



Safety Data Sheet

Section 1: PRODUCT AND COMPANY IDENTIFICATION

SDS Identification Name: HexTow™ Carbon Fiber Unsized

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Supersedes SDS Number: 437-3427-0CAR-UN00-11

Manufacturer:

Hexcel®
6700 South 5400 West
West Valley City, UT. 84118

Emergency Telephone Number:

800-433-5072 (24-Hour) Hexcel®

Information Telephone Number:

801-252-3400 (Normal Business Hours-MT)

Product Identification Number: HexTow™ Carbon Fiber Unsized

Chemical Family: Carbon Fiber with No Sizing Applied

Section 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS® Number	% by Weight	OSHA (PEL)	ACGIH® (TLV®)
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Sizing Information:

No sizing applied

This product is not classified as a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Section 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance and Odor:

Black-colored fiber, no resin sizing applied with no distinctive odor

Statements of Hazard:

Warning! Processing may create a combustible dust and could result in fire and/or explosion should the necessary dust concentration in air and ignition source be present.

Warning! This may cause mild, temporary mechanical eye and skin irritation.

Prolonged or repeated contact may cause allergic skin reaction and possible sensitization.

Dust or particulate from machining, grinding or sawing the cured sized fiber may cause skin, eye and upper respiratory tract irritation, allergic skin reaction and possible sensitization.

Carbon dust, fibers or particulate are electrically conductive and may create electrical short-circuits that could result in damage to and malfunction of electrical equipment and/or personal injury.

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Section 3: HAZARDS IDENTIFICATION (Continued)

EMERGENCY OVERVIEW (continued):

Primary Routes of Exposure:

Eye--Yes Skin--Yes Inhalation--Yes Ingestion--No

HMIS[®] Rating:

Health--1 Flammability--1 Reactivity--0 Special--None

Potential Health Effects:

Eye: Contact may cause redness and mechanical irritation. Dust or particulate from machining, grinding or sawing the cured product may cause mechanical irritation.

Skin: Contact may cause mechanical irritation, redness, itching and drying of the skin. Prolonged or repeated contact may cause allergic skin reaction, dermatitis and possible sensitization. Dust or particulate from machining, grinding or sawing the cured product may cause mechanical irritation.

Inhalation: May cause mechanical irritation to the mucus membranes and upper respiratory tract. Dust or particulate from machining, grinding or sawing the cured product may cause irritation to the upper respiratory tract.

Ingestion: Very unlikely route of exposure. If ingested, this product or the dust or particulate from machining, grinding or sawing the cured product may be a stomach (gastric) irritant, but is not expected to cause any significant adverse effects.

Medical Conditions Aggravated by Exposure: Preexisting eye, skin or respiratory disorders may be aggravated by exposure to this product or to the dust or particulate generated from machining, grinding or sawing the cured product.

Carcinogenic Information: The components present in this material at concentrations equal to or greater than 0.1 % are not listed or regulated by IARC, NTP, OSHA or ACGIH[®] as a carcinogen.

Other:	OSHA (PEL)	ACGIH[®] (TLV[®])
Exposure limits for cured product	15 mg/m ³ (Total)	10 mg/m ³ (Inhalable)
dust as [Particulate Not Otherwise Regulated (PNOR) by OSHA or Classified (PNOC) by ACGIH [®]]:	5 mg/m ³ (Respirable)	3 mg/m ³ (Respirable)

Section 4: FIRST AID MEASURES

Eye: In case of contact with the product or the cured product dust or particulate, immediately flush the eye or eyes with large amounts of water for at least 15 minutes, keeping the eyelids open. Get medical attention immediately.

Skin: In case of contact with the product or the cured product dust or particulates, immediately wash the skin with mild soap and plenty of room temperature to cool running water. Use a washcloth to help remove the dust, fibers or particulate. To avoid further irritation, do not rub or scratch the irritated areas. Rubbing or scratching may force the dust, fibers or particulate into the skin. If the irritation persists, get medical attention immediately.

