

**Modified Final Design
Memo to File**

Date: January 29, 2024

From: **Artist and Austin Art in Public Places Staff:** Contracted Artist Dana Perrotti, Program Manager Constance White, and Project Coordinator Ryan Runcie

Copy: **Arts Commission:** Panel Chair Celina Zisman, Vice Chair Heidi Schmalbach, and Panel members Monica Maldonado, Felipe Garza, Gina Houston, Michael Vernusky, Acia Gray, Faiza Kracheni, Amy Mok, Nagavalli Medicharla

Subject: Comal Pocket Park AIPP Project

Background: The AIPP Panel first approved the Final Design proposal for the Comal Pocket Park AIPP Project on September 18, 2023. The artist seeks approval for modifications to the artwork color palette and iconography used in the ceramic tile mural installation.

September 18, 2023 Arts Commission Approval

A motion to approve items 10 – 15 on consent on Commissioner Gray's motion, Commissioner Mok second on a 9-0 vote with Commissioners Maldonado and Csillagi absent.

Concept Narrative:

To reflect the Mexican and Latin American history and heritage of the park, the design inspiration comes from *Milagros*, or folk charms representing prayers, wishes, and healing. These symbols traditionally are made of metal and used as offerings or carried as protection.

The charms range from body parts (eyes, hearts, legs: to represent wishes to heal ailments), to farm animals (hens, bulls, sheep: to represent either abundance on the farm or concepts like mothering/fathering/togetherness), to houses (to wish for blessings on the home).

The theme of *Milagros* will inform the design for the installation at Parque Comal. Custom stoneware tiles will be fabricated with relief designs inspired by traditional *Milagros* symbols and community engagement.

Artwork Narrative:

The tiles will be installed on the North and South cinder block walls that frame the Parque Comal entrance archway. Dimensions of the north retaining wall are 23.25 in. x 183.75 in. The dimensions of the south retaining wall are 23.25 in. x 293.5 in. No changes will be made to the existing arch.

Tiles will be made from heavily grogged mid-fire stoneware from Standard Clay, Sculpture Body #420 (30 percent grog content, fired to cone 6). The absorption rate of the material at cone 6 is 2%, with a maximum of 3 percent, which is required for outdoor installation.

The artist will make custom glazes, testing the “fit” of the glaze to the clay body to ensure that a proper seal is formed (ie, no crazing, or crackling of the glaze surface).

Testing will involve submerging fired test tiles in boiling water and directly transferring the hot tiles to a freezing environment to test the materials at both extremes and simulate more wear and exposure.

Tiles will be set on the cinderblock wall at Parque Comal with thin-set and a grout stain to be complementary to the existing installation. An anti-graffiti sealant will be applied to the completed installation.



Chalmers Court,
Milagros Tile Making, May 2023



Guerrero Senior Center,
Milagros Tile Making, April 2023





Mendez Recreation Center,
Milagros Tile Making
April 2023

Results of Community Engagement

March 2023

- Attended Residents' Meeting at the Chalmer's Court, located one block from Parque Comal. Introduced myself, the project, and heard feedback from the residents.

April 2023

- Tile Making Workshop at Mendez Recreation Center to make art with their after-school program. 20 youth participants created relief tiles from leather-hard clay to create their own Milagros.
- Tile Making Workshop at the Conley-Guerrero Senior Center. 13 participants created their own Milagros relief tiles from leather-hard clay. We discussed themes of the project and deeper meanings of their art. to make art with

May 2023

- Tile Making Workshop at the Calmer's Court to make art with residents. 20 participants carved and glazed personal Milagro tiles.

Participants were most interested to create Milagros that were in the following categories:

- Animals
- Body Parts and the Human Figure
- Natural Elements such as flowers and trees
- Travel

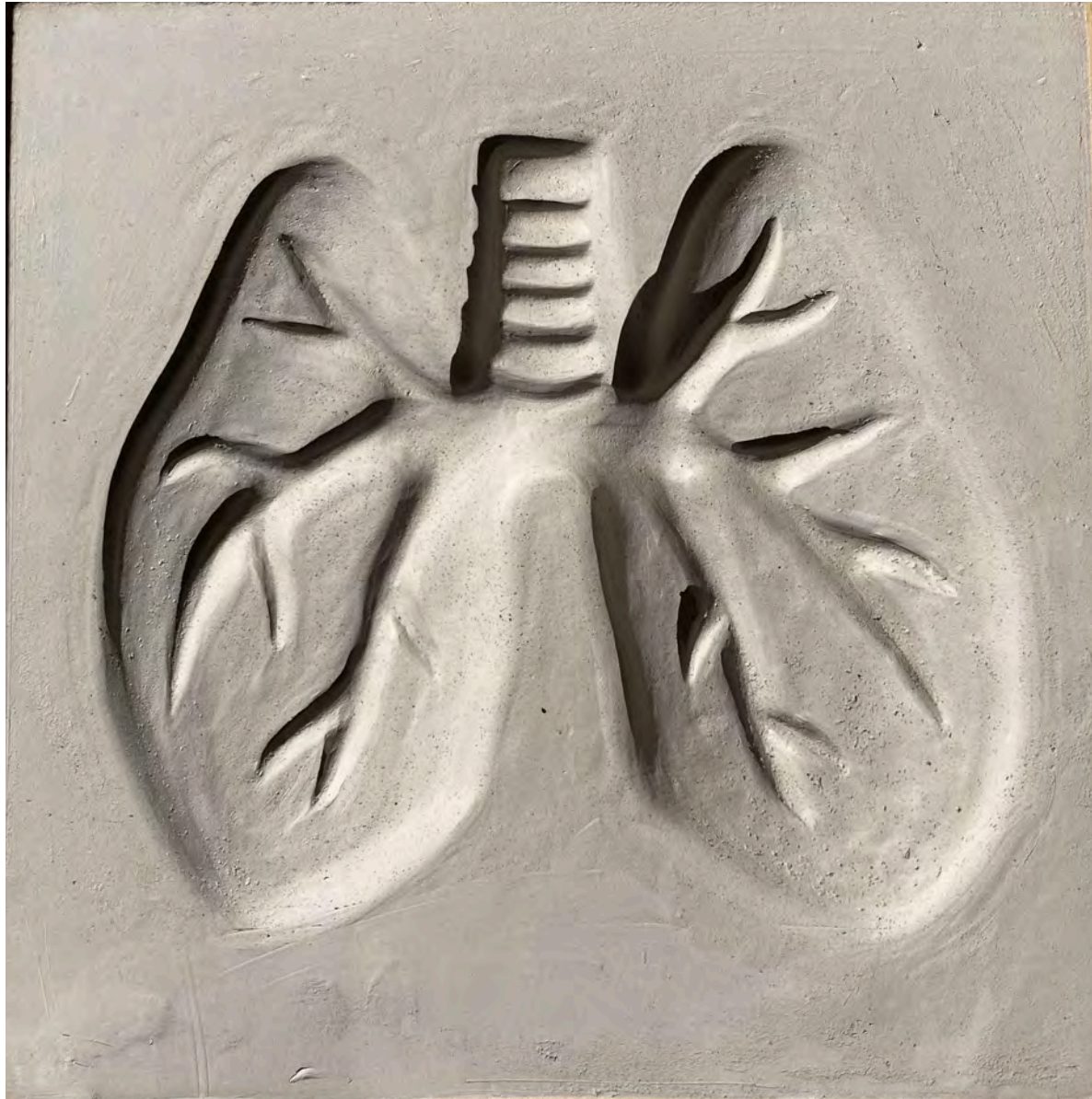
This informed which Milagros I chose to include in the Final Tile Design.



















