

# MATERIAL SAFETY DATA SHEET

## West System Inc.

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** ..... WEST SYSTEM® 406™ Colloidal Silica.  
**PRODUCT CODE:** ..... 406  
**CHEMICAL FAMILY:** ..... Silicon.  
**CHEMICAL NAME:** ..... Silicon dioxide (amorphous).  
**FORMULA:** ..... SiO<sub>2</sub>

**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**

CAUTION! Static ignition hazard. Avoid excessive breathing of airborne dust. White, fluffy powder with no odor.

**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 temporarily physically overloading the lungs.

**CHRONIC INHALATION:**..... May aggravate existing respiratory conditions. May cause dryness of mucous membranes of the respiratory tract.

**ACUTE SKIN CONTACT:** ..... May cause irritation and dryness.

**CHRONIC SKIN CONTACT:**..... Repeated exposure may cause dermatitis due to drying of the skin.

**EYE CONTACT:**..... May cause irritation, redness and tearing.

**INGESTION:**..... No known health effects.

**SYMPTOMS OF OVEREXPOSURE:** ..... Coughing, shortness of breath or irritation of the respiratory tract. Dry, chapped or irritated skin. Irritated or tearing eyes.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:**  
Skin and respiratory conditions, such as dermatitis and asthma.

### 3. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

<u>INGREDIENT NAME</u>	<u>CAS#</u>	<u>CONCENTRATION</u>
Fumed Amorphous Silica	112945-52-5	99%

### 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. Apply moisturizing cream to replenish moisture in the skin if necessary.

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

**FIRST AID FOR INGESTION:**..... No specific information.

**5. FIRE FIGHTING MEASURES**

**FLASH POINT:**..... Greater than 535°F (COC, ASTM D-92).

**EXTINGUISHING MEDIA:**..... Water, dry chemical, halon or foam.

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

**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 dry.

**HANDLING PRECAUTIONS:**..... Avoid handling that will unnecessarily generate airborne dust. Properly ground all material handling equipment to prevent static discharge.

**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. 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. Apply moisturizing cream to replenish moisture if necessary. 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**..... White.  
**ODOR**..... Odorless.  
**BOILING POINT**..... No data.  
**MELTING POINT/FREEZE POINT**..... No data.  
**pH**..... No data.  
**SOLUBILITY IN WATER**..... Insoluble.  
**SPECIFIC GRAVITY**..... 2.2  
**BULK DENSITY**..... 0.33 pounds/gallon.  
**VAPOR PRESSURE**..... Not Applicable.  
**VAPOR DENSITY**..... Not Applicable.  
**% VOLATILE BY WEIGHT**..... 0.0 (0.0 g/L)

**10. STABILITY AND REACTIVITY**

**STABILITY:**..... Stable.

**HAZARDOUS POLYMERIZATION:**..... Will not occur.

**INCOMPATIBILITIES:**..... A chemical reaction is possible with strong bases or hydrofluoric acid.

**DECOMPOSITION PRODUCTS:**..... Can include carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>).

**11. TOXICOLOGICAL INFORMATION**

Oral:..... LD<sub>50</sub> >5000 mg/kg (rats)  
 Inhalation:..... LD<sub>50</sub> > 2.08 mg/L 4hr.  
 Dermal:..... LD<sub>50</sub> >5000 mg/kg (rabbits)

Data from chronic inhalation of treated and untreated silicas are currently under review.

**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 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. Waste product may be sent to a landfill.

**14. TRANSPORTATION INFORMATION**

**DOT**

D.O.T. SHIPPING NAME: ..... Not regulated by DOT.  
 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 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.

<u>COMPONENT NAME</u> <u>/CAS NUMBER</u>	<u>CONCENTRATION</u>	<u>STATE CODE</u>
Amorphous Silica 112945-52-5	99%	MA, NJ, RI

**16. OTHER INFORMATION**

**REASON FOR ISSUE:**..... Changes made in Sections 3, 11, 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:** ..... 406-11a

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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