

# 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. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

<u>INGREDIENT NAME</u>	<u>CAS#</u>	<u>CONCENTRATION</u>
Silicon dioxide	7631-86-9	99%

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

**HMIS Hazard Rating:**    **Health - 1**        **Flammability - 0**        **Reactivity - 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.

**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.

**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:**

<b>PHYSICAL FORM</b> .....	Powder.
<b>COLOR</b> .....	White.
<b>ODOR</b> .....	Odorless.
<b>BOILING POINT</b> .....	No data.
<b>MELTING POINT/FREEZE POINT</b> .....	No data.
<b>pH</b> .....	No data.
<b>SOLUBILITY IN WATER</b> .....	Insoluble.
<b>SPECIFIC GRAVITY</b> .....	2.2
<b>BULK DENSITY</b> .....	0.33 pounds/gallon.
<b>VAPOR PRESSURE</b> .....	Not Applicable.
<b>VAPOR DENSITY</b> .....	Not Applicable.
<b>% VOLATILE BY WEIGHT</b> .....	0.0 (0.0 g/L)

**10. 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)

**CARCINOGENICITY:**

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

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

**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:**

**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.

**15. REGULATORY INFORMATION:**

**OSHA STATUS:** ..... Hazardous. Nuisance dust.  
**TSCA STATUS:** ..... All components are listed on TSCA inventory.  
**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.

<b><u>COMPONENT NAME</u></b>	<b><u>CONCENTRATION</u></b>	<b><u>STATE CODE</u></b>
<b><u>/CAS NUMBER</u></b>		

None known.

**16. OTHER INFORMATION:**

**REASON FOR ISSUE:** ..... Update in Section 1.  
**PREPARED BY:** ..... T. J. Atkinson  
**APPROVED BY:** ..... G. M. House

**TITLE:** ..... Health, Safety & Environmental Manager  
**APPROVAL DATE:** ..... January 3, 2005  
**SUPERSEDES DATE:** ..... January 5, 2004  
**MSDS NUMBER:** ..... 406-05a

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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