Section 4: FIRST AID MEASURES (Continued)

Inhalation: If dust, fibers or particulates are inhaled in a large quantity, remove to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. If breathing is difficult, qualified personnel may administer oxygen. Get medical attention immediately.

Ingestion: Ingestion of the product or the dust, fibers or particulate from it is unlikely. If swallowed, get medical attention immediately.

Section 5: FIRE FIGHTING MEASURES

Flash Point/Method of Determination: Not determined

Means of Extinction: Use water spray, dry chemical, foam or CO₂ to extinguish fires.

Special Fire Hazards: Avoid exposure through use of a self-contained positive-pressure breathing apparatus. Warning! Processing may create a combustible dust and could result in fire and/or explosion should the necessary dust concentration in air and ignition source be present.

Section 6: ACCIDENTAL RELEASE MEASURES

Procedures in case of Accidental Release or Leakage: Avoid contact with skin, eyes or clothing (See Section 8). Clean up material and put into a suitable container and dispose of properly (See Section 13).

Section 7: HANDLING AND STORAGE

Precautions to be taken in Handling and Storage: See label on container for the proper temperature. Maintain sealed against contamination from dirt and moisture.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye/Face Protection: Avoid eye contact. Wear coverall goggles, as necessary, if airborne dust, fiber or particulate are present. Wear safety glasses with side shields when machining, grinding or sawing the cured product.

Skin Protection: Wear protective clothing such as a loose fitting long sleeved shirt that covers to the base of the neck, long pants and gloves made of impervious materials, as appropriate, to cover skin areas and prevent irritation. Skin irritation is known to occur primarily at pressure points such as around the neck, wrist or waist and between the fingers.

Respiratory Protection: Not ordinarily required. If sufficient vapor or fumes are being generated during heating or curing of the product, use a NIOSH approved organic vapor respirator. If sufficient dust, fibers or particulate are generated during use or during machining, grinding or sawing the cured product, use a NIOSH approved dust respirator.

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Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (Continued)

Ventilation: Use local exhaust sufficient to control dust, fibers or particulate, vapor or fumes generated to below acceptable exposure limits. If an exhaust ventilation is not available or is inadequate, use a NIOSH approved respirator, as appropriate. Discharge from the ventilation system should comply with applicable air pollution control regulations. Electrical systems, in areas where the product is handled, must be satisfactory for operation in an environment containing electrically conductive dust, fibers or particulate.

General Hygiene Recommendations: Before eating, drinking, smoking or using toilet facilities, wash face and hands thoroughly with soap and water. Use vacuum equipment to remove the product or the cured product dust, fibers or particulate from clothing and work areas. Compressed air is not recommended.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor	Black-colored fiber, no resin sizing applied with no distinctive odor
Melting Point (°F/°C)	Carbon fiber: 6512°F/3600°C
Specific Gravity (Water=1)	1.7-1.8
pH of Undiluted Product	Not determined
Vapor Pressure (mm Hg.)	Not determined
Vapor Density (Air=1)	Not determined
Viscosity	Not determined
Percent (%) VOC	Not determined
Volatile [Percent (%) by Weight] .	<1
Solubility in Water	Negligible

Section 10: STABILITY AND REACTIVITY

Stability: Stable under normal handling conditions.

Incompatible Materials: None.

Products evolved from Heat of Combustion or Decomposition: The products of combustion and decomposition depend on other materials present in the fire and the actual conditions of the fire. Burning will produce carbon oxides and other unidentified gases and vapors that may be toxic. void inhalation.

Hazardous Polymerization: Will not occur under normal conditions of use.

