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: ...................... SiO₂

MANUFACTURER:
Gougeon Brothers, Inc.
100 Patterson Avenue
Bay City, MI 48706, U.S.A.
Phone: 989-684-7286

EMERGENCY TELEPHONE NUMBERS:
Transportation
CHEMTREC: ..........800-424-9300

Non-transportation
Poison Hotline: .......313-745-5711

2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>CAS#</th>
<th>CONCENTRATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon dioxide</td>
<td>7631-86-9</td>
<td>99%</td>
</tr>
</tbody>
</table>

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 persist, 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)

SHELF LIFE: Several years if stored properly.

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:

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 .............................. Zero.

10. REACTIVITY:

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

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

INCOMPATIBILITIES: ................................. A chemical reaction is possible with strong bases or hydrofluoric acid.
11. TOXICOLOGICAL INFORMATION:

Oral: ................................................. LD₅₀ >5000 mg/kg (rats)
Inhalation: ........................................ LD₅₀ > 2.08 mg/L 4hr.
Dermal: ............................................ LD₅₀ >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:

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.

COMPONENT NAME /CAS NUMBER                   CONCENTRATION                   STATE CODE
None known.
16. OTHER INFORMATION:

    REASON FOR ISSUE: ........................................... Information update in Section 2, 15 and 16.
    PREPARED BY: ............................................... T. J. Atkinson
    APPROVED BY: .............................................. G. M. House
    TITLE: ............................................................ Health, Safety & Environmental Manager
    APPROVAL DATE: ............................................. January 5, 2001
    SUPERSEDES DATE: .......................................... January 3, 1998
    MSDS NUMBER: .............................................. 406-01a

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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