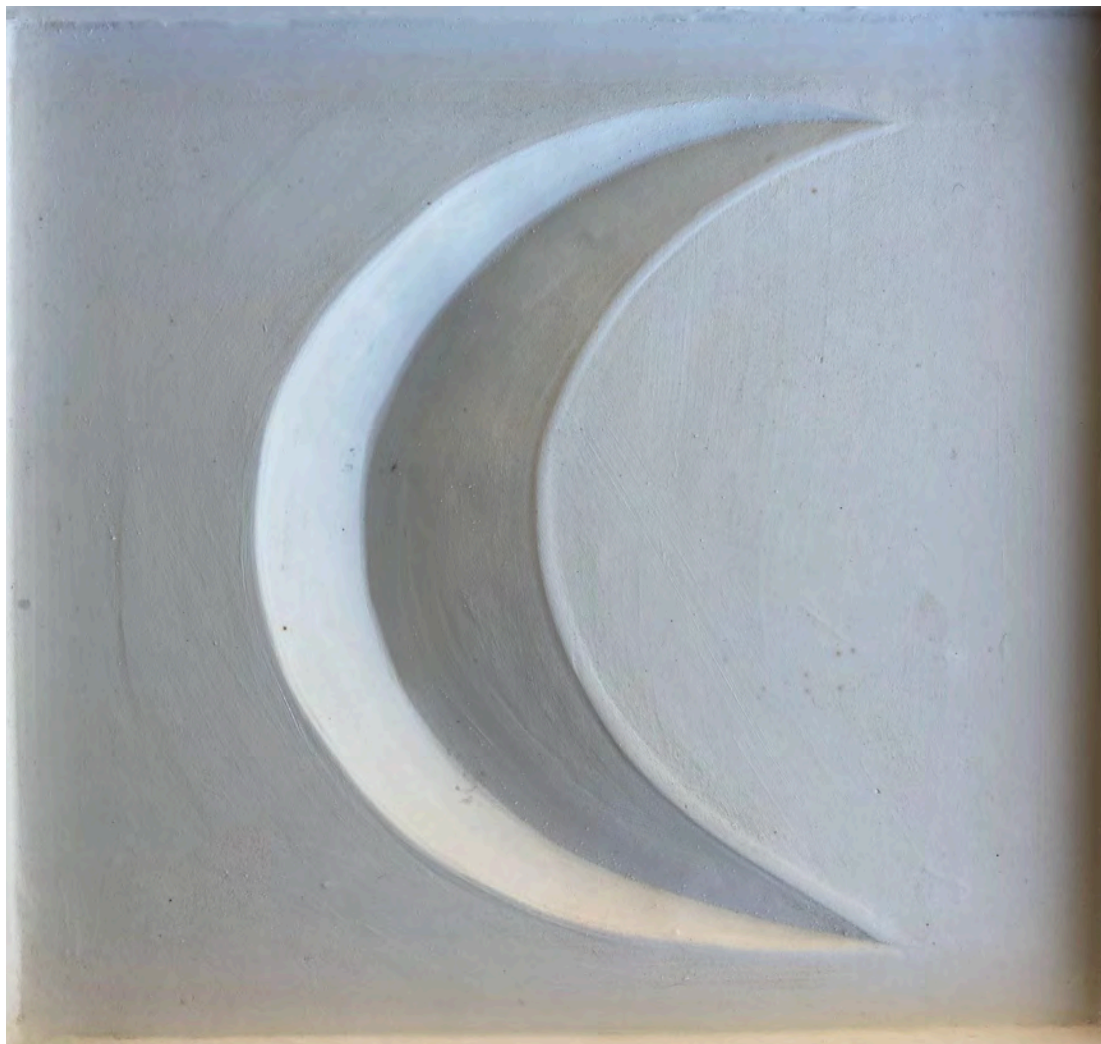




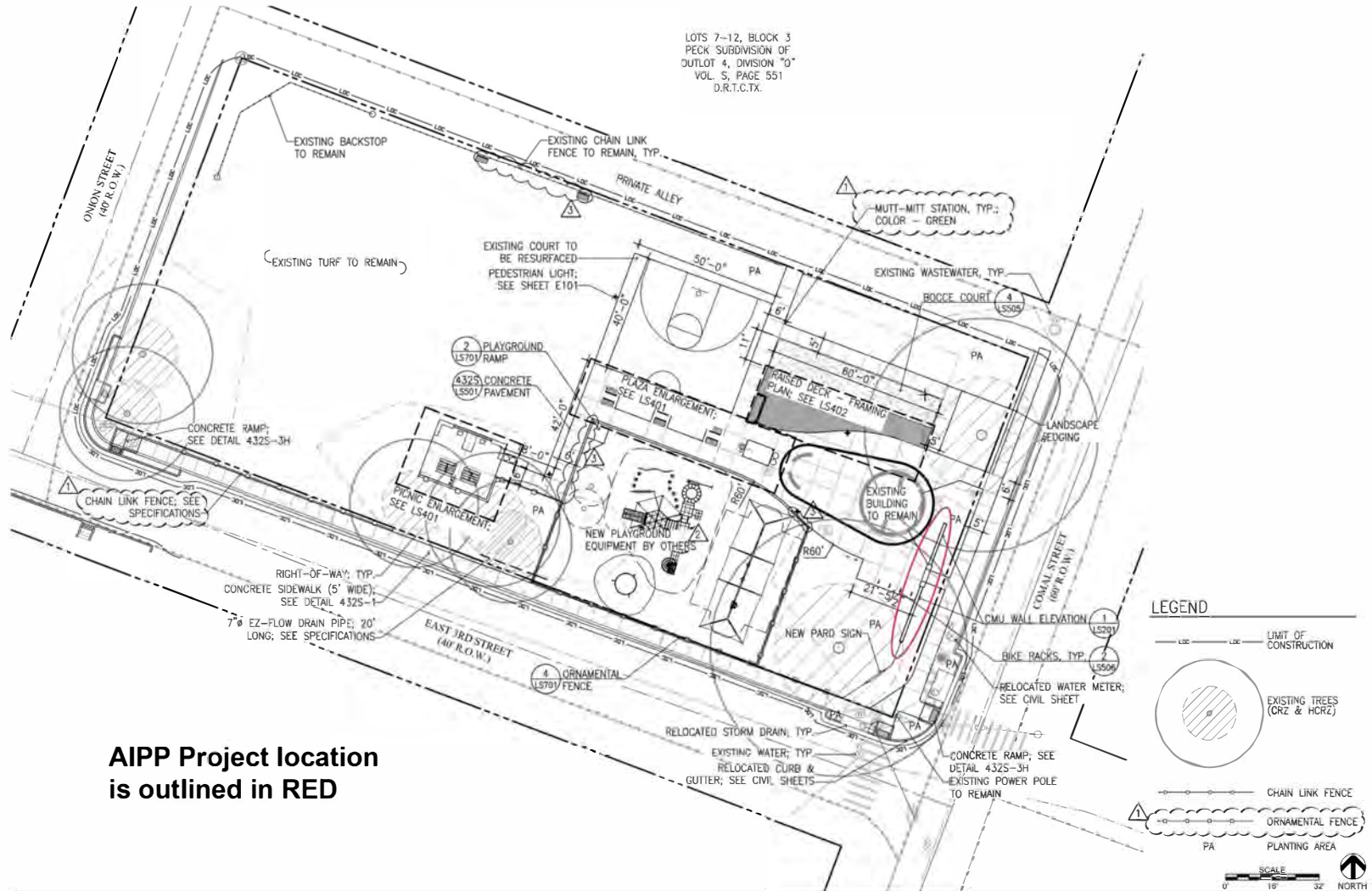




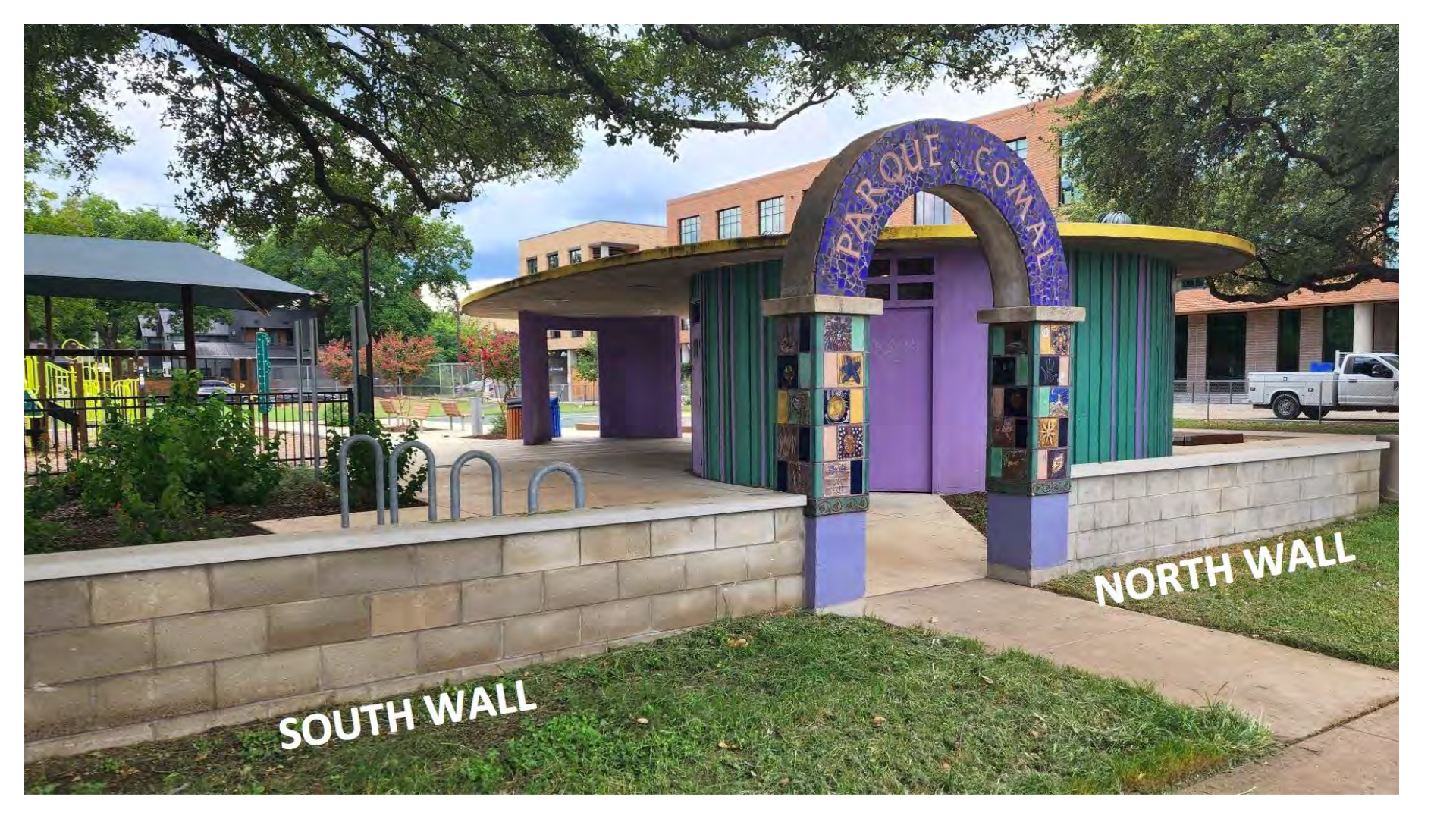




LOTS 7-12, BLOCK 3
PECK SUBDIVISION OF
OUTLOT 4, DIVISION "D"
VOL. 5, PAGE 551
D.R.T.C.TX.



**AIPP Project location
is outlined in RED**

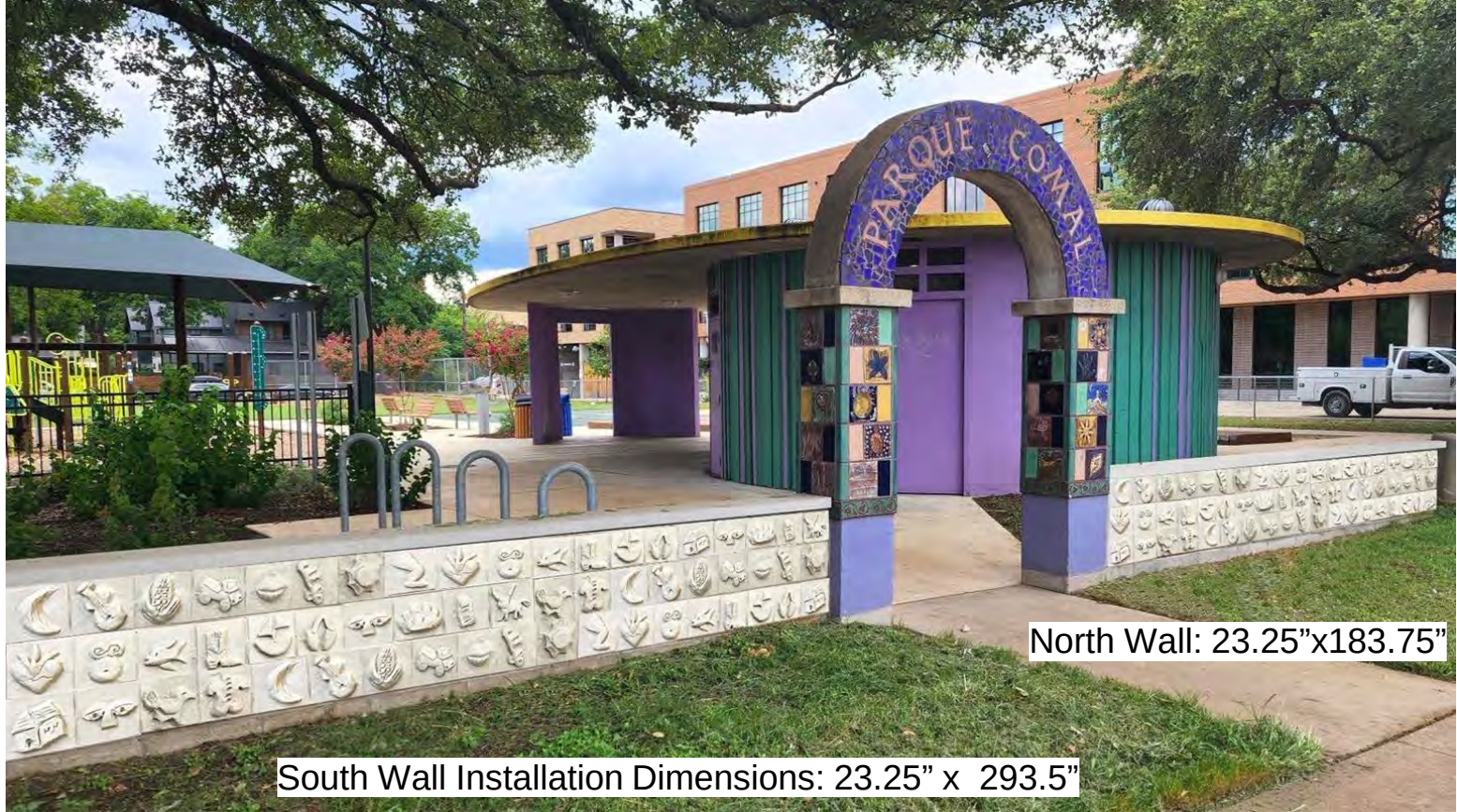


The image shows the entrance to Parque Comal. A large, semi-circular archway is the central feature, with the words "PARQUE COMAL" in gold lettering on its upper curve. The arch is supported by two square columns made of colorful mosaic tiles. To the left of the arch is a circular pavilion with a flat roof and purple pillars. In the foreground, a concrete wall runs across the frame, with a grassy area below it. A paved path leads from the bottom right towards the arch. The background includes a brick building, trees, and a white pickup truck parked on a street.

