

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:..... WEST SYSTEM® 404 High-Density Filler
APPLICABLE PRODUCT CODES: 404, 404-15, 404-45, 404-B
CHEMICAL FAMILY:..... Calcium metasilicate mineral, amorphous silica blend.
INTENDED PRODUCT USES:..... Thickening agent for liquid epoxy resins.
PRODUCT RESTRICTIONS: None identified.
SDS VERSION: 404-2019a

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

None known.

3. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

| INGREDIENT NAME | CAS # | CONCENTRATION (%) |
|---|------------|-------------------|
| Calcium metasilicate mineral | 13983-17-0 | 80-100 |
| Siloxanes and silicones, di-Me, reaction products with silica | 67762-90-7 | 5-20 |
| Calcium carbonate | 1317-65-3 | 0.1-1.5 |
| Magnesium calcium silicate | 14483-19-3 | 0.1-1.5 |
| Aluminum silicate | 68476-25-5 | 0.1-1.5 |

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 mechanical irritation, redness 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..... SYMPTOMS: May cause skin dryness or slight irritation, itching.
RESPONSE: Wash with mild soap and water.

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: **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: The majority composition of this product will not support combustion. Not expected to form a combustible dust concentration in the air.

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: 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. Spilled material may cause slippery conditions when wet.

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.

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 |
|---|------------|--|
| Calcium metasilicate mineral | 13983-17-0 | 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 |
| Siloxanes and silicones, di-Me, reaction products with silica | 67762-90-7 | 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 |
| Calcium carbonate | 1317-65-3 | 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 |
| Magnesium calcium silicate | 14483-19-3 | 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 |
| Aluminum silicate | 68476-25-5 | 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 |

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM: Powder, solid.
COLOR: Off-White.
ODOR: None.
ODOR THRESHOLD: No data available
pH: No data available
MELTING POINT / FREEZING POINT Melting point > 1000°C / Will not freeze.
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) 2.45-2.96
BULK DENSITY No data available
VAPOR 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: Not applicable. The majority components of this product will not support combustion.
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: None known.
CONDITIONS TO AVOID: Avoid excessive airborne dust formation.
DECOMPOSITION PRODUCTS: None known.

11. TOXICOLOGICAL AND HAZARD ENDPOINT INFORMATION

| Component Name | CAS# | LD ₅₀ Oral | LD ₅₀ Dermal | LC ₅₀ Inhalation |
|---|------------|-----------------------|-------------------------|-----------------------------|
| Calcium metasilicate mineral | 13983-17-0 | No data | No data | No data |
| Siloxanes and silicones, di-Me, reaction products with silica | 67762-90-7 | >5000 mg/kg OECD 401 | >2000 mg/kg OECD 402 | No data |
| Calcium carbonate | 1317-65-3 | No data | No data | No data |
| Magnesium calcium silicate | 14483-19-3 | No data | No data | No data |
| Aluminum silicate | 68476-25-5 | No data | No data | 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.

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.

Synthetic amorphous silica: 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:..... Product does not meet the health hazard classification criteria. However, excessive inhalation exposure can irritate the respiratory tract. Temporary lung overload can cause coughing and shortness of breath. Repeated or prolonged exposure to wollastonite can cause lung injury (pneumoconiosis). Risk of injury is dependent upon duration and level of exposure. May cause mechanical irritation of the eye.

12. ECOLOGICAL INFORMATION

ACUTE AQUATIC TOXICITY:..... Not classified. Does not meet acute aquatic toxicity criteria.

CHRONIC AQUATIC TOXICITY:..... Not classified. Does not meet acute aquatic toxicity criteria.

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.

| Ingredient | CAS# | Ecotoxicity Classification Information |
|---|------------|--|
| Calcium metasilicate mineral | 13983-17-0 | No data available. |
| Siloxanes and silicones, di-Me, reaction products with silica | 67762-90-7 | No data available. |
| Calcium carbonate | 1317-65-3 | No data available. |
| Magnesium calcium silicate | 14483-19-3 | No data available. |
| Aluminum silicate | 68476-25-5 | 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.

Recycle 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.

WEST SYSTEM® 404 High-Density Filler

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 | Wollastonite and amorphous silica are listed or otherwise compliant. |
| Europe | EINECS or ELINCS | Wollastonite and amorphous silica are listed or otherwise compliant. |
| Canada | CEPA (DSL/NDSL) | Wollastonite and amorphous silica are listed or otherwise compliant. |
| Australia | AICS | Wollastonite and amorphous silica are listed or otherwise compliant. |
| Japan | ENCS | Wollastonite and amorphous silica are listed or otherwise compliant. |
| South Korea | KECI | Wollastonite and amorphous silica are listed or otherwise compliant. |
| China | IECSC | Wollastonite and amorphous silica are listed or otherwise compliant. |
| Philippines | PICCS | Wollastonite and amorphous silica are listed or otherwise compliant. |
| New Zealand | NZIoC | Wollastonite and amorphous silica 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
 Amorphous silica
 7631-86-9 or 67762-90-7

STATE CODE

PA, NJ, MA

16. OTHER INFORMATION

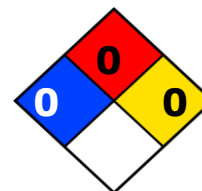
REASON FOR ISSUE: Updates to Sections 3, 8, 11 & 15.
 PREPARED BY: Gougeon Brothers, Inc.
 TITLE: Health, Safety & Environmental Manager
 APPROVAL DATE: January 15, 2019
 SUPERSEDES DATE: August 16, 2016
 SDS VERSION: 404-2019a

OTHER HAZARD INFORMATION AND RATING SYSTEMS:

HMIS® RATING

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

NFPA® 704 CODES



WEST SYSTEM® 404 High-Density Filler

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

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