

## 616x - Carbon Fiberglass Textile Material

Material number 616x

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### 1 Identification

#### Product identifier

Trade name: 616x - Carbon Fiberglass Textile Material

#### Other means of identification

This safety data sheet pertains to the following products:

616H11 - Carbon Fiberglass Webbing

616G14 - Woven Carbon Fiberglass Stockinette

#### Recommended use and restrictions on use

General use: Article: carbon/glass-textile material for orthopedic procedures.  
Reserved for industrial and professional use.

#### Initial supplier identifier

Company name: Otto Bock HealthCare Canada Ltd.

Street/POB-No.: 5470 Harvester Road

Postal code, city: Burlington, ON L7L 5N5, CA

Canada

WWW: www.ottobock.ca

Email: info.canada@ottobock.com

Telephone: (800) 665-3327

Telefax: (800) 463-3659

Department responsible for information:

Mark Agro, Telephone: (800) 665-3327 (9 am - 5 pm)

Additional information: Corporate headquarters:  
Ottobock SE & Co. KGaA  
Max-Näder-Straße 15  
Duderstadt  
Germany

#### Emergency telephone number

COLLECT, Telephone: (613) 996-6666

### 2 Hazard identification

#### Classification

Article not subject to hazard labelling or classification.

#### Information elements

not applicable

#### Other hazards known to the supplier with respect to the product

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.

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### 3 Composition/Information on ingredients

#### Mixture

Chemical name: Carbon/glass-fibers: > 95% (Carbonfibers on the basis of polyacrylonitrile)

CAS-Number: -

Hazardous ingredients:

CAS No.	Designation	Content	Classification
CAS 25068-38-6	Bisphenol A epoxy resin (molecular-weight < 700)	< 1 %	Skin Irritation 2. Eye Irritation 2A. Sensitization - skin 1. Aquatic toxicity - chronic 2.

The actual concentration or concentration range is withheld as a trade secret.

### 4 First-aid measures

#### Description of necessary first-aid measures

General information: For mechanical processing: dust formation.

In case of inhalation: Provide fresh air. Rinse mouth thoroughly with water.  
Seek medical treatment in case of troubles.

In case of swallowing: Rinse mouth thoroughly with water. Give affected person large quantities of water, better milk.  
Seek medical attention. Subsequent observance for Obstructing of the bowel/intestines.

In case of skin contact: Remove residues with soap and water.  
Avoid rubbing. Fibers may penetrate deeper into the skin by rubbing.  
In the event of persistent symptoms seek medical treatment.

In case of eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. In case of troubles or persistent symptoms, consult an ophthalmologist.

#### Most important symptoms and effects, whether acute or delayed

Fibers and dust: Skin irritation, mucous membrane irritation, eye irritations.  
May produce an allergic reaction.

#### Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

### 5 Fire-fighting measures

#### Suitable and unsuitable extinguishing media

Suitable extinguishing media: Water spray jet, foam, extinguishing powder, carbon dioxide.

Unsuitable extinguishing media: Full water jet.

#### Specific hazards arising from the product

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

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### Special protective equipment and precautions for fire-fighters

Wear self-contained breathing apparatus.

Additional information: You have to dispose of contaminated extinguishing water according to the regulations of the authorities.

## 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation.

Avoid generation of dust. Wear suitable protective clothing.

Environmental precautions:

Discharge into the environment must be avoided.

### Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal. Final cleaning.

## 7 Handling and storage

### Precautions for safe handling

Advices on safe handling: For mechanical processing:

Provide adequate ventilation. Avoid generation of dust.

Wear suitable protective clothing. The use of local exhaust ventilation is recommended.

Precautions against fire and 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. (< 50 °C)

Protect from moisture contamination. (< 85 %)

Hints on joint storage:

Do not store together with oxidizing agents.

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### 8 Exposure controls/Personal protection

#### Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
-	616x - Carbon Fiberglass Textile Material	Canada: Alberta, OEL 8 hour	10 mg/m <sup>3</sup> (Dust limit value, inhalable fraction)
		Canada: Alberta, OEL 8 hour	3 mg/m <sup>3</sup> (Dust limit value, respirable fraction)
		Canada: BC, OEL TWA	10 mg/m <sup>3</sup> (Dust limit value, inhalable fraction)
		Canada: BC, OEL TWA	3 mg/m <sup>3</sup> (Dust limit value, respirable fraction)
		Canada: Québec, VEMP	10 mg/m <sup>3</sup> (total dust)
		Canada: Québec, VEMP	3 mg/m <sup>3</sup> (total dust, respirable fraction)
		Canada: Alberta, OEL 8 hour	1 fibers/cm <sup>3</sup> (Glass Fibres, Continuous filament)
		Canada: Alberta, OEL 8 hour	5 mg/m <sup>3</sup> (Glass Fibres, continuous filament, total particulate, inhalable fraction)
		Canada: BC, OEL TWA	1 fibers/cm <sup>3</sup> (Synthetic vitreous fibres, Continuous filament glass fibres)
		Canada: BC, OEL TWA	5 mg/m <sup>3</sup> (Synthetic vitreous fibres, Continuous filament glass fibres, inhalable fraction)
65997-17-3	Glass fibers	Canada: Ontario, OEL TWA	1 fibers/cm <sup>3</sup> (Synthetic vitreous fibres, Continuous filament glass fibres)
		Canada: Ontario, OEL TWA	5 mg/m <sup>3</sup> (Synthetic Vitreous Fibres (Man Made Mineral Fibres), Continuous filament glass fibres)
		Canada: Québec, VEMP	1 fibers/cm <sup>3</sup> (continuous filament)

Additional information: This limit values shall be applied in the case of formation of critical WHO-fibres by mechanical processing.

