SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: WEST SYSTEM® 406 Colloidal Silica
APPLICABLE PRODUCT CODES: 406, 406-2, 406-7, 406-B.
CHEMICAL FAMILY: Synthetic amorphous pyrogenic silica.
INTENDED PRODUCT USES: Thickening agent for liquid epoxy resins.
PRODUCT RESTRICTIONS: None identified.

MANUFACTURER:
Gougeon Brothers, Inc.
100 Patterson Ave.
Bay City, MI 48706, U.S.A.
Phone: 866-937-8797 or 989-684-7286
www.westsystem.com

2. HAZARDS IDENTIFICATION

Classification of Substance or Mixture

None

Label Elements

Hazard Pictogram(s):
None

Signal Word:
None

Hazard Statements:
None

Precautionary Statements:
None

Other Hazards

Handling and conveyance of material may create static electrical charge. Earth/ground handling and processing equipment to prevent against static discharge.

3. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>CAS #</th>
<th>CONCENTRATION (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthetic amorphous pyrogenic silica</td>
<td>112945-52-5</td>
<td>80-100</td>
</tr>
</tbody>
</table>

The exact chemical identity and/or exact percentage (concentration) of each ingredient may be held as confidential business information (CBI). Any ingredient not disclosed in this section may have been determined not to be hazardous to health or the environment, or it may be present at a level below its disclosure threshold.

4. FIRST AID MEASURES

FIRST AID FOR EYES: Excessive exposure may cause irritation and tearing. RESPONSE: Flush with water for at least 15 minutes. Remove contact lenses if present and easy to do. Consult a physician as a precautionary measure if symptoms develop and persist.

FIRST AID FOR SKIN: May cause skin dryness or slight irritation. RESPONSE: Wash with mild soap and water. Consult a physician if effects occur and persist.

FIRST AID FOR INHALATION: Excessive exposure may cause coughing, respiratory irritation or shortness of breath due to temporary lung overload. RESPONSE: Remove to fresh air if symptoms develop and keep comfortable for breathing. Seek medical advice if symptoms persist.

FIRST AID FOR INGESTION: No acute adverse health effects expected from amounts ingested under normal conditions of use. RESPONSE: Seek medical attention if a significant amount is ingested.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Foam, carbon dioxide (CO₂), water, or dry chemical. Fog or mist is recommended if water is used. NON-SUITABLE: Avoid using high pressure media.
WEST SYSTEM® 406 Colloidal Silica

FIRE AND EXPLOSION HAZARDS: This product will not support combustion. Will not form combustible dust concentrations in the air.
SPECIAL FIRE FIGHTING PROCEDURES: Wear a self-contained breathing apparatus and complete full-body personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES: Keep unnecessary and unprotected personnel from entering area. Use appropriate safety and personal protective equipment as indicated in Section 8.
MITIGATION AND CLEAN UP PROCEDURES: Use methods that avoid generating airborne dust. Use a vacuum with high efficiency particulate air (HEPA) filtration is recommended. Avoid creating a dust cloud by brushing or sweeping, or using compressed air.
ENVIRONMENTAL PRECAUTIONS: Contain spilled product to the extent practical and feasible.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE (min./max.): 0°F (-17°C) / 100°F (38°C)
STORAGE: Store in cool, dry place. Store in sealed containers to prevent moisture absorption or absorption of other volatile materials.
HANDLING PRECAUTIONS: Avoid dust formation. Avoid breathing dust. Wash after handling. Provide appropriate exhaust ventilation at points of operation where dust can be generated. Avoid using compressed air. Take precautionary measures against static discharges. Metal parts of mixing and processing equipment should be earthed/grounded.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use with adequate general ventilation and/or local ventilation to keep exposures below established limits.
EYE PROTECTION GUIDELINES: Safety glasses with side shields, or goggles if necessary.
SKIN PROTECTION GUIDELINES: Gloves or a barrier cream may be useful to help prevent skin from drying.
RESPIRATORY PROTECTION GUIDELINES: When ventilation cannot be made adequate enough to keep exposures below established limits, use a NIOSH approved respirator with particulate filter, such as a N95 or greater, depending on specific workplace conditions. Consult with your respirator and cartridge supplier to ensure proper selection of respirator and cartridge based on ingredients listed in Section 3 and specific workplace conditions. Use and select a respirator according the guidelines established in OSHA 1910.134 or other applicable respiratory protection standard.
ADDITIONAL PROTECTIVE MEASURES: Practice good caution and personal cleanliness to avoid skin and eye contact. Wash thoroughly after handling. Generally speaking, working cleanly and following basic precautionary measures will greatly minimize the exposure to this product under normal use conditions.

