

## Safety Data Sheet Steel Wrap Carbon Fiber

### I. Product and Company Identification

**Product Name:** Steel Wrap Carbon Fiber  
**Supplier:** NRI 3875 Fiscal Court, Ste #100 Riviera Beach, FL 33404 (561) 683-6992  
**Emergency Phone Number:** 800-535-5053  
**Product Description:** Woven/Knitted Carbon Fiber product  
**Product Use:** Carbon tape for repairing pipes  
**Chemical Name or Synonym:** N/A

### II. Hazards Identification

**Classification of the substance or mixture**

Skin corrosion/irritation – Category 3  
 Eye damage/eye irritation – Category 2B  
 Skin sensitization - Category 1B



GHS07

**Hazard Statements:**

H316 Causes mild skin irritation.  
 H320 Causes eye irritation.  
 H317 May cause an allergic skin reaction.

**Signal Word:** Warning

**Precautionary Statement:**

P261 Avoid breathing dust  
 P280 Wear protective gloves

**Emergency Overview:** Carbon fibers do not pose hazards as shipped. But during operations involving mechanical working this product, airborne fibers and dust may be generated.

**Hazardous Materials Identification System (HMIS):**

Health: 1  
 Flammability: 0  
 Physical Hazard: 0

### III. Composition/ Information on Ingredients

Component	CAS #	% Composition
Carbon fiber	Proprietary	97 – 99
Sizing (epoxy resin)	Proprietary	1 – 3

### IV. First Aid Measures

**First Aid Measures for Accidental:**

**Eye Exposure:** Do not allow victim to rub or keep eyes tightly shut. Gently lift eyelids and immediately flush eyes with large amounts of water. Remove any contact lenses. Continue to flush for at least 30 minutes, occasionally lifting the upper and lower lids. Seek prompt medical attention.

## Safety Data Sheet Steel Wrap Carbon Fiber

**Skin Exposure:** Quickly remove contaminated clothing. Immediately wash area with large amounts of water. Seek prompt medical attention for any reddened skin other than from washing.

**Inhalation:** Protect yourself with appropriate PPE, remove the person to fresh air. Decontaminate and begin rescue breathing if breathing has stopped and CPR if heart action has stopped. Seek prompt medical attention.

**Ingestion:** Never give anything by mouth to an unconscious or convulsing person. Contact a Poison Control Center (PCC). Unless the PCC advises otherwise, have the conscious and alert person drink 1 to 2 glasses of water to dilute. Induce vomiting only after recent ingestions due to the possibility of seizures. Seek prompt medical attention.

**Most important symptoms/effects, acute and delayed:**

**Acute Inhalation:** Not available

**Acute Eye:** May cause slight irritation.

**Acute Skin contact:** May cause allergic reaction.

**Ingestion:** Not available

**Over-exposure signs/symptoms:** None determined

**Notes to Physician:** Not available

### V. Fire Fighting Measures

**Extinguishing Media:** Water, water spray, dry chemical, carbon dioxide.

**Special Fire Fighting Procedures:** Do not release runoff from fire control methods to sewers or waterways.

**Special Protective Equipment for Fire-fighters:** Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

**Unusual Fire and Explosion Hazards:** Not Available

**Hazardous Decomposition Materials (Under Fire Conditions):** Carbon monoxide, carbon dioxide, hydrocarbons.

### VI. Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures:** No action shall be taken involving any personal risk or without suitable training. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**Cleanup and Disposal of Spill:** When cleaning up spilled material, keep unnecessary people away, isolate area, and deny entry until the spilled material has been removed. Scoop up material and place in a chemical waste container. Suction up remaining material using a high efficiency vacuum cleaner. Avoid suspending particles in the air. Extreme caution should be used as material presents a slip hazard.

### VII. Handling and Storage

**Precautions for safe handling:** Store in tightly closed containers to prevent moisture contamination. Do not reseal if contamination is suspected. Avoid contact with skin and eyes. Do not breathe aerosols or vapors. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Ensure good ventilation/exhaustion at the workplace. Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the restroom, or apply cosmetics.

**Conditions for safe storage including any incompatibilities:** Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Avoid freezing and drying of resin. Store in tightly closed containers to prevent moisture contamination.

### VIII. Exposure Controls / Personal Protection

**Appropriate Engineering Controls:** The best protection is to enclose operations and/or provide local exhaust ventilation at the site of chemical release in order to maintain airborne concentrations of the product below OSHA PELs (See Section 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

**Personal Protective Equipment:**

## Safety Data Sheet Steel Wrap Carbon Fiber

**Respiratory Protection:** Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134 and 1910.137) and, if necessary, wear a NIOSH approved respirator. Select respirator based on its suitability to provide adequate worker protection for given work conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA.