#### Appropriate engineering controls

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

#### Individual protection measures, such as personal protective equipment

Respiratory protection: For mechanical processing:  
Half mask with particle filter 1 according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.

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Hand protection:	For machine processing: Protective gloves against mechanical risks according to OSHA Standard - 29 CFR: 1910.138 In case of manual processing: Protective gloves according to OSHA Standard - 29 CFR: 1910.138. Glove material: butyl caoutchouc (butyl rubber)-Breakthrough time: >480 min. 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.
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. Avoid rubbing. Fibers may penetrate deeper into the skin by rubbing. Remove fibers and/or dust from working clothes using a vacuum cleaner Glass fibers-dust: Avoid contact with skin and eyes.

### Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

## 9 Physical and chemical properties

### Information on basic physical and chemical properties

Physical state at 20 °C and 101.3 kPa	Form: solid
Colour:	black and whitish
Odour:	odourless
Odour threshold:	No data available
Melting point and freezing point:	Carbon: approx. 3500 °C
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	No data available
Lower and upper explosion limit or lower and upper flammability limit:	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 Coating agent: > 290 °C
pH:	No data available
Water solubility:	at 20 °C: glass/carbon fibers: insoluble
Partition coefficient — n-octanol/water:	No data available
Vapour pressure:	No data available
Density and/or relative density	at 20 °C: 1.7 - 2.6 g/cm <sup>3</sup>
Vapour density:	No data available
Particle characteristics:	Not applicable

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### Additional information

Ignition temperature: Carbon: 350 °C

## 10 Stability and reactivity

Reactivity: No data available

Chemical stability: Stable under recommended storage conditions.  
Glass fibers: not combustible

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

Conditions to avoid: 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 the likely routes of exposure

No data available

### Health hazard information

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: For mechanical processing:  
Possible in traces: formation of WHO-fibers  
Definition WHO-fibers: length (L) > 5 µm and diameter (D) < 3 µm and L:D > 3:1  
classification WHO-fibers: Causes concern for man owing to possible carcinogenic effects. Should be regarded as if they are carcinogenic to man.

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### Symptoms

Fibers and dust: Skin irritation, mucous membrane irritation, eye irritations.  
May produce an allergic reaction.

## 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: Glass fibers: Product is not biodegradable.

### 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

TDG, IMDG, IATA-DGR: not applicable

### UN proper shipping name

TDG, IMDG, IATA-DGR: Not restricted

### Transport hazard class

TDG, IMDG, IATA-DGR: not applicable

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### Packing group

TDG, IMDG, IATA-DGR: not applicable

### Environmental hazards

Marine pollutant: no

### Special precautions in connection with transport or conveyance either within or outside the premises

#### Canada: Transportation of Dangerous Goods (TDG)

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 - Canada

Product: Priority Substances List: listed (PSL 2)  
CEPA Schedule 1: listed

Bisphenol A epoxy resin (molecular-weight < 700): DSL: listed

### Further regulations, limitations and legal requirements

No data available

## 16 Other information

Text for labelling: See information supplied by the manufacturer.  
Revision date: 17/12/2025  
Date of first version: 3/1/2008  
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)



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### Abbreviations and acronyms:

Aquatic toxicity - chronic: Hazardous to the aquatic environment - chronic  
AS/NZS: Australian Standards/New Zealand Standards  
CAS: Chemical Abstracts Service  
CEPA: Canadian Environmental Protection Act  
CFR: Code of Federal Regulations  
CLP: Classification, Labelling and Packaging  
DMEL: Derived minimal effect level  
DNEL: Derived no-effect level  
DSL: Domestic Substances List  
EC: European Community  
EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods  
EN: European Standard  
EQ: Excepted quantities  
Eye Irritation: Eye irritation  
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  
OSHA: Occupational Safety and Health Administration  
PBT: Persistent, bioaccumulative and toxic  
PNEC: Predicted no-effect concentration  
PSL: Priority Substances List  
Sensitization - skin: Skin sensitisation  
Skin Irritation: Skin irritation  
TDG: Transportation of Dangerous Goods Regulation in Canada  
TRGS: Technical Rules for Hazardous Substances  
TSCA: Toxic Substance Control Act  
vPvB: Very persistent and very bioaccumulative  
WHO: World Health Organization

### Literature:

IARC Vol 81, 23.08.2002 Man-made Vitreous Fibres  
TRGS 905, 05/2008 Verzeichnis krebserzeugender, erbgutverändernder oder fortpflanzungsgefährdender Stoffe

### 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.