SOUTH WALL

NORTH WALL

Milagros Relief Tiles, 7.5"x7.5" each + ½" Grout Border (Without Color—to emphasize relief detail)



North Wall: 23.25"x183.75"

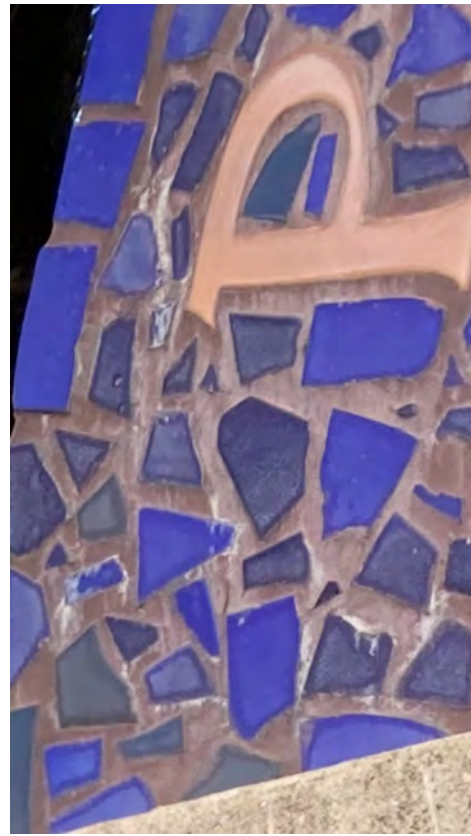
South Wall Installation Dimensions: 23.25" x 293.5"



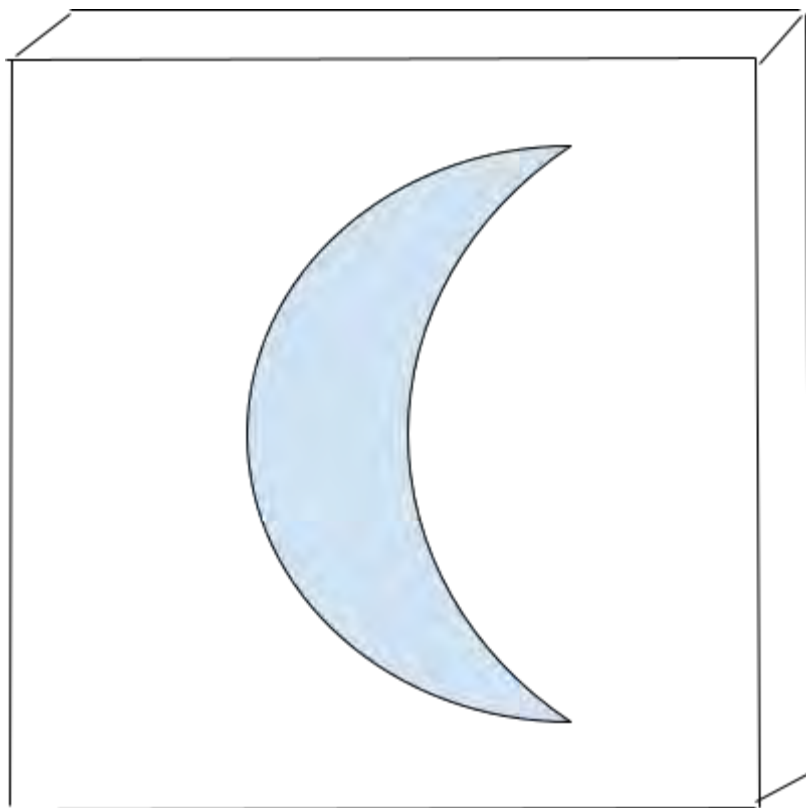
23.5" x 293.5"

23.5" x 187.5"

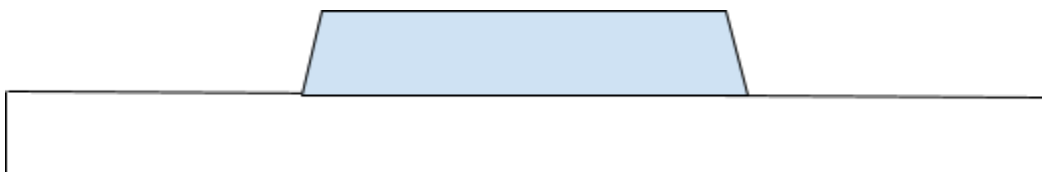
*Modification
for approval



Taking the purples and blues from the top of the arch to create a color scheme that will anchor the archway, connecting top and bottom in a beautiful way!



Tile: 7.5" width x 7.5" length x 0.5" depth



Relief: 0.5" above surface

List of Materials

Ceramic Tiles and Glazes

EPK Kaolin (Edgar Clay)

-Standard Clay, Sculpture body #420 (30 % grog content fired to cone 6)

Custom mixed glazes

- Custer Feldspar
- Spodumene
- Silica
- Talc
- EPK
- Ball Clay OM4
- Frit 3134
- Frit 3195
- Wollastonite

Mason Stains

- Chrome tin pink sphene – Alpine Rose
- Chrome tin pink sphene – Crimson
- Cobalt Silicate Blue Olivine – Mazurine and Pansy Purple
- Cobalt Zinc Aluminate Blue Spinel – Vivid Blue
- Cobalt Tin Alumina Blue Spinel – Delphinium Blue

Installation

Thin Tile mortar Laticrete Multimax Lite

- Strong exterior, large and heavy tile mortar
- 600 PSI shear strength

Spectalock Pro Premium Grout

- Epoxy based grout

Sealant

World's best anti-graffiti sealant



Conservation Review Form

CITY OF AUSTIN AIPP

Exhibit F

Information captured in this form will help expedite the conservation review process, which aims to address the following considerations:

- 1) **Durability of Materials**
- 2) **Appropriateness of Fabrication Methods**
- 3) **Relationship to Site/Context**
- 4) **Installation and Site Preparation**
- 5) **Maintenance Needs**

Artist(s):	Dana Perrotti
Phone:	512-806-8211
Email:	danalperrotti@gmail.com
Title of AIPP Project:	Comal Pocket Park
Title of Artwork:	Milagros
AIPP Project Manager:	Ryan Runcie
Date:	8/25/23

Assuming best maintenance practices, what is the life expectancy of this work?

50 years

List ALL materials and components to be used in the creation of this piece (be specific):

--

Describe any coatings or sealants to be used (be specific):

--

Provide contact information for the fabricator(s) and a description of their services on this project:

Dana Perrotti, (512) 806-8211 Sculpt+ Fabricate Ceramic Tiles
--



Conservation Review Form

CITY OF AUSTIN AIPP

Describe the methods and/or processes used in fabrication, in order of their use in the artwork:

Master relief tiles are carved into clay and a plaster mold is cast. Stoneware clay is pounded into the mold and released. Tiles dry flat for 1 week. Tiles are bisque fired to cone 06. Tiles are cleaned, glazed and fired to cone 6.

Describe the artwork site and installation method:

Describe any required maintenance procedures and/or products:

Attach all that apply:

- | | | |
|---|---|--|
| Y | N | Architect's or Engineer's preliminary drawings |
| Y | N | Material samples |
| Y | N | Images of site or site drawings |
| Y | N | Manufacturer specs or Material Data Safety Sheets (MSDS) for all commercial products |



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www.lagunaclay.com



Ferro Corporation
4150 East 56th Street
Cleveland, Ohio 44105 USA

Emergency telephone number

CHEMTREC: 1-800-424-9300

CHEMTREC (outside U.S.): 1-703-527-3887

Plant Number: 1-216-641-8580

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: 3134-2 Milled Glaze Frit 50 Lb Bag **Date of Preparation:** 10/25/2011
Chemical Family: Frit
Chemical Name: Frit
Synonym: Glassy mixture of particle size reduction after milling.
CAS-No.: 65997-18-4
Formula: TSCA Description: "Frit is a mixture of inorganic chemical substances produced by rapidly quenching a molten, complex combination of materials, confining the chemical substances thus manufactured as non-migratory components of glassy solid flakes or granules."
Product Code: 1024694

2. HAZARDS IDENTIFICATION

Emergency Overview

Warning

May cause respiratory tract, eye and skin irritation. Do not breathe vapours/dust. Contains crystalline silica which causes silicosis and lung cancer.

		HMIS	NFPA 704
Color:	White	2*	2
Physical state:	Powder	0	0
Odor:	Odorless	0	0
		E	

Potential Health Effects

Principle routes of exposure: Inhalation, ingestion, skin and eye contact.

Eye contact: Contact with eyes may cause irritation.

Skin contact: Prolonged skin contact may cause skin irritation.

Inhalation: Dust or fumes from firing irritating to respiratory tract. Fumes may cause lung inflammation.

Ingestion: May irritate digestive tract.

Chronic toxicity: Excessive inhalation of fumes or dust may cause chemical pneumonitis, cyanosis, and pulmonary edema. Respirable crystalline silica has been classified as a Group I (sufficient evidence in humans for carcinogenicity) carcinogenic by IARC and is listed by NTP as a substance which may reasonably be anticipated to be a carcinogen. Long term inhalation causes lung damage (silicosis and cancer).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Weight %
Frit*		100% (May contain - see below)
Quartz silica	14808-60-7	<0.5%

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The specific chemical identities are being withheld as a trade secret (29CFR1910.1200).

* Frit, with CAS # [65997-18-4], is a mixture of inorganic chemical substances produced by rapidly quenching a molten, complex combination of materials, confining the chemical substances thus manufactured as non-migratory components of glassy solid flakes or granules. These components are present as part of the Frit.

4. FIRST AID MEASURES

Eye contact:	Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if irritation develops.
Skin contact:	Wash off immediately with soap and plenty of water. Get medical attention if irritation develops.
Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.
Ingestion:	Drink plenty of water. Do not induce vomiting. Consult a physician if necessary.
Notes to physician:	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash point (°C):	Non combustible
Suitable extinguishing media:	The product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Hazardous decomposition products:	Thermal decomposition can lead to release of irritating gases and vapors. Heavy metal compounds.
Special protective equipment for firefighters:	As in any fire, wear self-contained breathing apparatus (pressure-demand, NIOSH approved or equivalent) and full protective gear.
Unusual hazards:	None known.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Avoid dust formation. Do not breathe vapors/dust. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Ensure adequate ventilation.
Environmental precautions:	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up:	Wear personal protective equipment. Use approved industrial vacuum cleaner for removal. Clean contaminated surface thoroughly. Dispose of promptly.

7. HANDLING AND STORAGE

Handling:
Handle in accordance with good industrial hygiene and safety practice. Use only in area provided with appropriate exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Do not eat, drink, or smoke in areas of use or storage.

Storage:
Keep in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits
Minimize exposure in accordance with good hygiene practice.

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Components	OSHA	ACGIH
Frit	0.5 mg/m ³ TWA Sb 5 mg/m ³ TWA Zr 5 mg/m ³ Ceiling Mn	0.5 mg/m ³ TWA Sb 5 mg/m ³ TWA Zr 0.2 mg/m ³ TWA Mn
Quartz silica	Listed	0.025 mg/m ³ TWA respirable fraction

Engineering measures:	Provide appropriate exhaust ventilation at machinery and at places where dust or fumes can be generated. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Eye protection:	Safety glasses with side-shields.
Skin and body protection:	Lightweight protective clothing. Keep working clothes separately. Remove and wash contaminated clothing before re-use.
Hand protection:	Impervious gloves.
Respiratory protection:	In case of insufficient ventilation wear suitable respiratory equipment. Seek professional advice prior to respirator selection and use. NIOSH-approved respirators should be worn where engineering controls and work practices do not reduce exposure to or below the PEL.
Hygiene measures:	Wash hands before breaks and at the end of workday. Wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	White	Physical state:	Powder
Odor:	Odorless	Molecular weight:	No data available
Boiling point/range (°C):	No data available	pH:	No data available
Melting point/range (°C):	No data available	Specific gravity (Water =1):	No data available
Vapor density:	Non-volatile	Vapor pressure :	No data available
Evaporation Rate (Water = 1)	Non-volatile	Water solubility:	Insoluble
VOC content (%)	0		

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions.
Polymerization	Will not occur.
Hazardous decomposition products:	No decomposition if stored normally. Thermal decomposition can lead to release of irritating gases and vapors.
Materials to avoid:	None known.
Conditions to avoid	None known.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	Information given is based on data on the components and the toxicology of similar products.
Chronic Toxicity:	Contains crystalline silica which causes silicosis and lung cancer.
Carcinogenic Effects:	Respirable crystalline silica has been classified as a Group I (sufficient evidence in humans for carcinogenicity) carcinogenic by IARC and is listed by NTP as a substance which may reasonably be anticipated to be a carcinogen. Crystalline silica is also a known cause of silicosis, a non-cancerous lung disease caused by excessive exposure to crystalline silica.
Target Organ Effects:	Silica: Respiratory system.

Component information, if any, is listed below

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Frit

LD50s and LC50s: Oral LD50 (Rat) = 2000 mg/kg
OSHA - Select Carcinogens: Present
NTP: Known Human Carcinogen
NTPS. Carcinogen: Reasonably Anticipated To Be A Human Carcinogen
IARC - Group 1: Listed
IARC - Group 2A: Listed
IARC - Group 2B: Listed

Quartz silica

LD50s and LC50s: Oral LD50 (Rat) = 500 mg/kg
OSHA - Select Carcinogens: Present
NTP: Known Human Carcinogen
IARC - Group 1: Listed

12. ECOLOGICAL INFORMATION

Aquatic toxicity: No data is available on the product itself. Information given is based on data on the components and the ecotoxicology of similar products.

Persistence and degradability: No information available.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products: Waste must be disposed of in accordance with federal, state and local environmental control regulations. Where possible recycling is preferred to disposal or incineration.

14. TRANSPORT INFORMATION**DOT (U.S.)**

Proper shipping name: Not regulated.

TDG (Canada)

Proper shipping name: Not regulated.

15. REGULATORY INFORMATION**U.S. Regulations:**

TSCA: Not subject to TSCA 12(b) Export Notification

SARA 313: Not subject to the provisions of SARA 313 Title III

State Regulations

This product or its ingredients have been evaluated for New Jersey, Pennsylvania, and California Prop 65 supplier notification requirements. Substances that are subject to notification requirements, if any, are listed below.

