



# Northern<sup>TM</sup>

## FIBER GLASS SALES

### MATERIAL SAFETY DATA SHEET

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Carbon (graphite) Fabric  
**PRODUCT Chemical name:** PAN based Carbon woven fabric

**Product Forms:** Continuous Batch Woven or fabric

**Synonyms:** woven roving, cloth, tape, mat, preform

**ISSUE DATE:** 10/31/2005  
**EDITION NO.:** 2

**Northern Fiber Glass Sales, Inc.**  
**Proprietary Weaver**  
**102 Tide Mill Road, Hampton, NH, 03842, USA**

**Emergency Telephone Number** (8am-5pm ET): **1-401-762-1500**

**PREPARER:** Northern Fiber Glass Sales, Inc.

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Material/CAS Number	Percent	OSHA(Pell)
<b>Substrate:</b> Carbon fabric comprised of continuous Carbon fiber, synthetic, 7440-44-0	>96.5-99% (typical)	15mg/m <sup>3</sup> (total) 5mg/m <sup>3</sup> (respirable)
Organic Surface Binder/Sizing, Typically epoxy resin sizing –Proprietary Mixture	>0.1—1.5% (typical)	

This product is not classified as a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. The percentages listed above will vary dependent upon the specific carbon fiber used to manufacture the woven fabric; as well as the sizing epoxy configuration percentages.

The exposure limits expressed are for each individual component and not for the total product. The sizing information has not been determined as it is part of the total product.

### 3. HAZARDS IDENTIFICATION

#### **EMERGENCY OVERVIEW: Appearance and odor**

**Black continuous carbon fiber with resin sizing applied and no distinctive odor. It is not expected to present any immediate concern for emergency response personnel. It may cause mild temporary mechanical or skin irritation. The carbon fibers are electrically conductive and may cause or create electrical short circuits or malfunctions of electrical equipment and or personal injury (if handled inappropriately around electricity).**

#### **Potential Health Effects**

**Eyes:** Contacts with this product may cause mechanical eye irritation and or eye redness. Dust from cutting or grinding of product (by customer processing) may cause mechanical eye irritation.

**Skin:** May cause skin irritation and redness as well as itching and drying of skin. Mechanical irritation may occur from carbon fiber abrading onto skin through mechanical motions (rubbing, scratching). Prolonged exposure or repeated contact may cause allergic skin reactions and possible sensitizations.

**Inhalation:** Exposure to respirable fibers of this product is not expected to occur under normal industrial conditions. In a dust created environment, it may cause mechanical irritation to the mucus membranes and upper respiratory tracts.

**Ingestion:** Not expected to occur during industrial activities. If it is ingested, this product is not expected to cause any significant adverse effects.

**Carcinogenic information:** The components present in this material are not listed or regulated by IARC; NTP; and OSHA.

**Precautions:** Avoid direct contact with eyes and skin. Avoid breathing dust if chopping or grinding. Do not swallow. Do not eat, drink or smoke in work area. Wash thoroughly after handling. Wear proper fitting PPE.

### 4. FIRST AID MEASURES

**INHALATION:** Remove from current environment (source) area to fresh air. Contact emergency room or physician for treatment information if problems persist.

**EYE/SKIN CONTACT: EYE(S):** Rinse with a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact emergency room, or physician as further medical treatment may be necessary.

**SKIN:** Avoid scratching or rubbing affected area as this may lead to more mechanical type irritation. Immediately wash with a gentle stream of ambient or cool water over the affected area for several minutes. A mild soap may be used if available. If any symptoms persist, seek medical attention as further treatment may be necessary. If carbon fiber becomes embedded due to mechanical action, seek medical attention.

**INGESTION:** Ingestion of the product or the dust is unlikely. If swallowed, contact emergency room personnel or physician for immediate treatment.

## 5. FIRE FIGHTING MEASURES

**FLASH POINT:** N/A

**EXTINGUISHING MEDIA:** Use extinguishers appropriate for surrounding fire such as dry chemical, foam or CO<sub>2</sub>, or water spray.

**SPECIAL FIRE HAZARDS:** Avoid exposure to fire by using a self-contained positive pressure breathing apparatus as well as other protective fire-fighting equipment normally worn for fire.

## 6. ACCIDENTAL RELEASE MEASURES

**ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:**

Sweep or gather up material and place in proper container for disposal or recovery. Use vacuuming or wet sweeping methods instead of dry sweeping. Wear the proper personal protective equipment as described in Section 8 for cleanup activities. Do not incinerate, instead place into plastic bags or other landfill approved containers.

