

# MATERIAL SAFETY DATA SHEET

## **SECTION 1           CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME OR NUMBER:   **CARBON-CVD FABRICS™**

MANUFACTURER: HITCO Carbon Composites, Inc.

ADDRESS: 1600 W. 135th Street, Gardena, CA 90249

GENERAL ASSISTANCE: (310) 527-0700

24-HOUR EMERGENCY ASSISTANCE: CHEMTREC Assist: (800) 424-9300

DATE OF PREPARATION OR LAST CHANGE: December 20, 2011

## **SECTION 2           COMPOSITION/INFORMATION ON INGREDIENTS**

<u>CHEMICAL/ COMMON NAME</u>	<u>C.A.S. NUMBER</u>	<u>% BY WEIGHT</u>	<u>EXPOSURE GUIDELINES</u>
Carbon	7440-44-0	98-100	PEL 5 mg/m <sup>3</sup> (respirable) (OSHA), 10 mg/m <sup>3</sup> (total), as nuisance dust TLV 2 mg/m <sup>3</sup> (respirable.) (ACGIH), 10 mg/m <sup>3</sup> (total), as nuisance dust

## **SECTION 3           HEALTH HAZARD IDENTIFICATION**

### PRIMARY ROUTES OF ENTRY

EYE:                           The abrasive action of dust may damage the outer surface of the eye.

SKIN:                           The abrasive action of the dust may cause irritation.

INGESTION:                   Not a normal route of exposure. Accidental ingestion may cause gastrointestinal disturbances.

INHALATION:                 Machining, grinding, or sawing of the material may generate airborne dust including 7 – 12 micron diameter fibers. Prolonged or repeated exposure to respirable particles may cause respiratory tract irritation, coughing and pulmonary edema.

CARCINOGEN  
LISTINGS:                    NA

## MATERIAL SAFETY DATA SHEET

### **SECTION 4            FIRST AID MEASURES**

#### EMERGENCY/FIRST AID PROCEDURES

- EYE:**                            In case of contact immediately wash eyes with large amounts of water for 15 minutes, holding the eyelids apart to ensure thorough flushing. If irritation persists, seek medical attention.
- SKIN:**                            Wash gently with soap and luke warm water to remove dust and fibers.
- INGESTION:**                Drink extra water to assist natural elimination. Seek medical attention if gastrointestinal irritation persists or other symptoms such as nausea, vomiting, or abdominal pain occur.
- INHALATION:**                Move to fresh air. Drink water to clear throat and blow nose to remove fibers. Get immediate medical attention if necessary.

### **SECTION 5            FIRE FIGHTING MEASURES**

- EXTINGUISHING MEDIA:** Use extinguishing agent suitable for the surrounding fire.
- SPECIAL FIRE FIGHTING INSTRUCTIONS:** None
- FLASH POINT:** ND
- FLAMMABILITY LIMITS:** ND
- LOWER EXPLOSIVE LIMIT:** ND
- UPPER EXPLOSIVE LIMIT:** ND
- AUTO IGNITION TEMPERATURE:** Unknown

### **SECTION 6            ACCIDENTAL RELEASE MEASURES**

#### ACTION TO TAKE FOR SPILLS/LEAKS

NA

# **MATERIAL SAFETY DATA SHEET**

## **NOTIFICATION INFORMATION**

There are no specific reporting requirements for release of this material as supplied under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendment and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements for the release of this material at the local, regional or state level.

## **SECTION 7            HANDLING AND STORAGE**

### **HANDLING AND STORAGE PROCEDURES**

Protect electrical equipment from airborne contamination. Carbon fibers are electrically conductive and may cause short circuits resulting in damage to or malfunctioning of electrical equipment. Incineration may result in the release of airborne fibers. Do not eat, drink or smoke in areas of use or storage. Wash hands and face thoroughly after handling and before eating.

## **SECTION 8            EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **ENGINEERING CONTROLS/WORK PRACTICES**

#### **VENTILATION:**

Control airborne concentrations below the exposure guidelines specified by the Occupational Safety and Health Administration (OSHA) or other local, state, and federal regulations.

### **PERSONAL PROTECTIVE EQUIPMENT/PROTECTIVE MEASURES**

**RESPIRATORY PROTECTION:** Respiratory protection is not normally necessary. Protection is recommended when grinding, sanding, cutting, etc., or when handling large volumes to avoid exposure to any dust generated.

**PROTECTIVE CLOTHING:** Gloves recommended when handling. Protective clothing is not normally necessary except when grinding, sanding, breaking, cutting, etc., or when handling large amounts of material.

**EYE PROTECTION:** Eye protection is not normally necessary except when grinding, sanding, cutting, breaking, etc., or when handling large amounts that may cause generation of flying pieces or dust.

## MATERIAL SAFETY DATA SHEET

### **SECTION 9            PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE: Solid

COLOR: Different shades of Black, Gray, and Silver

SPECIFIC GRAVITY: 1.65-1.90

VAPOR PRESSURE: ND

VAPOR DENSITY (air=1): ND

MELTING POINT: Does not melt. Sublimes above 3500 °C

BOILING POINT: NA

EVAPORATION RATE (water=1): NA

% VOLATILE BY VOLUME: ND

SOLUBILITY IN WATER: Insoluble

pH: NA

### **SECTION 10           STABILITY AND REACTIVITY**

STABILITY: Stable

INCOMPATIBILITY: Avoid contact with strong oxidizers at elevated temperatures

HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition may be hazardous and may produce carbon monoxide and carbon dioxide.

HAZARDOUS POLYMERIZATION: Will not occur.

### **SECTION 11           DISPOSAL CONSIDERATION**

#### WASTE DISPOSAL METHOD

The transportation, storage, treatment, and disposal of this waste material must be conducted in compliance with all applicable Federal, state, and local regulations.

NA = Not Applicable

ND = Not Determined

MSDS – CARBON-CVD FABRICS™

Page 4 of 5

## MATERIAL SAFETY DATA SHEET

### **SECTION 12           TRANSPORTATION INFORMATION**

#### DOT INFORMATION

HAZARD CLASS: NA

PROPER SHIPPING NAME: NA

LABELS REQUIRED: NA

PLACARDS REQUIRED: NA

BILL OF LADING DESCRIPTION: Product Name

UN/NA CODE: NA

### **SECTION 13           REGULATORY INFORMATION**

Carbon is listed on the Toxic Substances Control Act (TSCA) inventory.

Carbon is listed on the Canadian Domestic Substances List (DSL) inventory.

This product is not classified under the hazard categories of the Superfund Amendments and Reauthorization Act (SARA) Section 311/312 (40 CFR 370)

### **SECTION 14           OTHER APPLICABLE INFORMATION**

#### INCINERATION:

Attempts to incinerate may cause fibers to become widely dispersed and result in failure of electrical equipment.

REVISION DATE:    December 20, 2011

SUPERSEDES:       March 22, 2005, July 28, 2008

NOTICE TO USERS: The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Data Safety Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by vender for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.