Components	NJRTK:
Quartz silica	Listed (NJRTK)

Components	State Regulation - CA Prop65
Quartz silica	Carcinogen

Canadian WHMIS

WHMIS hazard class: D2A Very toxic materials

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International Inventories

TSCA 8(b):	Listed or exempt.
Canadian DSL/NDSL list	All ingredient(s) are listed on the DSL or NDSL
EC-No.	Listed or exempt.
Philippines (PICCS):	Listed.
Japan (ENCS):	Listed or exempt.
Korea (KECL):	Listed.
China (IECS):	Listed.
Australia (AICS):	Listed.
New Zealand (NZIoC):	Listed.

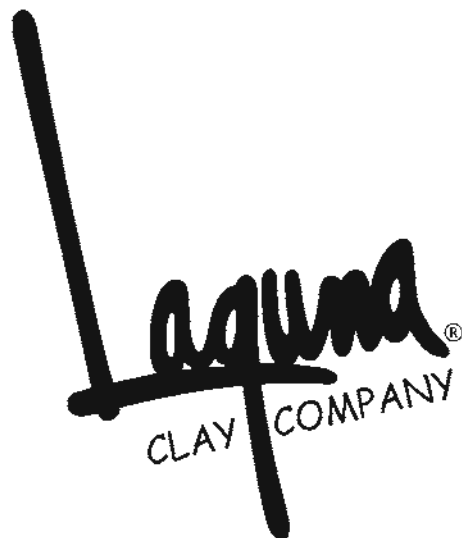
16. OTHER INFORMATION

For Industrial Use Only.

Prepared by: Ferro Technical Center

Disclaimer: The information and recommendations contained in this Material Safety Data Sheet have been compiled from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the MSDS was prepared. No warranty, guaranty or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental regulatory compliance obligations under any applicable federal or state laws.

End of Safety Data Sheet



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SAFETY DATA SHEET

*** Section 1 - Product and Company Identification ***

Chemical Name: Magnesium Silicate Hydrate

Product Use: Mineral Additive

Synonyms: CIMTUFF® 9100 Series Talc & 9100 W Series Talc, CIMTALC® Series Talc, CLEAR-BLOC ® Talc Series, CLEAR-BLOC 100C® Talc Series, FLEXTALC® Talc Series, ELITETALC® Talc 2000 USP, ELITETALC® Talc 3000 USP, ELITETALC® Talc 4000 USP, ELITETALC® Talc 5000 USP, ELITETALC® Body Powder Talc, NANO-FLEX, RP 9400® Series, Jet Mill Feed, SAS 3.

Manufacturer Information (Corporate)

CIMBAR Performance Minerals

Phone: 1-800-852-6868

49-0 Jackson Lake Rd.

Chatsworth, Ga. 30705

*** Section 2 - Hazards Identification ***

Signal Word: Warning

GHS Classification: Eye, skin, respiratory irritant (Category 4)

OSHA\MSHA Hazards: Nuisance Dust

Pictogram: Irritant



Hazard Statements:

Potential Health Effects: Eyes

Dust or powder may irritate eye tissue.

Potential Health Effects: Skin

Dust or powder may irritate the skin.

Potential Health Effects: Ingestion

May cause temporary irritation of the throat, stomach, and gastrointestinal tract.

Emergency Overview: This product is irritating to the eyes, respiratory system and skin.

Potential Health Effects: Inhalation

Long-term excessive exposures may cause Talcosis, a pulmonary fibrosis, which in turn may lead to severe and permanent damage to the lungs. **WARNING:** This product contains crystalline silica. Long-term overexposure to crystalline silica causes silicosis, a form of pulmonary fibrosis. Continued overexposure to silica can lead to cardiopulmonary impairment. Crystalline silica has been reviewed by IARC. IARC found sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica in the form of quartz or cristobalite from occupational sources.

Medical Conditions Aggravated by Exposure: No information available for the product.

Potential Environmental Effects: No significant environmental effects.

HMIS Ratings: Health: 1* Fire: 0 Reactivity: 0 Pers. Prot.: E

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

*** Section 3 - Composition / Information on Ingredients ***

CAS #	Component	Percent (wt/wt)
14807-96-6	Talc	60-100
1318-59-8	Chlorite-group minerals	1-5
14808-60-7	Quartz	0.1-1.0

SAFETY DATA SHEET

Component Related Regulatory Information:

This product may be regulated, have exposure limits or other information identified as the following:
Silica, crystalline (general form).

Component Information:

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

*** Section 4 - First Aid Measures ***

First Aid: Eyes- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

First Aid: Skin- For skin contact, wash immediately with soap and water.

First Aid: Ingestion- Product is not considered toxic in small amounts.

First Aid: Inhalation- Move person to non-contaminated air.

First Aid: Notes to Physician- Provide general supportive measures and treat symptomatically.

*** Section 5 - Fire Fighting Measures ***

General Fire Hazards: This material will not burn.

Hazardous Combustion Products: None identified.

Extinguishing Media: Use methods for the surrounding fire.

Fire Fighting Equipment/Instructions: None necessary.

NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

*** Section 6 - Accidental Release Measures ***

Containment Procedures: Contain the discharged material.

Clean-Up Procedures: Provide adequate ventilation. Cleanup personnel should use personal protective equipment to reduce eye contact, inhalation of dust, and prolonged skin contact. Use vacuum equipment with HEPA filters or wet sweeping/dust suppressant if sweeping is required. Personal safety, handling and exposure recommendations described elsewhere in this data sheet apply to exposure during clean up of spilled material and must be followed.

Evacuation Procedures: None necessary.

Special Procedures: No additional information available.

*** Section 7 - Handling and Storage ***

Handling Procedures: Avoid getting this material into contact with your skin and eyes.

Storage Procedures: Store in a cool, dry, well-ventilated area.

*** Section 8 - Exposure Controls / Personal Protection ***

Exposure Guidelines:

A: General Product Information

Keep formation of airborne dusts to a minimum.

SAFETY DATA SHEET

B: Component Exposure Limits

Talc (14807-96-6)

ACGIH: 2 mg/m3 TWA (respirable fraction, particulate matter containing no asbestos and <1% crystalline silica)
OSHA: 2 mg/m3 TWA (respirable dust, less than 1% crystalline silica)
NIOSH: 2 mg/m3 TWA (respirable dust, containing no asbestos and less than 1% quartz)

Quartz (14808-60-7)

ACGIH: 0.025 mg/m3 TWA (respirable fraction)
OSHA: 0.1 mg/m3 TWA (respirable dust)
NIOSH: 0.05 mg/m3 TWA (respirable dust)

Engineering Controls: Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Personal Protective Equipment (PPE):

Eyes/Face- Wear dust goggles.

Skin- Use impervious gloves.

Respiratory- Use a dust mask for particulate concentrations exceeding the Occupational Exposure Limit.

General- Eye wash fountain and emergency showers are recommended.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance: White Powder
Physical State: Solid
Vapor Pressure: N/A
Boiling Point: N/A
Solubility (H2O): Insoluble

Odor: None
pH: N/A
Vapor Density: N/A
Melting Point: Unknown
Specific Gravity: 2.8

* * * Section 10 - Stability & Reactivity * * *

Chemical Stability: Stable under normal conditions.

Chemical Stability: Conditions to Avoid- None.

Incompatibility: None identified.

Hazardous Decomposition: None identified.

Hazardous Polymerization: Will not occur.

* * * Section 11 - Toxicological Information * * *

Acute and Chronic Toxicity:

A: General Product Information- No information available for the product.

B: Component Analysis - LD50/LC50

Quartz (14808-60-7)

SAFETY DATA SHEET

Oral LD50 Rat: 500 mg/kg

Carcinogenicity:

A: General Product Information- Not listed by ACGIH, IARC, NIOSH, NTP OR OSHA.

B: Component Carcinogenicity

Talc (14807-96-6)

ACGIH: A4 - Not Classifiable as a Human Carcinogen (containing no asbestos fibers); A1 - Confirmed Human Carcinogen (containing asbestos fibers)

IARC: Monograph 93 [in preparation] (inhaled), Supplement 7 [1987], Monograph 42 [1987] (Group 3 (not classifiable))

Quartz (14808-60-7)

ACGIH: A2 - Suspected Human Carcinogen

NIOSH: potential occupational carcinogen

NTP: Known Human Carcinogen (Select Carcinogen)

IARC: Monograph 68 [1997] (listed under Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources) (Group 1 (carcinogenic to humans))

*** Section 12 - Ecological Information ***

Ecotoxicity:

A: General Product Information- This material is not expected to be harmful to aquatic life.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Talc (14807-96-6)

96 Hr LC50 Brachydanio rerio: >100 g/L [semi-static]

Environmental Fate- This material shows no bioaccumulation or food chain concentration toxicity potential.

*** Section 13 - Disposal Considerations ***

US EPA Waste Number & Descriptions:

A: General Product Information- No components are identified as hazardous wastes.

B: Component Waste Numbers- No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions:

If this material becomes a waste it does not meet the criteria of a hazardous waste as defined by USEPA RCRA regulations. More stringent state or local regulations may apply. Combining this material with another may alter this classification.

*** Section 14 - Transport Information ***

US DOT Information: Not regulated.

International Transportation Regulations: This product is not regulated as a hazardous material by the United States (DOT) or Canadian (TDG) transportation regulations.

*** Section 15 - Regulatory Information ***

US Federal Regulations:

A: General Product Information

TSCA - All naturally occurring components of this product are automatically included in the USEPA

TSCA Inventory List per 40 CFR 710.4 (b). All other components are on the USEPA TSCA Inventory List.

SDS-TALC

Revision: 6 (01/01/15)

Approval: DBS

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SAFETY DATA SHEET

FDA - 1. Generally acceptable for use in vanilla powder and vanilla-vanillin powder under food standards 21 CFR 169.179 and 169.182. 2. Generally Recognized As Safe as an anticaking agent in table salt up to 2% (21 CFR 182.2437). 3. Generally approved for use as a pigment or colorant under 21 CFR 175.300, 175.380, 175.390, 176.170, 177.1210, 177.1350, and 177.1460. 4. Generally approved for use as a colorant in polymers (21 CFR 178.3297). Generally approved for use as a colorant only as components of paper and paperboard in contact with aqueous fatty foods (21 CFR 176.170).

B: Component Analysis:

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

Acute Health: Yes Chronic Health: Yes Fire: No Pressure: No Reactive: No

State Regulations:

A: General Product Information

Other state regulations may apply. Check individual state requirements.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	FL	MA	MN	NJ	PA	MI
Talc	14807-96-6	Yes	No	Yes	Yes	Yes	Yes	No
Quartz	14808-60-7	No	No	Yes	Yes	Yes	Yes	No

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

Other Regulations:

A: General Product Information

Canadian WHMIS Classification: Class D, Division 2, Subdivision A

B: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS	AICS	PICCS	ENCS	KECI	IECSC	NZIoC
Country		USA	Canada	Europe	Aust.	PHIL.	Japan	Korea	China	New Zealand
Talc	14807-96-6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Chlorite-group minerals	1318-59-8	No*	No*	Yes	No*	Yes	Yes	Yes	Yes	Yes
Quartz	14808-60-7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

No*- There exists a broad category for naturally occurring chemicals, so these minerals are covered by definition, but not specifically listed.

C: Component Analysis - WHMIS IDL

Component	CAS	Present
Quartz	14808-60-7	Yes

15.1 Chemical Safety Assessment- REACH: Exempted from REACH registration in accordance with Annex V.7

SAFETY DATA SHEET

*** Section 16 - Other Information ***
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Other Information:

Disclaimer: CIMBAR Performance Minerals (CPM) is not responsible for the use of information, product, method, or apparatus herein presented ("Information"), and you must make your own determination as to its suitability and completeness for your own use, for the protection of the environment, and for health and safety purposes. You assume the entire risk of relying on this information. In no event shall CPM be responsible for damages of any nature whatsoever resulting from the use of or reliance upon this information. By providing this information, CPM neither can nor intends to control the method or manner by which you use, handle, store, or transport CPM products. Nothing herein shall be construed as a recommendation or license to use any Information that conflicts with any patent, trademark or copyright. Safety Data Sheets providing safety precautions that should be observed in handling and storing CPM products are available upon request. You should obtain and review the available material safety information before handling any of these products.