OCCUPATIONAL EXPOSURE LIMITS: Exposure limits may not be established for this product as a whole. For established exposure limits of specific ingredients in this product, or other available exposure limit information, refer to the table below.

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS#</th>
<th>Exposure Limit Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthetic amorphous pyrogenic silica</td>
<td>112945-52-5</td>
<td>Amorphous silica: OSHA PEL 6 mg/m³ Dust and PNOS: ACGIH 10mg/m³, TWA, Inhalable: 3 mg/m³, TWA, Respirable: OSHA PEL 15 mg/m³, TWA, total dust: 5 mg/m³, TWA, Respirable</td>
</tr>
</tbody>
</table>

9. PHYSICAL AND CHEMICAL PROPERTIES

| PHYSICAL FORM: | Powder, solid. |
| COLOR:         | White.         |
| ODOR:          | None.          |
| ODOR THRESHOLD:| No data available |
| pH:            | No data available |
| MELTING POINT / FREEZING POINT: | No data available |
| BOILING POINT (760mm/Hg): | No data available |
| FLASH POINT:   | No data available |
| AUTO IGNITION TEMPERATURE: | No data available |
| LOWER EXPLOSIVE LIMIT (LEL): | No data available |
| UPPER EXPLOSIVE LIMIT (UEL): | No data available |
| VAPOR PRESSURE: | No data available |
| SPECIFIC GRAVITY/DENSITY (water = 1): | 2.2 |
| BULK DENSITY:  | No data available |
10. STABILITY AND REACTIVITY

STABILITY: Product is stable at normal temperatures and pressures.

REACTIVITY/HAZARDOUS REACTIONS: Product will not react by itself.

INCOMPATIBILITIES: None known.

CONDITIONS TO AVOID: Avoid excessive airborne dust formation.

DECOMPOSITION PRODUCTS: None known.

11. TOXICOLOGICAL AND HAZARD ENDPOINT INFORMATION

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS#</th>
<th>LD₅₀ Oral (mg/kg)</th>
<th>LD₅₀ Dermal (mg/kg)</th>
<th>LC₅₀ Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthetic amorphous pyrogenic silica</td>
<td>112945-52-5</td>
<td>&gt;5000</td>
<td>&gt;2000</td>
<td>No data</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OECD 401</td>
<td></td>
</tr>
</tbody>
</table>

ACUTE TOXICITY: No specific toxicity data exists for this mixture. Classification is based on acute toxicity estimation methods using ingredient data.

Oral: Not classified. Does not meet acute oral toxicity criteria.
Dermal: Not classified. Does not meet acute dermal toxicity criteria.
Inhalation: Not classified. Does not meet acute inhalation toxicity criteria.

SKIN CORROSION/IRRITATION: Not classified. Does not meet criteria for skin corrosion/irritation.

SERIOUS EYE DAMAGE/IRRITATION: Not classified. Does not meet criteria for skin eye damage/irritation, OECD 405. High dust concentrations may cause mechanical irritation.

RESPIRATORY SENSITIZATION: Not classified. Does not meet criteria for respiratory sensitizer.

SKIN SENSITIZATION: Not classified. Does not meet criteria for skin sensitization.

REPRODUCTIVE TOXICITY: Not classified. Does not meet criteria for reproductive toxicity.

MUTAGENICITY: Not classified. Does not meet criteria for mutagenicity.

CARCINOGENICITY: Not classified. Does not meet criteria for carcinogenicity.

No evidence of carcinogenicity was observed in multiple animal species following repeated oral or inhalation exposure to synthetic amorphous silica. Similarly, epidemiology studies show no evidence of carcinogenicity in workers who manufacture synthetic amorphous silica.

STOT (Single Exposure): Not classified. Does not meet STOT SE criteria.

STOT (Repeated Exposure): Not classified. Does not meet STOT RE criteria.

Repeated dose toxicity: oral (rat), 13 weeks, LOEL = 1.3 mg/m³ based on mild reversible effects in the lungs. Repeated dose toxicity: inhalation (rat), 90 days, LOEL = 1 mg/m³ based on reversible effects in the lungs and effects in the nasal cavity.

ASPIRATION HAZARD: Not classified. Does not meet aspiration toxicity criteria.