Section 11: TOXICOLOGICAL INFORMATION

Component Toxicity Data:

Median Lethal Dose (Species):

Oral (LD₅₀)...Not determined
Dermal (LD₅₀)...No determined
Inhalation (LD₅₀)...Not determined

Irritation Index, Estimation of Irritation (Species):

Skin...Not determined
Eye...Not determined
Inhalation (LC₅₀)...Not determined
Sensitization...Not determined

Other:

Mutagenic...Polyacrylonitrile (PAN)-based carbon fiber:
 ...Ames Test-5 tester strains-Negative
 ...Sister chromatid exchange (In-vitro mammalian cell systems)-Negative
 ...Unscheduled DNA synthesis assays (In-vitro mammalian cell systems)-
 Negative
 ...Polynuclear aromatic hydrocarbon in extracts-Negative

Section 12: ECOLOGICAL INFORMATION

Total Product Data:

No ecological data has been determined on the total product.

Section 13: DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Material for disposal should be placed in appropriate sealed containers to avoid potential human and environmental exposure. It is the responsibility of the generator to comply with all federal, state, provincial and local laws and regulations. We recommend that you contact an appropriate waste disposal contractor and environmental agency for relevant laws and regulations. Under the U.S., Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets relevant waste classification and to assure proper disposal.

Section 14: TRANSPORT INFORMATION

DOT:

Proper Shipping Name....	Not regulated
Hazard Class.....	Not regulated
Identification Number....	Not regulated
Packing Group.....	Not regulated
Label Required.....	None

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Section 15: REGULATORY INFORMATION

SARA Title III:

Section 302/304 Extremely Hazardous Substance:

None

Section 311 Hazardous Categorization:

None

Section 313 Toxic Chemicals:

None

CERCLA Section 102(a) Hazardous Substance:

None

RCRA Information: Currently, this product is not listed in federal hazardous waste regulations 40 CFR, Part 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. State or local hazardous waste regulations may also apply if they are different from the federal regulation. It is the responsibility of the user of the product to determine at the time of disposal, whether the product meets relevant waste classification and to assure proper disposal.

WHMIS (Canada):

Classification:

None

This product has been classified in accordance with hazard criteria of the "Controlled Products Regulations" and this SDS contains all the information required by the "Controlled products Regulations."

Ingredient Disclosure List:

None

U.S., EPA and TSCA Information: This product is an article as defined by TSCA and is not required to be listed in the TSCA Inventory.

Ozone Depletion Information: This product does not contain or is not manufactured with ozone depleting substances as identified in Title VI, Clean Air Act "Stratospheric Ozone Protection" and the regulations set forth in 40 CFR, Part 82.

Section 16: OTHER INFORMATION

Special Precautions: Airborne carbon dust, fibers or particulate are electrically conductive and may create electrical short-circuits which could result in damage to or malfunctioning of electrical equipment and/ or personal injury.

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Section 16: OTHER INFORMATION (Continued)

Explanation and Disclaimer: Wherever such words or phrases as "hazardous," "toxic," "carcinogen," etc. appear herein, they are used as defined or described under state employee right-to-know laws, Federal OSHA laws or the direct sources for these laws such as the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), etc. The use of such words or phrases should not be taken to mean that we deem or imply any substance or exposure to be toxic, hazardous or otherwise harmful. **Any exposure can only be understood within the entire context of its occurrence, which includes such factors as the substance's characteristics as defined in the SDS, amount and duration of exposures, other chemicals present and preexisting individual differences in response to the exposure.**

The data provided in this SDS is based on the information received from our raw material suppliers and other sources believed to be reliable. We are supplying you this data solely in compliance with the Federal OSHA Hazard Communication Standard, 29 CFR 1910.1200 and other Federal and state laws as described in Section 15: Regulatory Information.

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Revision History:

12/18/12 update to new format, added combustible phrase

04/11/07 changed Magnamite[®] to HexTow[™]. Deleted carbon from section 2, not considered hazardous by OSHA and ACGIH[®]. Deleted Prop 65, product not manufactured in CA.