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Key/Legend:

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; DOT = Department of Transportation; RCRA = Resource Conservation and Recovery Act

PACER MINERALS LLC
SAFETY DATA SHEET

SECTION I: IDENTIFICATION

Product Name: CUSTER FELDSPAR – 200 Mesh	Producer: PACER MINERALS LLC 25429 US HWY 385 Custer, SD 57730	Phone: 800-568-2492 Fax: 605-673-4459 Email: orders@pacerminerals.com
Other names: Custer Spar		
Recommended Uses: Ceramics, Pottery and Art Ware, Sanitary Ware, Coatings, Decorative Effects, Dental Ware		

SECTION II: HAZARDOUS IDENTIFICATION

*Irritant (skin and eye) – Category 2	*Skin and Respiratory Sensitizer – Category 1
*Specific Target Organ Toxicity – Repeated Exposure Respiratory - Category 2	*Carcinogenicity – Category 2
	
WARNING	
Hazard Statement: May cause damage to lungs through prolonged or repeated inhalation. Suspected of causing cancer through prolonged or repeated inhalation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause skin or eye irritation.	
Precautionary Statement: Avoid breathing dust.	
Free Silica (Crystalline Quartz), Formula: SiO ₂ , OSHA PEL and MSHA Exposure Limit for Respirable Crystalline Silica, Quartz: <u>10mg/m³</u> (A component of this product.) (Respirable) %Silica+2 CAS No. 14808-60-7	

SECTION III: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name: Potassium Alumina Silicates	Common Name and Synonyms: Feldspar	CAS#: 68476-25-5
Feldspar is a naturally occurring inorganic, igneous rock. This product does not contain any levels of toxic chemicals subject to the reporting requirements of Section 313 III SARA of 1986 and 40 CFR Par 372. Test data available.		

SECTION IV: FIRST-AID MEASURES

EMERGENCY/FIRST AID PROCEDURES: INHALATION/INGESTION: Consult physician and/or obtain competent medical assistance. EYE CONTACT: Flush with water, consult physician and/or obtain competent medical assistance. SKIN CONTACT: Wash thoroughly with water.
SIGNS AND SYMPTOMS OF EXPOSURE: Short Term: Shortness of breath, coughing associated with inhalation of dust. Long Term: Steady and prolonged exposure to dust concentrations higher than TLV without approved respirator could cause silicosis, a chronic disease of the lungs marked by acute fibrosis, may cause cancer based on animal data.

SECTION V: FIRE-FIGHTING MEASURES

FIRE EXTINGUISHING MEDIA: N/A	UNUSUAL FIRE & EXPLOSION HAZARDS: N/A	SPECIAL FIRE FIGHTING PROCEDURES: None
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SECTION VI: ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Material is not dangerous if spilled. Wash away with water or vacuum with high efficiency (HEPPA) filter. If uncontaminated recover and reuse. If contaminated collect in suitable containers for disposal. Avoid creating dust. Avoid breathing dust. Wear a NIOSH/MSHA/OSHA approved respirator. Good housekeeping practices recommended.

SECTION VII: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: NIOSH approved dust mask. Safety glasses and gloves are optional but recommended.
STORAGE REQUIREMENTS: Store in dry area. Do not breathe dust. Avoid creating dust in closed areas. Use adequate ventilation as recommended by NIOSH/MSHA/OSHA for crystalline silica.

SECTION VIII: EXPOSURE CONTROLS/PERSONAL PROTECTION

Free Silica (Crystalline Quartz), Formula: SiO ₂ , OSHA PEL and MSHA Exposure Limit for Respirable Crystalline Silica, Quartz: (A component of this product.)	
(Respirable)	10mg/m ³ %Silica+2
EYE PROTECTION: Safety glasses optional but recommended.	PROJECTIVE GLOVES: Gloves are optional but recommended.
RESPIRATORY PROTECTION: NIOSH/MSHA/OSHA approved respirator selection procedures. NIOSH approved dust mask.	
VENTILATION: Local exhaust required for dust removal. Refer to OSHA 1910.24, ASTM, and/or ANSI Standards. Do not exceed OSHA PEL or ACGIH TLV.	

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: White Powder	ODOR: Odorless	ODOR THRESHOLD: N/A	PH: 8.0	Melting Point: 1315.5° C / 2400° F Freezing Point: N/A	BOILING POINT: N/A
FLASH POINT: N/A	EVAPORATION RATE: N/A	FLAMMABILITY: N/A	UPPER/LOWER FLAMMABILITY: N/A	VAPOR PRESSURE: N/A	
VAPOR DENSITY: N/A	RELATIVE DENSITY: N/A	SOLUBILITY: N/A	PARTITION COEFFICIENT: N-OCTANOL/WATER: N/A		
AUTO-IGNITION TEMPERATURE: N/A	DECOMPOSITION TEMPERATURE: N/A		VISCOSITY: N/A		

SECTION X: STABILITY AND REACTIVITY

GENERAL REACTIVITY: N/A	CHEMICAL STABILITY: Feldspar is a stable material under ordinary conditions.	HAZARDOUS REACTIONS: N/A
CONDITIONS TO AVOID: N/A	INCOMPATIBILITY (Materials to Avoid): N/A	HAZARDOUS DECOMPOSITION PRODUCTS: N/A

SECTION XI: TOXICOLOGICAL INFORMATION

INGESTION: Nausea may result from accidental ingestion.	EYE: Inflammation of eye tissue may occur from overexposure.	SKIN CONTACT/ABSORPTION: Inflammation from contact with open cuts may occur.
SIGNS AND SYMPTOMS OF EXPOSURE: Short Term: Shortness of breath, coughing associated with inhalation of dust. Long Term: Steady and prolonged exposure to dust concentrations higher than TLV without approved respirator could cause silicosis, a chronic disease of the lungs marked by acute fibrosis, may cause cancer based on animal data.		
HAZARD BY ROUTES OF EXPOSURE: INHALATION: WARNING: Feldspar is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the Occupation Safety and Health Administration (OSHA). In October, 1996, an IARC working group re-assessing crystalline silica, a component of this product, designated crystalline silica as a Group 1 carcinogenic. The NTP indicates that crystalline silica is reasonably anticipated to be a Group 2 carcinogen. These classifications are based on sufficient evidence of carcinogenicity in certain experimental animals and on selected epidemiological studies of workers exposed to crystalline silica. These studies only rarely, however, include data on smoking, potential confounding exposures, and assurance of the comparability of referent population. Repeated prolonged inhalation of dust may cause delayed lung injury which may result in silicosis or pneumoconiosis.		
WARNING: This product contains respirable sized crystalline silica, a chemical known to the State of California to cause cancer. Compliance with all warning concerning this material is required.		

SECTION XII: ECOLOGICAL INFORMATION

Non-Hazardous

SECTION XIII: DISPOSAL CONSIDERATIONS

WASTE AND CONTAINER DISPOSAL METHODS: Disposal methods for non-hazardous materials should be complied with. May be buried in approved land disposal facility in accordance with Federal, State, and local regulations. Feldspar is not a hazardous waste under RCRA (40 CFR Part 261). Feldspar is not regulated by DOT.

SECTION XIV: TRANSPORT INFORMATION

Not Regulated

SECTION XV: REGULATORY INFORMATION

Not Regulated

SECTION XVI: OTHER INFORMATION

Date Issued: November 23, 2016
The information contained herein is believed to be accurate, but Pacer Minerals LLC makes no warranty with respect thereto and disclaims responsibility thereon. This information applies only to the specific material described herein, and does not relate to use in connection with any other materials or in any process.
The Pacer Minerals LLC makes no warranties, expressed or implied, concerning this product. No warranty of fitness for any particular purpose is made and we assume no responsibility whatever for any use of this product. This product should be used by properly trained personnel in compliance with applicable health and safety laws and regulations.



Edgar Minerals

EPK



Safety Data Sheet

GH5-United States

Section 1: Product and Company Identification

Product Names: EPK Kaolin

Synonym: Edgar Clay

Supplier/Manufacturer: Edgar Minerals, Inc.
651 Keuka Rd.
Edgar, FL 32640
352-481-2421 Phone
352-481-2334 Fax

Emergency Phone Number: 911

Product Use: Ceramics, Sanitary Ware, Agriculture

Section 2: Hazards Identification



Health Hazard (carcinogen)



Irritant (skin, eye, & respiratory tract)

EPK Kaolin is a naturally occurring mineral, which may contain amounts of crystalline silica typically 0.1-1%

• **CARCINOGENICITY:** This product contains crystalline silica. Repeated, prolonged inhalation of dust may cause delayed lung injury which may result in silicosis or pneumoconiosis. The International Agency For Research On Cancer in its publication, "IARC Monographs On the Evaluation Of The Carcinogenic Risk To Humans – Silica, Some Silicates, Coal Dust and Para-aramid Fibrils" - Volume 68, 1997, has concluded that there is sufficient evidence of the carcinogenicity of crystalline silica in humans, and has, therefore, classified crystalline silica in, Group 1, Carcinogenic to Humans. The National Toxicology Program's ("NTP's") Ninth Annual Report on Carcinogens 2000, lists crystalline silica (respirable) as a substance which is known to be a human carcinogen. In humans, a number of studies have found an association between lung cancer and exposure to dust containing respirable crystalline silica. In many of these studies, though not all, lung cancer risks were elevated and could not be explained by confounding factors such as cigarette smoking or arsenic or random inhalation. While the IARC working group concluded there was sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica in the form of quartz or crystobalite, it noted that carcinogenicity in humans was not detected in all circumstances studied.

• **Note:** The state of California requires the following statement:

"Airborne particles of respirable size of crystalline silica are known to the State of California to cause cancer"

Section 3: Composition / Information on Ingredients

<u>Chemical</u>	<u>Formula</u>	<u>CAS & ICSC Numbers</u>	<u>Percentage</u>
Kaolinite	$\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2 \cdot 2\text{H}_2\text{O}$	Cas # 1332-58-7 ICSC # 1144	99.0% – 99.9%
Quartz (Crystalline Silica)	SiO_2	Cas # 14808-60-7 ICSC # 0808	0.1% - 1.0%

Section 4: First-Aid Measures

SKIN CONTACT: No special procedures are required. Some eye, mucous membrane and skin sensitivity may occur with allergic individuals. First aid consists of washing away dust.

INHALATION: In case of discomfort by dust, move to a ventilated area and consult a physician and or obtain competent medical assistance as necessary

EYE CONTACT: Wash eyes with large amount of water or saline solution. If irritation or redness develops, get medical attention.

INGESTION: Give large quantities of water to induce vomiting, keep head lower than hips to prevent aspiration. Get medical attention.



Safety Data Sheet

GHS-United States

Section 5: Fire-Fighting Measures

Kaolin is not flammable.

Section 6: Accidental Release Measures

Kaolin waste is not reactive, flammable or biodegradable. Use conventional means; e.g. sweeping, vacuum, etc. Use caution on wet floor, as it may be slippery.

Section 7: Handling & Storage

No special storage considerations, but keep in a dry, cool location.
Bags weigh 50 lbs. Use proper lifting techniques to avoid physical injury.

Section 8: Exposure Controls / Personal Protection

OSHA PEL ACGIH TLV NIOSH TWA

Crystalline Quartz Crystalline Quartz Crystalline Quartz

RESPIRABLE 10mg/m³ /%SiO₂ +2 RESP. 0.025 mg/m³ (TWA-TLV) RESP. 0.05 mg/ m³ (TWA-TLV)

RESPIRATORY PROTECTION: NIOSH approved dust respirator should be used when level exceeds TLV.

VENTILATION: Normal air circulation, use adequate ventilation for low TLV

LOCAL EXHAUST: Collect excessive dust at point of generation. Refer to OSHA 1910-24, ASTM, and/or ANSI Standard. Do not exceed OSHA PEL or ACGIH TLV.

PROTECTIVE GLOVES & EYE PROTECTION: Impermeable gloves and Eye protective glasses are recommended.

Section 9: Physical & Chemical Properties

MELTING POINT: 1740-1785 °C
SOLUBILITY IN WATER: Negligible
BOILING POINT: N/A

ODOR: Earthy smell when wet

SPECIFIC GRAVITY (WATER=1): 2.65
% VOLATILE BY VOL: Non-Volatile
APPEARANCE: White to light gray lumps; buff-colored powder
VAPOR PRESSURE: N/A

Section 10: Stability & Reactivity

CHEMICAL STABILITY: Stable
MATERIALS TO AVOID: None Expected
HAZARDOUS DECOMPOSITION PRODUCTS: None

CONDITIONS TO AVOID: None

Section 11: Toxicological Information

POTENTIAL HEALTH EFFECTS (ACUTE & CHRONIC): May cause eye and skin irritation. Ingestion may cause gastrointestinal irritation, nausea and diarrhea.
Long term exposure to high amounts of Kaolin without the approved dust mask may cause cancer, based on animal data.

Section 12: Ecological Information (non-mandatory)

Ecotoxicity Effects: No known effect on environment or expected under normal use.

Section 13: Disposal Considerations

WASTE DISPOSAL METHOD: Use normal solid waste, disposal methods to comply with Federal and local laws. Kaolin is not hazardous waste under RCRA (40CFR Part 261)



Safety Data Sheet

GHS-United States

Section 14: Transportation Information

Not classified as dangerous material by DOT. No special precautions are required.

