

MATERIAL SAFETY DATA SHEET

West System Inc.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:.....WEST SYSTEM® 423™ Graphite Powder.
PRODUCT CODE:.....423
CHEMICAL FAMILY:.....Carbon.
CHEMICAL NAME:.....Natural Graphite.
FORMULA:.....C

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 - 0** **Physical Hazards - 0**

DANGER! Possible respiratory dust cancer hazard. Nuisance dust. Avoid inhalation of airborne dust. Black/gray odorless powder.

PRIMARY ROUTE(S) OF ENTRY:..... Inhalation.

POTENTIAL HEALTH EFFECTS:

ACUTE INHALATION:..... If exposure limits are exceeded, the respiratory tract may become irritated. May cause shortness of breath, coughing and/or chest tightness due to temporary physical overloading of the lungs.

CHRONIC INHALATION:..... Prolonged or repeated inhalation of dust may cause pulmonary fibrosis or emphysema. Possible lung cancer hazard.

ACUTE SKIN CONTACT:..... Mild irritation.

CHRONIC SKIN CONTACT:..... No evidence of long-term health effects.

EYE CONTACT:..... Moderate irritation.

INGESTION:..... No information.

SYMPTOMS OF OVEREXPOSURE:..... Respiratory irritation, shortness of breath or coughing. Red, irritated skin. Eye irritation.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:..... Emphysema, asthma or other respiratory conditions.

3. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

<u>INGREDIENT NAME</u>	<u>CAS#</u>	<u>CONCENTRATION</u>
Natural flake graphite	7782-42-5	96 - 100%
Crystalline silica (quartz)	14808-60-7	0 - 4%

4. FIRST AID MEASURES

FIRST AID FOR EYES:..... Flush adequately with water to remove particles. If discomfort persists, seek medical advice.

FIRST AID FOR SKIN:..... Wash with soap and water.

FIRST AID FOR INHALATION:..... Remove to fresh air if effects occur. If effects persists, seek medical advice.

FIRST AID FOR INGESTION: No information.

5. FIRE FIGHTING MEASURES

FLASH POINT: Not applicable.

EXTINGUISHING MEDIA: Water.

SPECIAL FIRE FIGHTING PROCEDURES: Spray with water.

6. ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES: Sweep and shovel or use properly grounded vacuum equipment. Do so in a manner that minimizes airborne dust.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE (min./max.): 0°F (-17°C)/100°F (38°C).

STORAGE: Keep away from oxidizing agents.

HANDLING PRECAUTIONS: Avoid handling that will unnecessarily generate airborne dust. Graphite is a good conductor of electricity. Exercise caution when handling in areas where contact with electrical circuitry is possible.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION GUIDELINES: Safety glasses or goggles are recommended, depending on the expected level of exposure.

SKIN PROTECTION GUIDELINES: Areas expected to have repeated exposure, such as hands, may need to be protected by an impervious material to prevent dryness and irritation. Barrier creams can be used effectively.

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

ADDITIONAL PROTECTIVE MEASURES: Practice good industrial hygiene by washing with soap and water after each use. Avoid excessive inhalation. Generally speaking, working cleanly and following basic precautionary measures will greatly minimize the potential for harmful exposure to this product under normal use conditions.

OCCUPATIONAL EXPOSURE LIMITS: This product should be treated as a nuisance dust. Refer to OSHA's Permissible Exposure Level (PEL) or the ACGIH Guidelines for information on specific ingredients.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM Powder.
COLOR Gray/Black.
ODOR Odorless.
BOILING POINT No data.
MELTING POINT/FREEZE POINT Sublimes at 3650°C.
pH No data.
SOLUBILITY IN WATER Insoluble.
SPECIFIC GRAVITY 1.80 to 2.25
BULK DENSITY 3.755 pounds/gallon.
VAPOR PRESSURE Not applicable.
VAPOR DENSITY Not applicable.
% VOLATILE BY WEIGHT Zero.

10. STABILITY AND REACTIVITY

STABILITY: Stable.

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITIES: Oxidizing agents.

DECOMPOSITION PRODUCTS: Carbon monoxide (CO) and carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

CARCINOGENICITY:

NTP..... Yes (crystalline silica, may be present at 0 - 4% in this product)
 IARC Yes (crystalline silica, may be present at 0 - 4% in this product)
 OSHA..... No.

International Agency for Research on Cancer (IARC) Monograph Vol. 68, 1997, concludes that there is sufficient evidence that inhaled crystalline silica causes cancer in humans. IARC Classification is Group 1.

12. ECOLOGICAL INFORMATION

No information.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: This material is determined not to be a hazardous waste as per RCRA standards, either by listing or characteristics. Disposer must comply with all federal, state and local laws. Landfill is the preferred disposal method.

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. Possible carcinogen.

TSCA STATUS: All components are listed on TSCA Inventory or otherwise comply with TSCA requirements.

Canada WHIMIS Classification: No data.

SARA TITLE III:

SECTION 313 TOXIC CHEMICALS None.

STATE REGULATORY INFORMATION:

The following chemicals are specifically listed or otherwise regulated by individual states. For details on your regulatory requirements you should contact the appropriate agency in your state.

COMPONENT NAME

/CAS NUMBER

CONCENTRATION

STATE CODE

Crystalline Silica
14808-60-7

0 -4%

¹CA

¹: These substances are known to the state of California to cause cancer or reproductive harm, or both.

16. OTHER INFORMATION

REASON FOR ISSUE: Changes made in Sections 14 & 15.

PREPARED BY: G. M. House

APPROVED BY: G. M. House

TITLE: Health, Safety & Environmental Manager

APPROVAL DATE: February 6, 2011
SUPERSEDES DATE: January 3, 2008
MSDS NUMBER: 423-11a

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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