

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: 404-2020a

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

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

Skin Irritation, Category 2
Eye Irritation, Category 2B
Carcinogenicity, Category 1A
Specific target organ toxicity (repeated exposure), Category 1
Specific target organ toxicity (single exposure), Category 3

Label Elements

Hazard Pictogram(s):



Signal Word:
DANGER

Hazard Statements:

H315 Causes skin irritation
H320 Causes eye irritation
H335 May cause respiratory irritation
H350 May cause cancer
H372 Causes damage to organs (lungs) through prolonged or repeated exposure

Precautionary Statements:

Prevention

P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood
P260 Do not breathe dust
P264 Wash skin thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P271 Use only outdoors or in a well-ventilated area
P280 Wear protective gloves/eye protection/protective clothing/face protection
P284 In case of inadequate ventilation wear respiratory protection

Response

P302 + P352 IF ON SKIN: Wash with plenty of water and soap
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308 + P313 If exposed or concerned: Get medical advice/attention
P332 + P313 If skin irritation or rash occurs: Get medical attention/advice
P337 + P313 If eye irritation persists: Get medical attention/advice
P362 + P364 Take off contaminated clothing and wash it before reuse

Storage

P405 Store locked up

Disposal

P501 Dispose of contents and container according to local, state, national and International regulations

Other Hazards

None known.

3. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

INGREDIENT NAME	CAS #	CONCENTRATION (%)
Calcium metasilicate mineral (wollastonite)	13983-17-0	80-100
Siloxanes and silicones, di-Me, reaction products with silica	67762-90-7	5-10
Silicon Dioxide (quartz, crystalline silica)	14808-60-7	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 and skin 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: May be a temporary irritant to the gastrointestinal system. RESPONSE: Seek medical attention if a significant amount is ingested.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: SUITABLE: The majority composition of this product will not support combustion. Choose an extinguishing agent suitable for the surrounding fire.

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. Do not breathing dust. Wash after handling. Provide appropriate exhaust ventilation at points of operation where dust can be generated. If excessive dust is generated respiratory protection may be necessary. 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 (wollastonite)	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
Silicon Dioxide (quartz, crystalline silica)	14808-60-7	OSHA PEL: Respirable 0.050 mg/m ³ . NIOSH: TWA, Respirable 0.050 mg/m ³ . ACGIH TLV: Respirable 0.025 mg/m ³ . Potential Occupational Carcinogen. See Appendix A. Substance listed in OSHA – Tabel Z-1. For more information see OSHA document 1910.1053.

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 Loose 2.45 (lbs./gal.); Tapped 3.37 (lbs./gal.); Packed 5.29 (lbs./gal.)
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
Silicon Dioxide (quartz, crystalline silica)	14808-60-7	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: Causes eye irritation. Category 2B. May cause mechanical irritation or abrasion.

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: May cause cancer. Category 1A. Product may contain crystalline silica (quartz). Crystalline silica (quartz) is classified by IARC as a Group 1, Carcinogenic to humans, based on human evidence. Crystalline silica (quartz) is classified by NTP as Known to be carcinogenic to humans, based on human evidence. Crystalline silica (quartz) is not classified by OSHA as a carcinogen.

This product may contain respirable crystalline silica at levels <1.5%. Chronic health risks are associated with exposure to respirable particles of 3-4 µm over protracted periods of time. Currently, there is evidence that exposure to crystalline silica (respirable, quartz) may cause cancer. There is also limited understanding of the mechanisms of quartz toxicity, including its mechanisms for lung carcinogenicity. Additional studies are needed to determine whether the cell transforming activity of quartz is related to its carcinogenic potential.

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): Category 3. May cause respiratory irritation.

STOT (Repeated Exposure): Category 1. Causes damage to lungs through prolonged or repeated exposure if inhaled.

Prolonged inhalation of crystalline silica may result in silicosis, a disabling pulmonary fibrosis characterized by fibrotic changes and miliary nodules in the lungs, a dry cough, shortness of breath, emphysema, decreased chest expansion, and increased susceptibility to tuberculosis. In advanced stages, loss of appetite, pleuritic pain, and total incapacity to work. Advanced silicosis may result in death due to cardiac failure or destruction of lung tissue.

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: Excessive inhalation exposure can irritate the respiratory tract and cause temporary lung overload resulting in coughing and shortness of breath.

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.

PERSISTENCE 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
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Calcium metasilicate mineral	13983-17-0	No data available.
Siloxanes and silicones, di-Me, reaction products with silica	67762-90-7	No data available.
Silicon Dioxide (quartz, crystalline silica)	14808-60-7	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.
 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	Components are listed or otherwise compliant.
Europe	EINECS or ELINCS	Components are listed or otherwise compliant.
Canada	CEPA (DSL/NDL)	Components are listed or otherwise compliant.
Australia	AICS	Components are listed or otherwise compliant.
Japan	ENCS	Components are listed or otherwise compliant.
South Korea	KECI	Components are listed or otherwise compliant.
China	IECSC	Components are listed or otherwise compliant.
Philippines	PICCS	Components are listed or otherwise compliant.
New Zealand	NZIoC	Components 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.

WEST SYSTEM® 404 High-Density Filler

COMPONENT NAME

ICAS NUMBER

Amorphous silica
7631-86-9 or 67762-90-7
Quartz, respirable
14808-60-7

STATE CODE

PA, NJ, MA

¹CA, PA, NJ, MA

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

16. OTHER INFORMATION

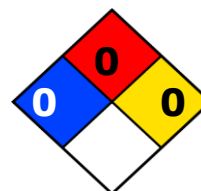
REASON FOR ISSUE:..... Updates to all Sections.
PREPARED BY:..... Gougeon Brothers, Inc.
SDS CONTACT:..... safety@gougeon.com
TITLE:..... Health, Safety & Environmental Manager
APPROVAL DATE:..... February 10, 2020
SUPERSEDES DATE:..... January 15, 2019
SDS VERSION:..... 404-2020a

OTHER HAZARD INFORMATION AND RATING SYSTEMS:

HMIS® RATING

HEALTH:	1
FLAMMABILITY:	0
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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