

**Safety Data Sheet**  
**Thermo-Wrap CF Tape®**

**I. Product and Company Identification**

Product Name: Thermo-Wrap CF Tape  
 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 2  
 Serious eye damage/eye irritation – Category 2B  
 Skin sensitization - Category 1



GHS07

**Hazard Statements:**

H315 Causes skin irritation.  
 H320 Causes eye irritation.

**Signal Word:** Warning

**Precautionary Statement:**

P261 Avoid breathing dust  
 P280 Wear protective gloves  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Emergency Overview:** Black continuous carbon fiber. Not expected to present an immediate concern for emergency response personnel. Not expected to present an immediate health, reactivity, or flammability hazard. Not expected to present an environmental hazard.

**III. Composition/ Information on Ingredients**

Component	CAS #	% Composition
Carbon fiber	7440-44-0	70
Fibrous glass	65997-17-3	30

**IV. First Aid Measures**

**First Aid Measures for Accidental:**

**Eye Exposure:** Flush with copious amount of water. Preferably lukewarm, for at least 20 minutes, holding eyelids open at all times. Get medical attention.

**Skin Exposure:** Remove contaminated clothing. Wash affected skin thoroughly with soap and water. If fibers are imbedded in the skin, remove with tweezers. Wash contaminated clothing thoroughly before reuse. Seek medical attention if irritation develops after area is washed.

**Inhalation:** If there is inhalation exposure to the fibers, remove to an area free from risk of further exposure and move to fresh air. If not breathing give artificial respiration. Obtain medical attention.

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**Ingestion:** Not expected to occur since ingestion is not likely route of exposure for this product. If ingestion does occur, do not induce vomiting. Do not give anything by mouth to an unconscious person, consult a physician.

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

**Acute Inhalation:** Under very limited circumstances exposure to respirable fibers can occur and may result in respiratory tract irritation.

**Acute Eye:** Fragments of this product may cause mechanical eye irritation. Chemical irritation may occur from exposure to sizing present on the carbon fiber.

**Acute Skin contact:** May cause skin irritation. Chemical irritation may occur from exposure to sizing present on the carbon fiber.

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

**Notes to Physician:** No available

**V. Fire Fighting Measures**

**Extinguishing Media:** Carbon dioxide, foam, dry chemical, water fog.

**Special Fire Fighting Procedures:** As in any fire, wear a self-contained breathing apparatus pressure demand (MSHA/NIOSH approved or equivalent) and full protective gear. Fight fires from a safe distance or protected areas. Fire hoses with fog nozzles may be used for controlling fires but care must be exercised not to spread flaming. Water may not always be effective for large fires. This material is not expected to burn in fire. If this product is present in a fire, fight fire based on the presence of flammable materials, i.e., packaging material and the sizing may burn off the fiber.

**Special Protective Equipment for Fire-fighters:** Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by firefighters. Wear positive pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes helmet, coat, pants, boots, and gloves).

**Unusual Fire and Explosion Hazards:** Under high heat (> 750 °C), this product may react with oxygen to give off carbon oxides and other decomposition products.

**Hazardous Decomposition Materials (Under Fire Conditions):** Fiber or dust may glow in an oxygen: containing atmosphere above 50°C. When glowing, and during combustion CO/CO<sub>2</sub> is generated as well as the potential release of degradation products such as NH<sub>3</sub>, HCN and monomeric acrylonitrile.

**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:** In case of spill, collect spilled material and either reuse or dispose properly (e.g., sweep up, vacuum, etc) Chopped or milled carbon fibers may be slippery if spilled posing an accident risk.

**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.

**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. Storage at temperature between 64 °F and 86 °F. Keep away from humidity and water. Keep container tightly closed and sealed until ready for use.