**Eye / Face Protection:** Wear splash-proof chemical goggles and face shield when working with liquid, unless full face piece respiratory protection is worn. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

**Skin Protection:** Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact.

### IX. Physical and Chemical Properties

<b>Physical Appearance:</b>	Black multifilament yarn
<b>Odor:</b>	Odorless None
<b>Odor Threshold:</b>	ND
<b>pH:</b>	ND
<b>Melting Point Range:</b>	NA
<b>Boiling point:</b>	ND
<b>Flash Point:</b>	NA
<b>Evaporation rate:</b>	ND
<b>Method Used:</b>	Pensky-Martens Closed Cup
<b>Flammability Limits (vol/vol%):</b>	<b>Lower:</b> N/A <b>Upper:</b> N/A
<b>Vapor Pressure:</b>	None
<b>Vapor Density:</b>	ND
<b>Relative Density:</b>	2.0 – 2.2 g/cm <sup>3</sup>
<b>Specific Gravity:</b>	ND
<b>Water Solubility:</b>	Insoluble.
<b>Partition coefficient (n-octanol/water):</b>	ND.
<b>Auto-ignition Temperature:</b>	ND
<b>Decomposition Temperature:</b>	ND
<b>Viscosity:</b>	ND

### X. Stability and Reactivity

**Reactivity:** No reactivity

**Chemical Stability:** Stable under normal handling and molding conditions.

**Possibility of Hazardous reactions:** No dangerous reactions known. Don't store in direct sunlight or high temperature, which may cause polymerization of sizing agent (but not hazardous).

**Conditions to Avoid:** Oxidizing agent.

**Incompatible Materials / Chemicals:** None known

**Hazardous Decomposition Products:** None known

### XI. Toxicological Information

**Acute toxicological data:**

For Carbon fiber

Inhalation-rat LC50: >64.4 mg/l (Calgon Carbon Corp.)

Oral-rat LD50: 10gm/kg (Calgon Carbon Corp.)

Intravenous-mouse LD50: 440 mg/kg

Reproductive effects: 167 mg/kg subcutaneous-rat TDLO 8 day(s) pregnant female continuous

## Safety Data Sheet Steel Wrap Carbon Fiber

For Sizing (epoxy resin): No data available

### Primary irritant effect:

Skin Irritation: This product can irritate the skin mechanically. And skin contact with the sizing agent may possibly cause allergic skin rash.

Eye Irritation: This product can irritate the eyes mechanically.

Mutagenicity: Ames test data of the sizing agent is positive.

### Symptoms:

**Inhalation:** No data available

**Eye Contact:** No data available

**Skin Contact:** No data available

**Ingestion:** No expected to occur

**Chronic Health Effects:** No data available

**Numerical measures of toxicity:** No data available

**Mutagenicity (Effects on genetic material):** No data available

**Reproductive toxicity:** No data available

**Other information (about experimental toxicology):**

**Carcinogenic Categories:** No data available

## XII. Ecological Information

**Ecotoxicity:** No data available

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available

**Other adverse effects:** No data available

## XIII. Disposal Considerations

**Waste treatment methods:** If discarded in its manufactured form, this product is not expected to be a characteristic or specifically listed hazardous waste under RCRA. However, it is the responsibility of the user to determine at the time of disposal whether a material containing the product or derived from the product should be classified as a hazardous waste.

**Uncleaned packaging:** Dispose of in accordance to all local, state, and/or national regulation. Clean up with filtered vacuum cleaner. Avoid generating airborne fibers and dust during clean up operations. Use appropriate personal protective equipment.

## XIV. Transport Information

**DOT Transportation Data (49 CFR 172.101):** This product is not regulated as dangerous or hazardous goods under DOT, IMO or IATA.

## XV. Regulatory Information

**EPA Regulations: Superfund Amendments and Reauthorization Act (SARA) Title III:** This product does not contain any substances reportable under Sections 302, 304, 313, (40 CFR 372). Sections 311 and 312 (40 CFR 370) apply (delayed hazard).

**Toxic Substances Control Act (TSCA):** All substances in this product are listed, as required, on the TSCA inventory.

**OSHA Regulations:** Comply with all applicable OSHA standards.

## XVI. Other Information

Key Legend Information:

Safety Data Sheet  
Steel Wrap Carbon Fiber

N/A – Not Applicable

ND – Not Determined

ACGIH – American Conference of Governmental Industrial Hygienists

OSHA – Occupational Safety and Health Administration

PEL – Permissible Exposure Limit

NIOSH – National Institute for Occupational Safety and Health

The information contained herein is based on the data available to us and is believed to be accurate. The data is offered in good faith as typical values and not as product specification. The information in this data sheet was compiled from information supplied by the vendors of the components of this compound. NRI makes no warranty either expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. The recommended industrial hygiene and safe handling procedures are believed to be genuinely applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate. NRI assumes no responsibility for injury from the use of the product described herein. The information is intended only to assist in the safe handling of this material.

(R1) Revision date: 10.21.15