Section 15: Regulatory Information

Canadian WHMIS: Hazardous product, D2A

CANADIAN DOMESTIC SUBSTANCES LIST: As a naturally occurring substance, kaolin is considered to be on the Canadian DSL.

PNCA/CPMA HMIS RATING: Health (1) Flammability (0) Reactivity (0) Personal Protection (E)

SARA: 311 and 312 Hazard Categories

U.S. CALIFORNIA PROPOSITION 65: This product contains materials regulated under **California's Safe Drinking Water and Toxic Enforcement Act of 1986.**

U.S. SARA TITLE III: This product is not subject to SARA Title III (40 CFR Part 372)

TSCA CHEMICAL SUBSTANCES INVENTORY: Kaolin and Quartz is listed.

Hazardous Material Information System (U.S.A.)	National Fire Protection Association (U.S.A.)								
<table><tr><td>Health Hazard</td><td>* 1</td></tr><tr><td>Fire Hazard</td><td>0</td></tr><tr><td>Reactivity</td><td>0</td></tr><tr><td>Personal Protection</td><td>E</td></tr></table> * Chronic Potential	Health Hazard	* 1	Fire Hazard	0	Reactivity	0	Personal Protection	E	NFPA
Health Hazard	* 1								
Fire Hazard	0								
Reactivity	0								
Personal Protection	E								
Protective Clothing (Pictograms)									
Wear NIOSH/MSHA approved dust mask when working in dust conditions. (N-95)									

Section 16: Other Information

For compliance with The Globally Harmonized System of Classification and Labeling of Chemicals (GHS) – prepared October 27, 2014
This data sheet is subject to change without notice.

Information presented herein has been compiled from sources considered to be dependable and is accurate and reliable to the best of our knowledge and belief but is not guaranteed to be so. Nothing herein is to be construed as recommending any practice or any product in violation of any patent or in violation of any law or regulation. It is the user's responsibility to determine for himself the suitability of any material for a specific purpose and to adopt such safety precautions as may be necessary. We make no warranty as to the results to be obtained in using any material and, since conditions of use are not under our control, we must necessarily disclaim all liability with respect to the use of any material supplied by us.

List of Materials

Ceramic Tiles and Glazes

EPK Kaolin (Edgar Clay)

-Standard Clay, Sculpture body #420 (30 % grog content fired to cone 6)

Custom mixed glazes

- Custer Feldspar
- Spodumene
- Silica
- Talc
- EPK
- Ball Clay OM4
- Frit 3134
- Frit 3195
- Wollastonite

Mason Stains

- Chrome tin pink sphene – Alpine Rose
- Chrome tin pink sphene – Crimson
- Cobalt Silicate Blue Olivine – Mazurine and Pansy Purple
- Cobalt Zinc Aluminate Blue Spinel – Vivid Blue
- Cobalt Tin Alumina Blue Spinel – Delphinium Blue

Installation

Thin Tile mortar Laticrete Multimax Lite

- Strong exterior, large and heavy tile mortar
- 600 PSI shear strength

Spectalock Pro Premium Grout

- Epoxy based grout

Sealant

World's best anti-graffiti sealant

Safety Data Sheet

DATE PREPARED 4/28/2015

6001 CHROME TIN PINK SPHENE

HMIS Classification:

Health 2*
Flammability 0
Reactivity 0
Personal Protection See Section 8



MANUFACTURERS OF CERAMIC COLORS

1.1 Product identifier

Product name CHROME TIN PINK SPHENE

Chrome Tin Pink Sphene, an inorganic pigment, is a reaction product of high temperature calcination in which Calcium (II) Oxide, Tin (IV) Oxide, Silicon (IV) Oxide, and Chromium (III) Oxide in varying amounts are homogeneously and ionically interdiffused to form a crystalline matrix of tin sphene.

Its composition may include either or both of the modifiers B2O3 and PbO

Product number	6001	ALPINE ROSE
EC no.	269-073-6	
CAS no.	68187-12-2	
Index no.	C.I. 77301	

1.4 Supplier's details

Name	Mason Color Works Inc.
Address	250 East Second Street East Liverpool, Ohio 43920 USA
Telephone	330 385 4400
Fax	330 385 4488

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with OSHA (29 CFR 1910.1200) Not a hazardous substance or mixture.

2.2 GHS label elements, including precautionary statements Not a hazardous substance or mixture.

2.3 Other hazards which do not result in classification Not a hazardous substance or mixture.



SECTION 3: Composition/information on ingredients

6001 CHROME TIN PINK SPHENE	C.I. Pigment Red 233	100%
EC no.	269-073-6	
CAS no.	68187-12-2	
Index no.	C.I. 77301	
Formula	CaO:SnO:SiO ₂ :Cr ₂ O ₃	

SECTION 4: First-aid measures

•Contact with skin:	Wash with plenty of water and soap.
•Contact with eyes:	Wash immediately with water for at least 10 minutes.
•Swallowing:	Induce vomiting. SEEK A MEDICAL EXAMINATION IMMEDIATELY and present the safety-data sheet. A suspension of activated charcoal in water, or liquid paraffin may be administered.
•Inhalation:	Ventilate the premises. The patient is to be removed immediately from the contaminated premises and made to rest in a well ventilated area. Should the patient feel unwell, OBTAIN MEDICAL ATTENTION

SECTION 5: Fire-fighting measures

•Recommended extinguishers:	Water, CO2, Foam, Chemical powders, according to the materials involved in the fire.
•Extinguishers not to be used:	None in particular.
•Risks arising from combustion:	Avoid inhaling the fumes.
•Protective equipment:	Use protection for the respiratory tract.

SECTION 6: Accidental release measures

•Measures for personal safety:	Use gloves and protective clothing. In the event of particulates aerosols use respiratory protection.
•Environmental measures:	Keep away from drains, surface- and ground-water and soil
•Cleaning methods:	Limit leakages with earth or sand. If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities. Remove the waste materials with a suitable device (for instance a suction pump) and dispose. After the product has been recovered, rinse the area and materials involved with water.

SECTION 7: Handling and storage

•Handling precautions:	Wear suitable gloves, glasses and face protection. Avoid contact and inhalation of the vapours/powders. Do not eat or drink while working.
•Incompatible materials:	None in particular.
•Storage conditions:	Always keep the containers tightly closed.
•Instructions as regards storage premises:	Adequately ventilated premises.

SECTION 8: Exposure controls / personal protection

	ACGIH-TLVs	OSHA PELs	NOISHA RELs
Tin Oxide (as Sn) (Total Dust)	2.0 mg/m ³	2.0 mg/m ³	2.0 mg/m ³
Chromium (III) Compounds (as Cr)	0.5 mg/m ³	0.5 mg/m ³	0.5 mg/m ³
Silica, Crystalline (SiO2)	0.1 mg/m ³	10 mg/m ³	0.05 mg/m ³

•Precautionary measures:	Give adequate ventilation to the premises where the product is stored and/or handled.
•Respiratory protection:	Use suitable respiratory protection.
•Protection for hands:	Not needed for normal use.
•Eye protection:	Not needed for normal use.
•Protection for skin:	No special precaution must be adopted for normal use.

SECTION 9: Physical and chemical properties

Appearance/form	PINK/POWDER
Odor	None
SPECIFIC GRAVITY	3.84
pH	6.6
Melting point/freezing point	>1000c
Initial boiling point and boiling range	NA
Flash point	NA
Evaporation rate	NA
Flammability (solid, gas)	none
Upper/lower flammability limits	NA
Upper/lower explosive limits	NA
Vapor pressure	NA
Vapor density	NA
Relative density	NA
Solubility(ies)	insoluble
Partition coefficient: n-octanol/water	NA
Auto-ignition temperature	NA
Decomposition temperature	NA
Viscosity	NA
Explosive properties	none
Oxidizing properties	none

SECTION 10: Stability and reactivity

Chemical stability	STABLE
Possibility of hazardous reactions	WILL NOT OCCUR
Incompatible materials	NONE
Hazardous decomposition products	N/A

SECTION 11: Toxicological information

ORAL	LD50 (male and female rats) > 2200 mg/kg
INHALATION	LC50 (male and female rats; 4 hours) > 5.4 mg/L
SKIN	UNKNOWN
NON IRRITATING TO THE SKIN	
NON IRRITATING TO THE EYES	

THIS PIGMENT IS NOT LISTED IN THE NATIONAL TOXICOLOGY PROGRAM (NTP) REPORT ON CARCINOGENS.
IT IS NOT LISTED AS A POTENTIAL CARCINOGEN IN THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER(IARC) MONOGRAPHS.
IT IS NOT FOUND TO BE A CARCINOGEN BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION(OSHA)

SECTION 12: Ecological information

ECOTOXICITY	NO DATA
DEGRADABILITY	NO DATA
MOBILITY	NO DATA
BIOACCUMULATIVE	NO DATA

SECTION 13: Disposal considerations

Disposal of the product	Contain spillage and scoop or vacuum. Avoid making dust put in appropriate container for disposal. Waste disposal method in accordance with Federal, State and Local Laws.
Disposal of contaminated packaging	Dispose of as unused product.
Waste treatment	MUST BE PROCESSED THROUGH IN-HOUSE TREATMENT
Sewage disposal	AVOID CITY DRAINS

SECTION 14: Transport information

14.1 UN Number	None
14.2 UN Proper Shipping Name	None
14.3 Transport hazard class(es)	None
14.4 Packing group	None
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	None

SECTION 15: Regulatory information

Attention all Retailers of Mason Stains

ALL retailers of this product are REQUIRED by law to supply their customers with a copy of material safety data sheet with initial purchase.

***SARA 313

This product contains certain oxides and compounds which are subject to reporting requirements of Superfund Amendment and Reauthorization Act (**SARA**) of 1986, Section 313 of the Emergency Planning and Community Right to Know Act and of 40 CFR, Part 372.

The information contained in this SDS must be provided to every employee who is exposed to this product in any way. We recommend the user reads and understands the contents herein before using this material.

PLEASE KEEP ON FILE FOR FUTURE REFERENCE. DO NOT THROW AWAY! SDS'S ARE REQUIRED FOR FIRST SHIPMENT, AND WILL BE SENT AGAIN WHEN REVISED UPON YOUR NEXT ORDER OF PRODUCT OR BY REQUEST.

Disclaimer

SECTION 16: REFERENCE INFORMATION

CPMA CLASSIFICATION AND CHEMICAL DESCRIPTIONS OF THE COMPLEX INORGANIC COLOR PIGMENTS

Fourth Edition - January 2013 Update

<https://www.osha.gov/index.html>

<http://chem.sis.nlm.nih.gov/chemidplus>

13th Report on Carcinogens on October 2, 2014.

<http://monographs.iarc.fr/ENG/Classification/index.php>

Safety Data Sheet

DATE PREPARED 4/28/2015

6003 CHROME TIN PINK SPHENE

HMIS Classification:

Health 2*
Flammability 0
Reactivity 0
Personal Protection See Section 8



MANUFACTURERS OF CERAMIC COLORS

1.1 Product identifier

Product name CHROME TIN PINK SPHENE

Chrome Tin Pink Sphene, an inorganic pigment, is a reaction product of high temperature calcination in which Calcium (II) Oxide, Tin (IV) Oxide, Silicon (IV) Oxide, and Chromium (III) Oxide in varying amounts are homogeneously and ionically interdiffused to form a crystalline matrix of tin sphene.

Its composition may include either or both of the modifiers B2O3 and PbO

Product number	6003	CRIMSON
EC no.	269-073-6	
CAS no.	68187-12-2	
Index no.	C.I. 77301	

1.4 Supplier's details

Name	Mason Color Works Inc.
Address	250 East Second Street East Liverpool, Ohio 43920 USA
Telephone	330 385 4400
Fax	330 385 4488

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with OSHA (29 CFR 1910.1200) Not a hazardous substance or mixture.

2.2 GHS label elements, including precautionary statements Not a hazardous substance or mixture.

2.3 Other hazards which do not result in classification Not a hazardous substance or mixture.



SECTION 3: Composition/information on ingredients

6003 CHROME TIN PINK SPHENE	C.I. Pigment Red 233	100%
EC no.	269-073-6	
CAS no.	68187-12-2	
Index no.	C.I. 77301	
Formula	CaO:SnO:SiO ₂ :Cr ₂ O ₃	

SECTION 4: First-aid measures

•Contact with skin:	Wash with plenty of water and soap.
•Contact with eyes:	Wash immediately with water for at least 10 minutes.
•Swallowing:	Induce vomiting. SEEK A MEDICAL EXAMINATION IMMEDIATELY and present the safety-data sheet. A suspension of activated charcoal in water, or liquid paraffin may be administered.
•Inhalation:	Ventilate the premises. The patient is to be removed immediately from the contaminated premises and made to rest in a well ventilated area. Should the patient feel unwell, OBTAIN MEDICAL ATTENTION

SECTION 5: Fire-fighting measures

•Recommended extinguishers:	Water, CO2, Foam, Chemical powders, according to the materials involved in the fire.
•Extinguishers not to be used:	None in particular.
•Risks arising from combustion:	Avoid inhaling the fumes.
•Protective equipment:	Use protection for the respiratory tract.

