SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ........................................... WEST SYSTEM® 405 Filleting Blend
APPLICABLE PRODUCT CODES: ......................... 405
CHEMICAL FAMILY: ...................................... Powdered mixture.
INTENDED PRODUCT USES: ........................... Thickening agent for liquid epoxy resins.
PRODUCT RESTRICTIONS: .............................. None identified.
SDS VERSION: ............................................... 405-2019a

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

EMERGENCY TELEPHONE NUMBERS (24 HRS):
Transportation
CHEMTREC: 800-424-9300 (U.S.)
703-527-3887 (International)
Non-transportation
Poison Hotline: 800-222-1222

2. HAZARDS IDENTIFICATION

Classification of Substance or Mixture
Combustible dust

Label Elements

Hazard Pictogram(s):
None

Signal Word:
WARNING

Hazard Statements:
May form combustible dust concentrations in the air.

Precautionary Statements:
Prevention
Keep away from all ignition sources including heat, sparks and open flame.
Prevent dust accumulations to minimize explosion hazard.

Other Hazards
None known.

3. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>CAS #</th>
<th>CONCENTRATION (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walnut shell flour</td>
<td>NA</td>
<td>60-80</td>
</tr>
<tr>
<td>Cellulose pulp</td>
<td>65996-61-4</td>
<td>10-30</td>
</tr>
<tr>
<td>Synthetic amorphous pyrogenic silica</td>
<td>112945-52-5</td>
<td>5-10</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: .................................................. SYMPTOMS: 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 precautionary measure if symptoms develop and persist.

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

Last Revised: 15JAN19
5. FIRE FIGHTING MEASURES

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

**FIRE AND EXPLOSION HAZARDS:** ............................................. May form combustible dust concentrations in the air. See Section 9 for additional information. Combustion may result in the release of carbon monoxide, carbon dioxide and formaldehyde.

**SPECIAL FIRE FIGHTING PROCEDURES:** .................................... Wear a self-contained breathing apparatus and complete full-body personal protective equipment. Dust may form an explosive mixture in the air, possibly resulting in a secondary explosion.

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:** ............................ Eliminate ignition sources. Use methods that avoid generating airborne dust. Use a vacuum with high efficiency particulate air (HEPA) filtration is recommended. Do not create 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. Keep away from sources of ignition.

**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. Dust may form explosive mixture with air. Take precautionary measures against static discharges. Metal parts of mixing and processing equipment should be earthed/grounded. Dust deposits should not be allowed to accumulate on surfaces.

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>Walnut shell flour</td>
<td>NA</td>
<td>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>
<tr>
<td>Cellulose pulp</td>
<td>65996-61-4</td>
<td>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>
<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: Reddish-brown.  
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  
VAPOUR PRESSURE: No data available  
SPECIFIC GRAVITY/DENSITY (water = 1): 1.5  
BULK DENSITY: No data available  
VAPOUR DENSITY (air = 1): No data available  
EVAPORATION RATE (Butyl Acetate = 1): No data available  
WATER SOLUBILITY (% BY WT.): Only slightly soluble  
PARTITION COEFFICIENT, n-OCTANOL/WATER (log Pow): No data available  
KINEMATIC VISCOSITY: No data (mm²/s @ 20°C)  
DECOMPOSITION TEMPERATURE: No data available.  
% VOLATILE BY WEIGHT: Not applicable.  
EXPLOSIVE PROPERTIES: Dust may form explosive mixtures in air. Explosive properties of this mixture have not been measured. One or more of the components of this mixture have been identified as having the potential to form an explosive mixture with air when suspended as a dust cloud.  
Kst VALUE: No data available.  
MAXIMUM EXPLOSION PRESSURE (Pmax): No data available  
MINIMUM IGNITION ENERGY (MIE): No data available  
MAXIMUM EXPLOSION CONCENTRATION (MEC): No data available  
DUST EXPLOSION CLASSIFICATION: 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: Strong oxidizing agents.  
CONDITIONS TO AVOID: Avoid settling dust collection and airborne dust formation.  
DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide and possibly formaldehyde at higher temperatures.

11. TOXICOLOGICAL AND HAZARD ENDPOINT INFORMATION

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS#</th>
<th>LD₅₀ Oral</th>
<th>LD₅₀ Dermal</th>
<th>LC₅₀ Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walnut shell flour</td>
<td>NA</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Cellulose pulp</td>
<td>65996-61-4</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Synthetic amorphous pyrogenic silica</td>
<td>112945-52-5</td>
<td>&gt;5000 mg/kg</td>
<td>&gt;2000 mg/kg</td>
<td>No data</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. 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.
Synthetic amorphous silica: 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.

Treated synthetic amorphous silica: No evidence of cancer in rats exposed for 24 months at 100 mg/kg/d (diet). (ECETOC JACC Report 051 – Synthetic Amorphous Silica, September 2006).

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

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

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

OTHER HEALTH HAZARD INFORMATION: None known.

12. ECOLOGICAL INFORMATION

ACUTE AQUATIC TOXICITY: No specific test data available for the mixture. Calculated Estimate: Does not meet acute aquatic toxicity criteria.

CHRONIC AQUATIC TOXICITY: No specific test data available for the mixture. Calculated Estimate: Does not meet chronic aquatic toxicity criteria.

PERSISTANCE AND BIODEGRADABILITY: No specific test data available for the mixture.

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>Walnut shell flour</td>
<td>NA</td>
<td>No data available.</td>
</tr>
<tr>
<td>Cellulose pulp</td>
<td>65996-61-4</td>
<td>Not classified.</td>
</tr>
<tr>
<td>Synthetic amorphous pyrogenic silica</td>
<td>112945-52-5</td>
<td>No data available.</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 (49 CFR) Non-Bulk
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.
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>No data</td>
</tr>
<tr>
<td>South Korea</td>
<td>KECI</td>
<td>No data</td>
</tr>
<tr>
<td>China</td>
<td>IECSC</td>
<td>No data</td>
</tr>
<tr>
<td>Philippines</td>
<td>PICCS</td>
<td>No data</td>
</tr>
<tr>
<td>New Zealand</td>
<td>NZIoC</td>
<td>No data</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 Refer to the health and physical classifications in section 2.
- 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</th>
<th>CAS NUMBER</th>
<th>STATE CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthetic amorphous pyrogenic silica</td>
<td>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.
safety@gougeon.com
TITLE: Health, Safety & Environmental Manager
APPROVAL DATE: January 15, 2019
SUPERSEDES DATE: August 16, 2016
SDS VERSION: 405-2019a

OTHER HAZARD INFORMATION AND RATING SYSTEMS:

HMIS® RATING

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEALTH</td>
<td>0</td>
</tr>
<tr>
<td>FLAMMABILITY</td>
<td>1</td>
</tr>
<tr>
<td>PHYSICAL HAZARD</td>
<td>0</td>
</tr>
</tbody>
</table>

NFPA® 704 CODES

Approximate HMIS and NFPA Risk Ratings Legend:
0 = Low or None; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe

Information in this document is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Gougeon Brothers, Inc. The data on this sheet is related only to the specific material designated herein. Gougeon Brothers, Inc. assumes no legal responsibility for use or reliance upon these data.