

MATERIAL SAFETY DATA SHEET

West System Inc.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: WEST SYSTEM® 702 and 703 Episize™ Unidirectional Carbon Tapes

PRODUCT CODE: 702 and 703

CHEMICAL FAMILY: Carbon

CHEMICAL NAME: Carbon fiber (graphite fiber)

MANUFACTURER:

West System Inc.
102 Patterson Ave.
Bay City, MI 48706, U.S.A.
Phone: 866-937-8797 or 989-684-7286
www.westsystem.com

EMERGENCY TELEPHONE NUMBERS:

Transportation
CHEMTREC: 800-424-9300 (U.S.)
703-527-3887 (International)
Non-transportation
Poison Hotline: 800-222-1222

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HMIS Hazard Rating: **Health - 1**

Flammability - 1

Physical Hazards - 0

CAUTION! Nuisance dust. Avoid inhalation of airborne fibers. Skin and eye exposure may cause physical or mechanical irritation. Black Fiber.

PRIMARY ROUTE(S) OF ENTRY: Inhalation, skin contact.

POTENTIAL HEALTH EFFECTS:

ACUTE INHALATION: Possible mechanical irritation to the respiratory tract.

CHRONIC INHALATION: No information that provides evidence of long term effects.

ACUTE SKIN CONTACT: Can cause mechanical irritation.

CHRONIC SKIN CONTACT: No information that provides evidence of long term effects.

EYE CONTACT: Can cause mechanical irritation.

INGESTION: No information that provides evidence of adverse health effects.

SYMPTOMS OF OVEREXPOSURE: Respiratory tract irritation. Skin and eye irritation.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Respiratory conditions such as asthma.

3. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

<u>INGREDIENT NAME</u>	<u>CAS#</u>	<u>CONCENTRATION (%)</u>
Carbon fiber, polyacrylonitrile based	7440-44-0	100

4. FIRST AID MEASURES

FIRST AID FOR EYES: Flush with water to remove particle. If effects persist, seek medical advice.

FIRST AID FOR SKIN: Wash with soap and water.

FIRST AID FOR INHALATION: Remove to fresh air. If effects persist, treat symptomatically. Contact a physician.

FIRST AID FOR INGESTION: No specific instructions.

5. FIRE FIGHTING MEASURES

FLASH POINT: Not flammable.

EXTINGUISHING MEDIA: CO₂, dry chemical, foam or water spray.

SPECIAL FIRE FIGHTING PROCEDURES:..... No specific information.

6. ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES: Sweep or shovel into a sealed container. If a vacuum system is used, it should be fully capable of handling a conductive material with no risk of electrical shock to the operator. Perform cleanup in a manner that minimizes airborne fibers.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE (min./max.): 40°F (4°C)/100°F (38°C)

STORAGE: Store away from exposed or intricate electrical circuitry.

HANDLING PRECAUTIONS: Handle in a manner that minimizes airborne fibers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION GUIDELINES: Safety glasses with side shields or goggles, depending on the expected level of exposure.

SKIN PROTECTION GUIDELINES: Use rubber or plastic gloves to protect hands from mechanical irritation. Use a protective clothing that is not easily penetrated by the fibers, such as a coated Tyvek™ material, to protect otherwise exposed skin areas.

RESPIRATORY/VENTILATION GUIDELINES: Work environments should be maintained below applicable inhalation exposure levels through the use of engineering controls, such as dilution and exhaust ventilation or containment. If this is not feasible, use a NIOSH approved nuisance dust respirator.

ADDITIONAL PROTECTIVE MEASURES: Remove and clean contaminated clothing before reuse.

OCCUPATIONAL EXPOSURE LIMITS: This product should be treated as a nuisance particulate or Particulate Not Otherwise Classified (PNOC). Refer to OSHA's Permissible Exposure Level (PEL) or the ACGIH Guidelines for information on specific ingredients.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM Fiber.
COLOR Black.
ODOR Odorless.
BOILING POINT No data.
MELTING POINT/FREEZE POINT 6512°F (3600°C).
pH Not applicable.
SOLUBILITY IN WATER Negligible, below 0.1%.
SPECIFIC GRAVITY No data.
BULK DENSITY No data.
VAPOR PRESSURE Not applicable.
VAPOR DENSITY Not applicable.
% VOLATILE BY WEIGHT No data.

10. STABILITY AND REACTIVITY

STABILITY: Stable.

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITIES: Electrical equipment and intricate circuitry.

DECOMPOSITION PRODUCTS: Carbon monoxide (CO), carbon dioxide (CO₂) and oxides of nitrogen from combustion.

11. TOXICOLOGICAL INFORMATION

Oral: No information.
Inhalation: See information below.
Dermal: No information.

These Carbon Fibers are non-crystalline (amorphous), man-made fibers. Studies conducted indicate that airborne carbon fibers, in general, are not considered respirable. A typical carbon fiber may be characterized as having a large diameter (5 to 7 microns) in addition to great length (>100 microns). Fibers with diameters >3.5 microns are not considered respirable.

No adverse health effects were seen in rats from a 16-week inhalation exposure to polyacrylonitrile based carbon fibers. No component of this product present at levels greater than 0.1% is identified as a carcinogen.

CARCINOGENICITY:

NTP..... No.
IARC No.
OSHA..... No.

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA, NTP or IARC.

12. ECOLOGICAL INFORMATION

No specific information.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:..... Knowledge of materials reveals that this product is not a hazardous waste in its purchased form as per RCRA criteria, either by characteristics or by listing. However, it is the responsibility of the end user to determine proper disposal methods. Landfill disposal is preferred.

14. TRANSPORTATION INFORMATION**DOT**

D.O.T. SHIPPING NAME:..... Not regulated by D.O.T.
TECHNICAL SHIPPING NAME:..... Not applicable.
D.O.T. HAZARD CLASS:..... Not applicable.
U.N./N.A. NUMBER:..... Not applicable.
PACKING GROUP:..... Not applicable.

IATA

SHIPPING NAME:..... Not regulated.
TECHNICAL SHIPPING NAME:..... Not applicable.
HAZARD CLASS:..... Not applicable.
U.N. NUMBER:..... Not applicable.
PACKING GROUP:..... Not applicable.

15. REGULATORY INFORMATION

OSHA STATUS:..... Hazardous. Nuisance dust.

TSCA STATUS:..... All components of this product are in compliance with TSCA Inventory requirements.

Canada WHIMIS Classification: No data.

SARA TITLE III:

SECTION 313 TOXIC CHEMICALS..... None.

STATE REGULATORY INFORMATION:

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of this MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

COMPONENT NAME**/CAS NUMBER****CONCENTRATION****STATE CODE**

None known.

16. OTHER INFORMATION

REASON FOR ISSUE:..... Changes made in sections: 11, 14 & 15.
PREPARED BY:..... G. M. House
APPROVED BY:..... G. M. House
TITLE:..... Health, Safety & Environmental Manager
APPROVAL DATE:..... February 10, 2011
SUPERSEDES DATE:..... January 3, 2008
MSDS NUMBER:..... 702-11a

Note: The Hazardous Material Indexing System (HMIS), cited in the Emergency Overview of Section 3, uses the following index to assess hazard rating: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; and 4 = Severe.

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