SECTION 6: Accidental release measures

•Measures for personal safety:	Use gloves and protective clothing. In the event of particulates aerosols use respiratory protection.
•Environmental measures:	Keep away from drains, surface- and ground-water and soil
•Cleaning methods:	Limit leakages with earth or sand. If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities. Remove the waste materials with a suitable device (for instance a suction pump) and dispose. After the product has been recovered, rinse the area and materials involved with water.

SECTION 7: Handling and storage

•Handling precautions:	Wear suitable gloves, glasses and face protection. Avoid contact and inhalation of the vapours/powders. Do not eat or drink while working.
•Incompatible materials:	None in particular.
•Storage conditions:	Always keep the containers tightly closed.
•Instructions as regards storage premises:	Adequately ventilated premises.

SECTION 8: Exposure controls / personal protection

	ACGIH-TLVs	OSHA PELs	NOISHA RELs
Tin Oxide (as Sn) (Total Dust)	2.0 mg/m ³	2.0 mg/m ³	2.0 mg/m ³
Chromium (III) Compounds (as Cr)	0.5 mg/m ³	0.5 mg/m ³	0.5 mg/m ³
Silica, Crystalline (SiO2)	0.1 mg/m ³	10 mg/m ³	0.05 mg/m ³

•Precautionary measures:	Give adequate ventilation to the premises where the product is stored and/or handled.
•Respiratory protection:	Use suitable respiratory protection.
•Protection for hands:	Not needed for normal use.
•Eye protection:	Not needed for normal use.
•Protection for skin:	No special precaution must be adopted for normal use.

SECTION 9: Physical and chemical properties

Appearance/form	PINK/POWDER
Odor	None
SPECIFIC GRAVITY	3.84
pH	6.6
Melting point/freezing point	>1000c
Initial boiling point and boiling range	NA
Flash point	NA
Evaporation rate	NA
Flammability (solid, gas)	none
Upper/lower flammability limits	NA
Upper/lower explosive limits	NA
Vapor pressure	NA
Vapor density	NA
Relative density	NA
Solubility(ies)	insoluble
Partition coefficient: n-octanol/water	NA
Auto-ignition temperature	NA
Decomposition temperature	NA
Viscosity	NA
Explosive properties	none
Oxidizing properties	none

SECTION 10: Stability and reactivity

Chemical stability	STABLE
Possibility of hazardous reactions	WILL NOT OCCUR
Incompatible materials	NONE
Hazardous decomposition products	N/A

SECTION 11: Toxicological information

ORAL	LD50 (male and female rats) > 2200 mg/kg
INHALATION	LC50 (male and female rats; 4 hours) > 5.4 mg/L
SKIN	UNKNOWN
NON IRRITATING TO THE SKIN	
NON IRRITATING TO THE EYES	

THIS PIGMENT IS NOT LISTED IN THE NATIONAL TOXICOLOGY PROGRAM (NTP) REPORT ON CARCINOGENS.
IT IS NOT LISTED AS A POTENTIAL CARCINOGEN IN THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER(IARC) MONOGRAPHS.
IT IS NOT FOUND TO BE A CARCINOGEN BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION(OSHA)

SECTION 12: Ecological information

ECOTOXICITY	NO DATA
DEGRADABILITY	NO DATA
MOBILITY	NO DATA
BIOACCUMULATIVE	NO DATA

SECTION 13: Disposal considerations

Disposal of the product	Contain spillage and scoop or vacuum. Avoid making dust put in appropriate container for disposal. Waste disposal method in accordance with Federal, State and Local Laws.
Disposal of contaminated packaging	Dispose of as unused product.
Waste treatment	MUST BE PROCESSED THROUGH IN-HOUSE TREATMENT
Sewage disposal	AVOID CITY DRAINS

SECTION 14: Transport information

14.1 UN Number	None
14.2 UN Proper Shipping Name	None
14.3 Transport hazard class(es)	None
14.4 Packing group	None
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	None

SECTION 15: Regulatory information

Attention all Retailers of Mason Stains

ALL retailers of this product are REQUIRED by law to supply their customers with a copy of material safety data sheet with initial purchase.

***SARA 313

This product contains certain oxides and compounds which are subject to reporting requirements of Superfund Amendment and Reauthorization Act (**SARA**) of 1986, Section 313 of the Emergency Planning and Community Right to Know Act and of 40 CFR, Part 372.

The information contained in this SDS must be provided to every employee who is exposed to this product in any way. We recommend the user reads and understands the contents herein before using this material.

PLEASE KEEP ON FILE FOR FUTURE REFERENCE. DO NOT THROW AWAY! SDS'S ARE REQUIRED FOR FIRST SHIPMENT, AND WILL BE SENT AGAIN WHEN REVISED UPON YOUR NEXT ORDER OF PRODUCT OR BY REQUEST.

Disclaimer

SECTION 16: REFERENCE INFORMATION

CPMA CLASSIFICATION AND CHEMICAL DESCRIPTIONS OF THE COMPLEX INORGANIC COLOR PIGMENTS

Fourth Edition - January 2013 Update

<https://www.osha.gov/index.html>

<http://chem.sis.nlm.nih.gov/chemidplus>

13th Report on Carcinogens on October 2, 2014.

<http://monographs.iarc.fr/ENG/Classification/index.php>

Safety Data Sheet

DATE PREPARED 4/28/2015

6006 CHROME TIN PINK SPHENE

HMIS Classification:

Health 2*
Flammability 0
Reactivity 0
Personal Protection See Section 8



MANUFACTURERS OF CERAMIC COLORS

1.1 Product identifier

Product name CHROME TIN PINK SPHENE

Chrome Tin Pink Sphene, an inorganic pigment, is a reaction product of high temperature calcination in which Calcium (II) Oxide, Tin (IV) Oxide, Silicon (IV) Oxide, and Chromium (III) Oxide in varying amounts are homogeneously and ionically interdiffused to form a crystalline matrix of tin sphene.

Its composition may include either or both of the modifiers B2O3 and PbO

Product number	6006	DEEP CRIMSON
EC no.	269-073-6	
CAS no.	68187-12-2	
Index no.	C.I. 77301	

1.4 Supplier's details

Name	Mason Color Works Inc.
Address	250 East Second Street East Liverpool, Ohio 43920 USA
Telephone	330 385 4400
Fax	330 385 4488

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with OSHA (29 CFR 1910.1200) Not a hazardous substance or mixture.

2.2 GHS label elements, including precautionary statements Not a hazardous substance or mixture.

2.3 Other hazards which do not result in classification Not a hazardous substance or mixture.



SECTION 3: Composition/information on ingredients

6006 CHROME TIN PINK SPHENE	C.I. Pigment Red 233	100%
EC no.	269-073-6	
CAS no.	68187-12-2	
Index no.	C.I. 77301	
Formula	CaO:SnO:SiO2:Cr2O3	

SECTION 4: First-aid measures

•Contact with skin:	Wash with plenty of water and soap.
•Contact with eyes:	Wash immediately with water for at least 10 minutes.
•Swallowing:	Induce vomiting. SEEK A MEDICAL EXAMINATION IMMEDIATELY and present the safety-data sheet. A suspension of activated charcoal in water, or liquid paraffin may be administered.
•Inhalation:	Ventilate the premises. The patient is to be removed immediately from the contaminated premises and made to rest in a well ventilated area. Should the patient feel unwell, OBTAIN MEDICAL ATTENTION

SECTION 5: Fire-fighting measures

- Recommended extinguishers:

Water, CO2, Foam, Chemical powders, according to the materials involved in the fire.
- Extinguishers not to be used:

None in particular.
- Risks arising from combustion:

Avoid inhaling the fumes.
- Protective equipment:

Use protection for the respiratory tract.

SECTION 6: Accidental release measures

- Measures for personal safety:

Use gloves and protective clothing. In the event of particulates aerosols use respiratory protection.
- Environmental measures:

Keep away from drains, surface- and ground-water and soil
- Cleaning methods:

Limit leakages with earth or sand. If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities. Remove the waste materials with a suitable device (for instance a suction pump) and dispose. After the product has been recovered, rinse the area and materials involved with water.

SECTION 7: Handling and storage

- Handling precautions:

Wear suitable gloves, glasses and face protection. Avoid contact and inhalation of the vapours/powders. Do not eat or drink while working.
- Incompatible materials:

None in particular.
- Storage conditions:

Always keep the containers tightly closed.
- Instructions as regards storage premises:

Adequately ventilated premises.

SECTION 8: Exposure controls / personal protection

	ACGIH-TLVs	OSHA PELs	NOISHA RELs
Tin Oxide (as Sn) (Total Dust)	2.0 mg/m ³	2.0 mg/m ³	2.0 mg/m ³
Chromium (III) Compounds (as Cr)	0.5 mg/m ³	0.5 mg/m ³	0.5 mg/m ³
Silica, Crystalline (SiO2)	0.1 mg/m ³	10 mg/m ³	0.05 mg/m ³

- Precautionary measures:

Give adequate ventilation to the premises where the product is stored and/or handled.
- Respiratory protection:

Use suitable respiratory protection.
- Protection for hands:

Not needed for normal use.
- Eye protection:

Not needed for normal use.
- Protection for skin:

No special precaution must be adopted for normal use.

SECTION 9: Physical and chemical properties

Appearance/form	PINK/POWDER
Odor	None
SPECIFIC GRAVITY	3.84
pH	6.6
Melting point/freezing point	>1000c
Initial boiling point and boiling range	NA
Flash point	NA
Evaporation rate	NA
Flammability (solid, gas)	none
Upper/lower flammability limits	NA
Upper/lower explosive limits	NA
Vapor pressure	NA
Vapor density	NA
Relative density	NA
Solubility(ies)	insoluble
Partition coefficient: n-octanol/water	NA
Auto-ignition temperature	NA
Decomposition temperature	NA
Viscosity	NA
Explosive properties	none
Oxidizing properties	none

SECTION 10: Stability and reactivity

Chemical stability	STABLE
Possibility of hazardous reactions	WILL NOT OCCUR
Incompatible materials	NONE
Hazardous decomposition products	N/A

SECTION 11: Toxicological information

ORAL	LD50 (male and female rats) > 2200 mg/kg
INHALATION	LC50 (male and female rats; 4 hours) > 5.4 mg/L
SKIN	UNKNOWN
NON IRRITATING TO THE SKIN	
NON IRRITATING TO THE EYES	

THIS PIGMENT IS NOT LISTED IN THE NATIONAL TOXICOLOGY PROGRAM (NTP) REPORT ON CARCINOGENS.
IT IS NOT LISTED AS A POTENTIAL CARCINOGEN IN THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER(IARC) MONOGRAPHS.
IT IS NOT FOUND TO BE A CARCINOGEN BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION(OSHA)

SECTION 12: Ecological information

ECOTOXICITY	NO DATA
DEGRADABILITY	NO DATA
MOBILITY	NO DATA
BIOACCUMULATIVE	NO DATA

SECTION 13: Disposal considerations

Disposal of the product	Contain spillage and scoop or vacuum. Avoid making dust put in appropriate container for disposal. Waste disposal method in accordance with Federal, State and Local Laws.
Disposal of contaminated packaging	Dispose of as unused product.
Waste treatment	MUST BE PROCESSED THROUGH IN-HOUSE TREATMENT
Sewage disposal	AVOID CITY DRAINS

SECTION 14: Transport information

14.1 UN Number	None
14.2 UN Proper Shipping Name	None
14.3 Transport hazard class(es)	None
14.4 Packing group	None
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	None

SECTION 15: Regulatory information

Attention all Retailers of Mason Stains

ALL retailers of this product are REQUIRED by law to supply their customers with a copy of material safety data sheet with initial purchase.

***SARA 313

This product contains certain oxides and compounds which are subject to reporting requirements of Superfund Amendment and Reauthorization Act (**SARA**) of 1986, Section 313 of the Emergency Planning and Community Right to Know Act and of 40 CFR, Part 372.

The information contained in this SDS must be provided to every employee who is exposed to this product in any way. We recommend the user reads and understands the contents herein before using this material.