## 7. HANDLING AND STORAGE

**PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:**

Store at or below 25°C (77°F) and relative humidity less than 65% for optimum performance. Wear the specified PPE protection as described in Section 8 when handling product.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Limits:** The values below are for particulates not otherwise classified and apply only under certain circumstances or conditions.

**OSHA:** 15 mg/m<sup>3</sup> TWA. ( total dust)  
5 mg/m<sup>3</sup> TWA. ( respirable dust)

**ACGIH:** 10 mg/m<sup>3</sup> TWA (inhalable fraction)  
3 mg/m<sup>3</sup> TWA (respirable fraction)

**RESPIRATORY PROTECTION:** Normal use or application of this product does not generate dust. If other procedures create dust, use an appropriate NIOSH-approved particulate filter respirator.

**VENTILATION:** Use local exhaust or general room/dilution ventilation sufficient to maintain employee exposure below permissible exposure limits.

**EYE AND FACE PROTECTION:** **Wear** standard safety glasses with side shields or goggles as a good safety practice.

## Exposure controls (continued Section 8)

**PROTECTIVE GLOVES:** Use latex or cotton gloves to protect against physical irritation or injury if required by handling conditions. Replace the gloves if they become damaged or worn.

**OTHER PROTECTIVE EQUIPMENT:** Wear clean, body-covering clothing (lab-coat or smock). Good personal hygiene and the use of barrier creams, caps, protective gloves, cotton coveralls or long sleeved loose fitting clothing will maximize comfort. Work clothing should be laundered separately from other clothing before reuse. Discard all types of PPE that have been contaminated from use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**COLOR:** .....Black continuous fiber  
**ODOR:** .....Odorless  
**SPECIFIC GRAVITY (Water=1):** .....1.75 – 1.85  
**MELTING POINT:** ...carbon fiber---->6500<sup>0</sup> F/ 3600<sup>0</sup> C  
**SOLUBILITY (wt.% in water):** .....insoluble  
**VAPOR PRESSURE:** .....NA  
**PHYSICAL STATE:** .....Solid

## 10. STABILITY AND REACTIVITY

**STABILITY:** Stable.

**HAZARDOUS POLYMERIZATION:** Will not occur under normal storage or handling conditions.

**INCOMPATIBILITY (CONDITIONS/MATERIALS TO AVOID):** None known under normal circumstances. If exposed to burning conditions of a high heat source; carbon oxides and other unidentified gases and vapors produced may be toxic. Avoid inhalation in these conditions without a properly approved breathing apparatus.

## 11. TOXICOLOGICAL INFORMATION

**CARCINOGENICITY STATUS:** This product is NOT listed as a carcinogen or suspected carcinogen by NTP, IARC, or OSHA.

### Acute Toxicological data:

There is no acute data available on this product. The oral, dermal, and inhalation acute toxicity of this product are expected to be very low.

Eye irritation: not determined

Skin irritation: not determined

Inhalation irritation: not determined

Sensitization of the fiber manufacturer's proprietary uncured epoxy resin sizing could occur. Consult the carbon fiber manufacturer msds document for more information.

## 12. ECOLOGICAL INFORMATION

**ECOTOXICOLOGICAL INFORMATION:** Carbon fiber is generally considered to be an inert solid waste. No ecological data has been determined.

## 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:**

Waste material must be disposed by the user in accordance with federal, state, provincial, and local environmental control regulations. Empty containers should be recycled or disposed of through an approved waste management facility.

## 14. TRANSPORT INFORMATION

**Proper Shipping Name:** Not regulated as hazardous or dangerous goods.

## 15. REGULATORY INFORMATION

**US EPA TSCA:** This product is considered an article and is exempt from TSCA requirements. RCRA 40 CFR part 261.33: classified as non hazardous waste.

**SARA TITLE III:**

**SARA (311, 312) Hazard Class:** NA

**SARA (313) Chemicals:** Contains no toxic chemicals at or above the determined threshold subject to report requirements.

**SARA Extremely Hazardous Substance:** Not listed.

**CERCLA Hazardous Substance:** Not listed.

**CA Proposition 65:** insignificant trace quantity; none.

**PA;MA;NJ right to know:** less than reportable quantity

**CANADA REGULATIONS (WHMIS):** Not Applicable.

## 16. OTHER INFORMATION

This information is furnished without warranty (expressed or implied) and is believed to be accurate to the best knowledge of Northern Fiber Glass Sales, Inc. The information provided within this document is based upon reliable information from our raw material suppliers. The user should review any information within specific contexts of the products intended use to determine the appropriate application.

**Previous revision date:** NA

**Previous edition number:** NA

**NA = Not Available**