

1. Identification

Product identifier

Trade name: 616XXX - Carbon Fiber

This safety data sheet pertains to the following products:

Article No. 616G12 - Carbon Fiber Cloth

Article No. 616G15 - Woven Carbon Fiber Stockinette

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

General use: Article: carbon-fibers. For orthopedic procedures
Reserved for industrial and professional use.

Details of the supplier of the safety data sheet

Company name: Otto Bock Health Care

Street/POB-No.: 3820 W. Great Lakes Drive

Zip code, city: Salt Lake City, UT 84120

USA

WWW: www.ottobockus.com

Telephone: +1 (801) 956-2400

Telefax: +1 (801) 956-2401

Department responsible for information:

Quality Department,

Telephone: +1 (801) 954-2304 (7 AM – 3 PM, Mountain Time),

Email: USRegulatory@ottobock.com

Additional information:

Corporate headquarters:

Ottobock SE & Co. KGaA

Max-Näder-Straße 15

Duderstadt

Germany

Emergency telephone number

CHEMTREC, Telephone: +1 (800) 424-9300

2. Hazard identification

Classification of the substance or mixture

Article not subject to hazard labelling or classification.

Label elements

not applicable

Other hazards

Processing, e.g. by cutting, sawing or grinding, can produce particles and dust. For risks which have to be observed thereby, see section 7: Handling, section 8: Exposure controls / personal protection and section 11: Toxicology.

Carbon Fiber is electrically conductive. It can cause short circuits within electrical equipment, if material dusts penetrate into the ambient air.

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

3. Composition/information on ingredients

Mixtures

Chemical characterization: Carbon fibers >95%, Fibers: not respirable

4. First aid measures

General information:	For mechanical processing: dust formation.
In case of inhalation:	In case of troubles after inhalation of dust: Move victim to fresh air. Seek medical attention.
Following skin contact:	Dust: Remove residues with soap and water. Seek medical treatment in case of troubles.
After eye contact:	Dust: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.
After swallowing:	Ingestion is not considered a possible route of exposure. Dust: Rinse mouth and drink large quantities of water. Seek medical attention if problems persist.

Most important symptoms/effects, acute and delayed

For mechanical processing: mild irritant

Information to physician

Treat symptomatically.

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:

Water spray jet, foam, dry chemical powder, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

Full water jet.

Specific hazards arising from the chemical

In case of fire may be liberated: carbon monoxide and carbon dioxide.

Protective equipment and precautions for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid generation of dust. Provide adequate ventilation.

In the case of the formation of dust:

Eliminate all ignition sources if safe to do so.

Do not breathe dust. Ensure adequate ventilation, especially in confined areas. Wear protective equipment. Avoid contact with skin and eyes.

Environmental precautions:

Discharge into the environment must be avoided.

Methods and material for containment and cleaning up

Methods for clean-up: Take up mechanically, placing in appropriate containers for disposal.

7. Handling and storage

Precautions for safe handling

Advices on safe handling: For mechanical processing:
Provide adequate ventilation. Avoid generation of dust.
Wear protective equipment. The use of local exhaust ventilation is recommended.
Do not breathe dust. Avoid contact with skin and eyes.

Precautions against fire and explosion:
Fine dust: danger of dust explosion.
Carbon Fiber is electrically conductive. It can cause short circuits within electrical equipment, if material dusts penetrate into the ambient air.

Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:
Store at room temperature. Keep away from heat.

Hints on joint storage:
Do not store together with oxidizing agents.
Keep away from food, drink and animal feedingstuffs.

8. Exposure controls/personal protection

Control parameters

Occupational exposure limit values:

Type	Limit value
USA: ACGIH: TWA	10 mg/m ³ (Dust limit value, inhalable fraction)
USA: ACGIH: TWA	3 mg/m ³ (Dust limit value, respirable fraction)
USA: OSHA: TWA	15 mg/m ³ (Dust limit value, total dust)
USA: OSHA: TWA	5 mg/m ³ (Dust limit value, respirable fraction)

Appropriate engineering controls

For mechanical processing: Provide adequate ventilation.
The use of local exhaust ventilation is recommended.

Personal protection equipment (PPE)

Respiratory protection: For mechanical processing:
Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded. Particulates filter P2 according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.

Hand protection: For mechanical processing:
Protective gloves according to OSHA Standard - 29 CFR: 1910.138
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: For mechanical processing:
Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.
If necessary: Wear face protective shield.

Body protection: For mechanical processing: Wear suitable protective clothing.

General hygiene considerations:

Avoid generation of dust. Do not breathe dust.

Wash hands before breaks and after work.

Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state at 68 °F and 101.3 kPa	Form: solid
Color:	gray up to black
Odor:	odorless
Odor threshold:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flammability:	No data available
Explosion limits:	No data available
Flash point/flash point range:	No data available
Evaporation rate:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	Carbon fibers: > 650 °C
pH:	No data available
Viscosity:	No data available
Water solubility:	at 68 °F: carbon fibers: insoluble
Partition coefficient: n-octanol/water:	No data available
Vapor pressure:	No data available
Density:	at 68 °F: 1.7 - 2 g/cm ³
Vapor density:	No data available
Particle characteristics:	Not applicable

Additional information

Ignition temperature: 662 °F

10. Stability and reactivity

Reactivity: No data available.

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions:

Fine dust: danger of dust explosion.

Carbon Fiber is electrically conductive. It can cause short circuits within electrical equipment, if material dusts penetrate into the ambient air.

Conditions to avoid: Avoid generation of dust. Keep away from heat.

Incompatible materials: Strong oxidizing agents

Hazardous decomposition products:

In case of fire may be liberated: carbon monoxide and carbon dioxide.

11. Toxicological information

Information on toxicological effects

Toxicological effects: Acute toxicity (oral): Lack of data.
 Acute toxicity (dermal): Lack of data.
 Acute toxicity (inhalative): Lack of data.
 Skin corrosion/irritation: Lack of data.
 Serious eye damage/irritation: Lack of data.
 Sensitisation to the respiratory tract: Lack of data.
 Skin sensitisation: Lack of data.
 Germ cell mutagenicity/Genotoxicity: Lack of data.
 Carcinogenicity: Lack of data.
 Reproductive toxicity: Lack of data.
 Effects on or via lactation: Lack of data.
 Specific target organ toxicity (single exposure): Lack of data.
 Specific target organ toxicity (repeated exposure): Lack of data.
 Aspiration hazard: Lack of data.

Other information: Fibers: not respirable

Symptoms

For mechanical processing: mild irritant

12. Ecological information

Ecotoxicity

Effects in sewage plants: The insoluble part can be precipitated mechanically in suitable sewage treatment plants.

Further details: No data available

Persistence and degradability

Further details: No data available

Bioaccumulative potential

Partition coefficient: n-octanol/water:

No data available

Mobility in soil

No data available

Other adverse effects

General information: Discharge into the environment must be avoided.

13. Disposal considerations

Waste treatment methods

Product

Recommendation: Incinerate according to applicable local, state and federal regulations.

Package

Recommendation: Dispose of waste according to applicable legislation.
Non-contaminated packages may be recycled.

14. Transport information

UN number

DOT, IMDG, IATA-DGR: not applicable

UN proper shipping name

DOT, IMDG, IATA-DGR: Not restricted

Transport hazard class(es)

DOT, IMDG, IATA-DGR: not applicable

Packing group

DOT, IMDG, IATA-DGR: not applicable

Environmental hazards

Marine pollutant: no

Transport in bulk according to IMO instruments

No data available

Special precautions for user

USA: Department of Transportation (DOT)

Proper shipping name: Not restricted

Sea transport (IMDG)

Proper shipping name: Not restricted

Marine pollutant: no

Air transport (IATA)

Proper shipping name: Not restricted

Further information

No dangerous good in sense of these transport regulations.

15. Regulatory information

National regulations - U.S. Federal Regulations

This product is an article as defined by TSCA regulations, and is exempt from TSCA inventory listing requirements.

National regulations - U.S. State Regulations

No data available

Further regulations, limitations and legal requirements

No data available

16. Other information

Revision date: 12/17/2025

Date of first version: 6/27/2007

Reason of change: General revision: Safety Data Sheet according to Hazardous Products Regulations (HPR) 2022

General revision: Safety Data Sheet according to HCS 2024 (29 CFR 1910.1200)

Hazard rating systems:



NFPA Hazard Rating:

Health: 1 (Slight)

Fire: 1 (Slight)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 1 (Slight)

Flammability: 1 (Slight)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0
	X

Abbreviations and acronyms:

AS/NZS: Australian Standards/New Zealand Standards

CAS: Chemical Abstracts Service

CFR: Code of Federal Regulations

CLP: Classification, Labelling and Packaging

DMEL: Derived minimal effect level

DNEL: Derived no-effect level

DOT: Department of Transportation's Safety Regulations (USA)

EC: European Community

EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods

EN: European Standard

EQ: Exempt quantities

IATA: International Air Transport Association

IATA-DGR: International Air Transport Association – Dangerous Goods Regulations

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

IMDG Code: International Maritime Dangerous Goods Code

IMO: International Maritime Organization

MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships

MFSU: Manufacture, formulation, supply and use

OEL: Occupational Exposure Limit Value

OSHA: Occupational Safety and Health Administration

PBT: Persistent, bioaccumulative and toxic

PNEC: Predicted no-effect concentration

TLV: Threshold Limit Value

TRGS: Technical Rules for Hazardous Substances

TSCA: Toxic Substance Control Act

vPvB: Very persistent and very bioaccumulative

WEL: Workplace Exposure Limit

Department issuing data sheet

Contact person: see section 1: Department responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.