OTHER HEALTH HAZARD INFORMATION: While product does not meet the classification of a respiratory irritant, excessive inhalation exposure can irritate the respiratory tract. Temporary lung overload can cause coughing and shortness of breath.

12. ECOLOGICAL INFORMATION

ACUTE AQUATIC TOXICITY: Not classified. Does not meet acute aquatic toxicity criteria.
Fish (brachydanio rerio) LC50 96h = >10,000 mg/L (OECD 203). No acute toxicity to daphnia with EL and EL_{50} ranging from >1000 – 10,000 mg/L (OECD 202).

CHRONIC AQUATIC TOXICITY: No specific test data available.

PERSISTANCE AND BIODEGRADABILITY: Not applicable to inorganic substances.

MOBILITY IN SOIL: No specific test data available for the mixture.

ADDITIONAL ECOTOXICITY INFORMATION: Prevent release to the environment, sewers and natural waters.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS#</th>
<th>Ecotoxicity Classification Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthetic amorphous pyrogenic silica</td>
<td>112945-52-5</td>
<td>Not classified.</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Evaluation of this product using RCRA criteria shows that it is not a hazardous waste, either by listing or characteristics, in its purchased form. It is the responsibility of the user to determine proper disposal methods.

Recycle (fuel blending) or reclaim may be preferred methods when conducted in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

US DOT
UN NUMBER: Not regulated.
SHIPPING NAME: Not applicable.
TECHNICAL SHIPPING NAME: Not applicable.
HAZARD CLASS: Not applicable.
Packing GROUP: Not applicable.

CANADA TDG
UN NUMBER: Not regulated.
SHIPPING NAME: Not applicable.
TECHNICAL SHIPPING NAME: Not applicable.
HAZARD CLASS: Not applicable.
Packing GROUP: Not applicable.

ICAO/IATA
UN NUMBER: Not regulated.
SHIPPING NAME: Not applicable.
TECHNICAL SHIPPING NAME: Not applicable.
HAZARD CLASS: Not applicable.
Packing GROUP: Not applicable.

IMDG
UN NUMBER: Not regulated.
SHIPPING NAME: Not applicable.
TECHNICAL SHIPPING NAME: Not applicable.
HAZARD CLASS: Not applicable.
Packing GROUP: Not applicable.
EmS Number: Not applicable.
MARINE POLLUTANT: Not applicable.

15. REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>INVENTORY LIST</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>TSCA</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>Europe</td>
<td>EINECS or ELINCs</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>Canada</td>
<td>CEPA (DSL/NDSL)</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>Australia</td>
<td>AICS</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>Japan</td>
<td>ENCS</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>South Korea</td>
<td>KECI</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>China</td>
<td>IECSC</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>Philippines</td>
<td>PICCS</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>New Zealand</td>
<td>NZIoC</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
</tbody>
</table>

US EPA TSCA Requirements: No data available.
Canada WHMIS Confidential Business Information (CBI): No data available.
US EPA SARA TITLE III Reporting and Notification Requirements:
Subject to Section 302 (TPQ) .............................................. Not regulated.
Subject to Section 304 (RQ) ............................................... Not regulated.
Subject to Section 311 or 312 .............................................. Not regulated.
Subject to Section 313 ....................................................... Not regulated.

STATE REGULATORY INFORMATION:
Chemicals listed below may be specifically regulated by individual states. For details on state regulatory requirements you should contact the appropriate state agency.

<table>
<thead>
<tr>
<th>COMPONENT NAME/CAS NUMBER</th>
<th>STATE CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amorphous silica 7631-86-9 or 112945-52-5</td>
<td>PA, NJ, MA</td>
</tr>
</tbody>
</table>

16. OTHER INFORMATION

REASON FOR ISSUE: .............................................................. Update to Sections 3, 8, 11 & 15.
PREPARED BY: ................................................................. Gougeon Brothers, Inc.
SDS CONTACT: ................................................................. safety@gougeon.com
TITLE: ................................................................. Health, Safety & Environmental Manager
APPROVAL DATE: ............................................................. January 15, 2019
SUPERSEDES DATE: .......................................................... August 16, 2016
SDS VERSION: ................................................................. 406-2019a

OTHER HAZARD INFORMATION AND RATING SYSTEMS:

| HEALTH: | 0 |
| FLAMMABILITY: | 1 |
| PHYSICAL HAZARD: | 0 |

Approximate HMIS® and NFPA® 704 CODES:

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