION 13 : DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Residual waste	Dispose of in accordance with local regulations.
Contaminated packaging	Not applicable.
EU waste code	16 03 04 The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14 : TRANSPORT INFORMATION

ADR

14.1. - 14.6.: Not regulated as dangerous goods.

RID

14.1. - 14.6.: Not regulated as dangerous goods.

ADN

14.1. - 14.6.: Not regulated as dangerous goods.

IATA

14.1. - 14.6.: Not regulated as dangerous goods.

IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15 : REGULATORY INFORMATION

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended
Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.
Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended
Not listed.

Other regulations

The product is an article and therefore the classification requirements according to Regulation (EC) 1272/2008 as amended do not apply.

National regulations

Follow national regulation for work with chemical agents.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16 : OTHER INFORMATION**List of abbreviations**

Not available.

References

GESTIS Substance Database
C&L Inventory database.
In-house data

Information on evaluation method leading to the classification of mixture

Not applicable.

Full text of any H-statements not written out in full under Sections 2 to 15

None.

This SDS contains revisions in the following section(s): 1

Training information

Follow training instructions when handling this material.

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release. It is not to be considered a warranty or quality specification.