**VIII. Exposure Controls / Personal Protection**

Component	Exposure limits		
	ACGIH	NIOSH	OSHA-PELs
Carbon fiber	10 mg/m <sup>3</sup> (inhalable)	ND	5 mg/m <sup>3</sup> (respirable)

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	3 mg/m <sup>3</sup> (respirable)		
Glass fiber	5 mg/m <sup>3</sup> (inhalable) (TWA) 1 fiber/cm <sup>3</sup> TWA (respirable)	ND	5 mg/m <sup>3</sup> (respirable dust)

**Appropriate Engineering Controls:** Local exhaust should be used to maintain levels below the TLV whenever MDI is processed, heated or spray applied. Standard reference sources regarding industrial ventilation (i.e., ACGIH Industrial Ventilation) should be consulted for guidance about adequate ventilation.

**Personal Protective Equipment:**

**Respiratory Protection:** In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

**Eye / Face Protection:** Wear appropriate safety glasses with side shields or chemical goggles as described by OSHA's eye and face protection regulations in 29CFR 1910.133 or European Standard EN166.

**Skin Protection:** The glove material has to be impermeable and resistant to the product. Cover as much of the exposed area as possible, with protective clothing.

**IX. Physical and Chemical Properties**

**Physical Appearance:** Woven/Knitted Carbon Fiber tape  
**Odor:** None  
**Odor Threshold:** ND  
**pH:** ND  
**Melting Point Range:** NA  
**Boiling point:** ND  
**Flash Point:** > 200°F (93°C)  
**Evaporation rate:** ND  
**Method Used:** Pensky-Martens Closed Cup  
**Flammability Limits (vol/vol%):** Lower: N/A Upper: N/A  
**Vapor Pressure:** None  
**Vapor Density:** ND  
**Relative Density:** ND  
**Specific Gravity:** 1.75 – 1.85 (carbon fiber)  
**Water Solubility:** Insoluble.  
**Partition coefficient (n-octanol/water):** ND.  
**Auto-ignition Temperature:** N/A  
**Decomposition Temperature:** ND  
**Viscosity:** ND

**X. Stability and Reactivity**

**Reactivity:** No reactivity

**Chemical Stability:** Stable

**Possibility of Hazardous reactions:** No dangerous reactions known. Hazardous polymerization will not occur.

**Conditions to Avoid:** None

**Incompatible Materials / Chemicals:** Do not expose to strong oxidizing agents such as fluorine. Carbon fiber can react violently with such compounds

**Hazardous Decomposition Products:** Not expected under normal conditions of processing and use. Thermal decomposition of sizing may begin to occur at high temperatures (> 120 °C) resulting in the release of small amounts of nitrogen oxides, carbon monoxide, organic compounds, and other potentially hazardous substances.

**XI. Toxicological Information**

**Acute toxicological data:** There are no acute toxicological data available on this product. The oral, dermal, and inhalation acute toxicity are expected to be very low.

**Primary irritant effect:**

Skin Irritation: No data available

Eye Irritation: No data available

Skin Sensitization: No data available

**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 legislation. Do not incinerate carbon fibers since airborne fibers may cause electrical malfunctions.

**XIV. Transport Information**

**U.S./international shipping information under DOT/IMO/IATA regulations:** This product is not regulated as dangerous or hazardous goods under DOT, IMO, ICAO, IATA, or UN shipping regulations.

**XV. Regulatory Information**

**Regulatory status:** This product, as well as its impurities, may trigger specific reporting, recordkeeping, and testing requirements under TSCA, EPCRA/SARA III, RCRA, CERCLA, CAA, DWA, and CWA.

**EPCRA/SARA Regulations:** This compound contains no toxic chemicals at or above the minimum threshold subject to the reporting requirements of Section 313 of Title III of the Superfund amendments and Reauthorization Act of 1986 and 40 CFR 372.

**California Proposition 65:** This product contains epichlorohydrin, a substance known to the State of California to cause cancer and reproductive toxicity. The maximum level of epichlorohydrin in this product is 2 ppm. This product also contains phenyl glycidyl ether, a

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substance known to the State of California to cause cancer. The maximum level of phenyl glycidyl ether in this product is 6 ppm. This information is provided to assist users of this product that conduct business in California in discharging any warning obligations that that person may have under California Proposition 65.

**XVI. Other Information**

**Key Legend Information:**

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.

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