

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:..... WEST SYSTEM® 407 Low-Density Filler
APPLICABLE PRODUCT CODES: 407, 407-5, 407-15 and 407-B
CHEMICAL FAMILY:..... Synthetic polymer-natural mineral blend.
INTENDED PRODUCT USES:..... Thickening agent for liquid epoxy resins.
PRODUCT RESTRICTIONS:..... None identified.
SDS VERSION: 407-2019a

2. HAZARDS IDENTIFICATION

Classification of Substance or Mixture

Eye damage/irritation, Category 2B
Combustible dust

Label Elements

Hazard Pictogram(s):
None

Signal Word:
WARNING

Hazard Statements:
H320 Causes eye irritation
May form combustible dust concentrations in the air

Other Hazards

None known.

3. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

INGREDIENT NAME	CAS #	CONCENTRATION (%)
Phenol-formaldehyde polymer microballoon	9003-35-4	45-70
Sodium potassium aluminum silicate	93763-70-3	15-40
Synthetic amorphous pyrogenic silica	112945-52-5	10-30

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.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:..... SUIABLE: Foam, carbon dioxide (CO₂), water, or dry chemical. Fog or mist is recommended if water is used. NON-SUIABLE: 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, formaldehyde and phenol derivatives.

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) / 95°F (35°C)

STORAGE:..... Store in cool, dry place. Do not store directly in the sun or in conditions exceeding 95°F (35°C). Product may undergo spontaneous smoldering if stored or heated in bulk above 35°C under conditions allowing air ingress. Store in sealed containers to prevent moisture absorption or absorption of other volatile materials. Keep away from sources of ignition or heat.

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.

Ingredient Name	CAS#	Exposure Limit Information
Phenol-formaldehyde polymer microballoon	9003-35-4	Dust and PNOS: ACGIH 10mg/m ³ , TWA, Inhalable; 3 mg/m ³ , TWA, Respirable; OSHA PEL 15 mg/m ³ , TWA, total dust; 5 mg/m ³ , TWA, Respirable
Sodium potassium aluminum silicate	93763-70-3	Dust and PNOS: ACGIH 10mg/m ³ , TWA, Inhalable; 3 mg/m ³ , TWA, Respirable; OSHA PEL 15 mg/m ³ , TWA, total dust; 5 mg/m ³ , TWA,

Synthetic amorphous pyrogenic silica	112945-52-5	Respirable. Amorphous silica: OSHA PEL 6 mg/m ³ Dust and PNOS: ACGIH 10mg/m ³ , TWA, Inhalable; 3 mg/m ³ , TWA, Respirable; OSHA PEL 15 mg/m ³ , TWA, total dust; 5 mg/m ³ , TWA, Respirable
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9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM: Powder, solid.
COLOR: Reddish-brown.
ODOR: Slight.
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) No data available
BULK DENSITY No data available
VAPOR DENSITY (air = 1) No data available
EVAPORATION RATE (Butyl Acetate = 1) No data available
WATER SOLUBILITY (% BY WT.) Largely insoluble.
PARTITION COEFFICIENT, n-OCTANOL/WATER (log Pow) No data available
KINEMATIC VISCOSITY: No data available (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 and acids. Contact with hydrofluoric acid will cause the release of a toxic gas.
CONDITIONS TO AVOID: Avoid settling dust collection and airborne dust formation. Avoid direct heat or excessive sunlight.
DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide and possibly formaldehyde and phenol derivatives at higher temperatures.

11. TOXICOLOGICAL AND HAZARD ENDPOINT INFORMATION

Component Name	CAS#	LD ₅₀ Oral	LD ₅₀ Dermal	LC ₅₀ Inhalation
Phenol-formaldehyde polymer microballoon	9003-35-4	No data	No data	No data
Sodium potassium aluminum silicate	93763-70-3	No data	No data	No data
Synthetic amorphous pyrogenic silica	112945-52-5	>5000 mg/kg	>2000 mg/kg	No data

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.

Trace residual formaldehyde may be present in this product at <0.1%. Formaldehyde is classified by IARC as a Group 1 – carcinogenic to humans, by NTP – Known to be a human carcinogen, and by OSHA – as a specifically regulated carcinogen in 29CFR 1910.1048. This product is not classified as a carcinogen because the concentration of formaldehyde does not exceed the cutoff threshold for classification. Exposure potential is expected to be minimal under normal conditions of use due to the physical characteristics of the product.

Trace amounts of crystalline silica (quartz) may be present in this product at <0.1%. Crystalline silica is classified by IARC as a Group 1 – carcinogenic to humans, by NTP – Known to be a human carcinogen. This product is not classified as a carcinogen because the concentration of crystalline silica does not exceed the cutoff threshold for classification. Exposure potential is expected to be minimal under normal conditions of use due to the physical characteristics of the product.

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: 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.

PERSISTENCE 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.

Ingredient	CAS#	Ecotoxicity Classification Information
Phenol-formaldehyde polymer microballoon	9003-35-4	No data available.
Sodium potassium aluminum silicate	93763-70-3	No data available.
Synthetic amorphous pyrogenic silica	112945-52-5	No data available.

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.

Reclaim or reuse 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.
 MARINE POLLUTANT:..... 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

COUNTRY	INVENTORY LIST	STATUS
United States	TSCA	All ingredients are listed or otherwise compliant.
Europe	EINECS or ELINCS	All ingredients are listed or otherwise compliant.
Canada	CEPA (DSL/NDL)	All ingredients are listed or otherwise compliant.
Australia	AICS	All ingredients are listed or otherwise compliant.
Japan	ENCS	All ingredients are listed or otherwise compliant.
South Korea	KECI	All ingredients are listed or otherwise compliant.
China	IECSC	All ingredients are listed or otherwise compliant.
Philippines	PICCS	All ingredients are listed or otherwise compliant.
New Zealand	NZIoC	All ingredients are listed or otherwise compliant.

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.

COMPONENT NAME

/CAS NUMBER

STATE CODE

Amorphous silica		PA, NJ, MA,
7631-86-9 or 112945-52-5		
Crystalline silica		PA, NJ, MA, ¹ CA
14808-60-7	<0.032%	
Formaldehyde		PA, NJ, MA, ¹ CA
50-00-0	<0.1%	

¹. These substances are known to the state of California to cause cancer or reproductive harm, or both.

16. OTHER INFORMATION

REASON FOR ISSUE:..... Update to Sections 3, 8, 11 & 15.
 PREPARED BY:..... Gougeon Brothers, Inc.
 TITLE:..... Health, Safety & Environmental Manager
 APPROVAL DATE:..... January 15, 2019
 SUPERSEDES DATE:..... August 16, 2016
 SDS VERSION:..... 407-2019a

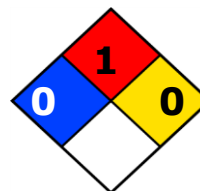
OTHER HAZARD INFORMATION AND RATING SYSTEMS:

WEST SYSTEM® 407 Low-Density Filler

HMIS® RATING

HEALTH:	0
FLAMMABILITY:	1
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	

NFPA® 704 CODES



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

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