PLEASE KEEP ON FILE FOR FUTURE REFERENCE. DO NOT THROW AWAY! SDS'S ARE REQUIRED FOR FIRST SHIPMENT, AND WILL BE SENT AGAIN WHEN REVISED UPON YOUR NEXT ORDER OF PRODUCT OR BY REQUEST.

Disclaimer

SECTION 16: REFERENCE INFORMATION

CPMA CLASSIFICATION AND CHEMICAL DESCRIPTIONS OF THE COMPLEX INORGANIC COLOR PIGMENTS

Fourth Edition - January 2013 Update

<https://www.osha.gov/index.html>

<http://chem.sis.nlm.nih.gov/chemidplus>

13th Report on Carcinogens on October 2, 2014.

<http://monographs.iarc.fr/ENG/Classification/index.php>

Safety Data Sheet

DATE PREPARED 4/28/2015

UPDATED 3/21/2016

6306 COBALT ZINC ALUMINATE BLUE SPINEL

HMIS Classification:

Health	2*
Flammability	0
Reactivity	0
Personal Protection	See Section 8



MANUFACTURERS OF CERAMIC COLORS

1.1 Product identifier

Product name COBALT ZINC ALUMINATE BLUE SPINEL

Cobalt Zinc Aluminate Blue Spinel, an inorganic pigment, is a reaction product of high temperature calcination in which Cobalt (II) Oxide, Zinc (II) Oxide, and Aluminum (III) Oxide in varying amounts are homogeneously and ionically interdiffused to form a crystalline matrix of spinel.

Its composition may include any one or a combination of the modifiers Li₂O, MgO, SiO₂, SnO or TiO₂

Product number 6306 VIVID BLUE

EC no. 269-049-5

CAS no. 68186-87-8

Index no. C.I. 77347

1.4 Supplier's details

Name Mason Color Works Inc.
Address 250 East Second Street
East Liverpool, Ohio 43920
USA

Telephone 330 385 4400

Fax 330 385 4488

SECTION 2: Hazard Identification

Signal Word: WARNING

GHS classification in accordance with OSHA (29 CFR 1910.1200)

H303: May be harmful if swallowed

H313: May be harmful in contact with skin

H317: May cause an allergic skin reaction

H333: May be harmful if inhaled

H335: May cause respiratory irritation

Not a hazardous substance

P261: Avoid breathing dust.

P262: Do not get in eyes, on skin.

P264: Wash hands thoroughly after handling.



SECTION 3: Composition/information on ingredients

COBALT ZINC ALUMINATE BLUE SPINEL	C.I. Pigment Blue 72	100%
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EC no. 269-049-5

CAS no. 68186-87-8

Index no. C.I. 77347

Formula (Co,Zn)Al₂O₄

SECTION 4: First-aid measures

- Contact with skin:** Wash with plenty of water and soap.
- Contact with eyes:** Wash immediately with water for at least 10 minutes.
- Swallowing:** Induce vomiting. SEEK A MEDICAL EXAMINATION IMMEDIATELY and present the safety-data sheet.
A suspension of activated charcoal in water, or liquid paraffin may be administered.
- Inhalation:** Ventilate the premises.
The patient is to be removed immediately from the contaminated premises and made to rest in a well ventilated area.
Should the patient feel unwell, OBTAIN MEDICAL ATTENTION

SECTION 5: Fire-fighting measures

- Recommended extinguishers: Water, CO2, Foam, Chemical powders, according to the materials involved in the fire.
- Extinguishers not to be used: None in particular.
- Risks arising from combustion: Avoid inhaling the fumes.
- Protective equipment: Use protection for the respiratory tract.

SECTION 6: Accidental release measures

- Measures for personal safety: Use gloves and protective clothing. In the event of particulates aerosols use respiratory protection.
- Environmental measures: . Keep away from drains, surface- and ground-water and soil
- Cleaning methods: Limit leakages with earth or sand. If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities. Remove the waste materials with a suitable device (for instance a suction pump) and dispose. After the product has been recovered, rinse the area and materials involved with water.

SECTION 7: Handling and storage

- Handling precautions: Wear suitable gloves, glasses and face protection. Avoid contact and inhalation of the vapours/powders. Do not eat or drink while working.
- Incompatible materials: None in particular.
- Storage conditions: Always keep the containers tightly closed.
- Instructions as regards storage premises: Adequately ventilated premises.

SECTION 8: Exposure controls / personal protection

	ACGIH-TLVs	OSHA PELs	NOISHA RELs
Cobalt, Metal, Dust & Fume (as Co)	0.02 mg/m ³	0.5 mg/m ³	N/A
Aluminum (as Al), Metal (Total Dust)	10 mg/mg ³ (total)	15 mg/m ³ (total)	N/A
Zinc oxide(as Zn) (Total Dust)	10 mg/m ³	10 mg/m ³ (total) 5 mg/m ³ (respirable)	5 mg/m ³

- Precautionary measures: Give adequate ventilation to the premises where the product is stored and/or handled.
- Respiratory protection: Use suitable respiratory protection.
- Protection for hands: Not needed for normal use.
- Eye protection: Not needed for normal use.
- Protection for skin: No special precaution must be adopted for normal use.

SECTION 9: Physical and chemical properties

Appearance/form	Blue/Powder
Odor	None
SPECIFIC GRAVITY	4.49
pH	6.6
Melting point/freezing point	<1000 C
Initial boiling point and boiling range	NA
Flash point	NA
Evaporation rate	NA
Flammability (solid, gas)	none
Upper/lower flammability limits	NA
Upper/lower explosive limits	NA
Vapor pressure	NA
Vapor density	NA
Relative density	NA
Solubility(ies)	insoluble
Partition coefficient: n-octanol/water	NA
Auto-ignition temperature	NA
Decomposition temperature	NA
Viscosity	NA
Explosive properties	none
Oxidizing properties	none

SECTION 10: Stability and reactivity

Chemical stability	STABLE
Possibility of hazardous reactions	WILL NOT OCCUR
Incompatible materials	NONE
Hazardous decomposition products	N/A

SECTION 11: Toxicological information

ORAL	LD50 (male rats) > 10000 mg/kg
INHALATION	LC50 (rats; 4 hours) > >5.06 mg/L air
SKIN	N/A
NON IRRITATING TO THE SKIN	
NON IRRITATING TO THE EYES	

THIS PIGMENT IS NOT LISTED IN THE NATIONAL TOXICOLOGY PROGRAM (NTP) REPORT ON CARCINOGENS.
IT IS NOT LISTED AS A POTENTIAL CARCINOGEN IN THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER(IARC) MONOGRAPHS.
IT IS NOT FOUND TO BE A CARCINOGEN BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION(OSHA)

SECTION 12: Ecological information

ECOTOXICITY	NO DATA
DEGRADABILITY	NO DATA
MOBILITY	NO DATA
BIOACCUMULATIVE	NO DATA

SECTION 13: Disposal considerations

Disposal of the product	Contain spillage and scoop or vacuum. Avoid making dust put in appropriate container for disposal. Waste disposal method in accordance with Federal, State and Local Laws.
Disposal of contaminated packaging	Dispose of as unused product.
Waste treatment	MUST BE PROCESSED THROUGH IN-HOUSE TREATMENT
Sewage disposal	AVOID CITY DRAINS

SECTION 14: Transport information

14.1 UN Number	None
14.2 UN Proper Shipping Name	None
14.3 Transport hazard class(es)	None
14.4 Packing group	None
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	None

SECTION 15: Regulatory information

Attention all Retailers of Mason Stains

ALL retailers of this product are REQUIRED by law to supply their customers with a copy of material safety data sheet with initial purchase.

***SARA 313

This product contains certain oxides and compounds which are subject to reporting requirements of Superfund Amendment and Reauthorization Act (**SARA**) of 1986, Section 313 of the Emergency Planning and Community Right to Know Act and of 40 CFR, Part 372.

The information contained in this MSDS must be provided to every employee who is exposed to this product in any way. We recommend the user reads and understands the contents herein before using this material.

PLEASE KEEP ON FILE FOR FUTURE REFERENCE. DO NOT THROW AWAY! MSDS'S ARE REQUIRED FOR FIRST SHIPMENT, AND WILL BE SENT AGAIN WHEN REVISED UPON YOUR NEXT ORDER OF PRODUCT OR BY REQUEST.

Disclaimer

SECTION 16: REFERENCE INFORMATION

CPMA CLASSIFICATION AND CHEMICAL DESCRIPTIONS OF THE COMPLEX INORGANIC COLOR PIGMENTS
Fourth Edition - January 2013 Update

<https://www.osha.gov/index.html>

<http://chem.sis.nlm.nih.gov/chemidplus>

13th Report on Carcinogens on October 2, 2014.

<http://monographs.iarc.fr/ENG/Classification/index.php>

Safety Data Sheet

DATE PREPARED 4/28/2015

UPDATED 3/21/2016

6308 COBALT TIN ALUMINA BLUE SPINEL

HMIS Classification:

Health	2*
Flammability	0
Reactivity	0
Personal Protection	See Section 8



MANUFACTURERS OF CERAMIC COLORS

1.1 Product identifier

Product name COBALT TIN ALUMINA BLUE SPINEL

Cobalt Tin Alumina Blue Spinel, an inorganic pigment, is the reaction product of high temperature calcination in which Aluminum (III) Oxide, Cobalt (II) Oxide, and Tin (IV) Oxide in varying amounts are homogeneously and ionically interdiffused to form a crystalline matrix of spinel.

Its composition may include either one or both of the modifiers SiO₂, or ZnO

Product number 6308 DELPHINIUM BLUE
EC no. 271-771-0
CAS no. 68186-95-8
Index no. C.I. 77998

1.4 Supplier's details

Name Mason Color Works Inc.
Address 250 East Second Street
East Liverpool, Ohio 43920
USA
Telephone 330 385 4400
Fax 330 385 4488

SECTION 2: Hazard Identification

Signal Word: WARNING

GHS classification in accordance with OSHA (29 CFR 1910.1200)

H303: May be harmful if swallowed

H313: May be harmful in contact with skin

H317: May cause an allergic skin reaction

H333: May be harmful if inhaled

H335: May cause respiratory irritation

Not a hazardous substance

P261: Avoid breathing dust.

P262: Do not get in eyes, on skin.

P264: Wash hands thoroughly after handling.



SECTION 3: Composition/information on ingredients

COBALT TIN ALUMINA BLUE SPINEL	C.I. Pigment Blue 81	100%
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EC no. 271-771-0
CAS no. 68186-95-8
Index no. C.I. 77998
Formula CoAl₂O₄/Co₂SnO₄

SECTION 4: First-aid measures

•Contact with skin:

Wash with plenty of water and soap.

•Contact with eyes:

Wash immediately with water for at least 10 minutes.

•Swallowing:

Induce vomiting. SEEK A MEDICAL EXAMINATION IMMEDIATELY and present the safety-data sheet.

A suspension of activated charcoal in water, or liquid paraffin may be administered.

•Inhalation:

Ventilate the premises.

The patient is to be removed immediately from the contaminated premises and made to rest in a well ventilated area.

Should the patient feel unwell, OBTAIN MEDICAL ATTENTION

SECTION 5: Fire-fighting measures

- Recommended extinguishers:

Water, CO2, Foam, Chemical powders, according to the materials involved in the fire.
- Extinguishers not to be used:

None in particular.
- Risks arising from combustion:

Avoid inhaling the fumes.
- Protective equipment:

Use protection for the respiratory tract.

SECTION 6: Accidental release measures

- Measures for personal safety:

Use gloves and protective clothing. In the event of particulates aerosols use respiratory protection.
- Environmental measures: .

Keep away from drains, surface- and ground-water and soil
- Cleaning methods:

Limit leakages with earth or sand. If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities. Remove the waste materials with a suitable device (for instance a suction pump) and dispose. After the product has been recovered, rinse the area and materials involved with water.

SECTION 7: Handling and storage

- Handling precautions:

Wear suitable gloves, glasses and face protection. Avoid contact and inhalation of the vapours/powders. Do not eat or drink while working.
- Incompatible materials:

None in particular.
- Storage conditions:

Always keep the containers tightly closed.
- Instructions as regards storage premises:

Adequately ventilated premises.

SECTION 8: Exposure controls / personal protection

	ACGIH-TLVs	OSHA PELs	NOISHA RELs
Cobalt, Metal, Dust & Fume (as Co)	0.02 mg/m ³	0.5 mg/m ³	N/A
Aluminum (as Al), Metal (Total Dust)	10 mg/mg ³ (total)	15 mg/m ³ (total)	N/A
Tin Oxide (as Sn) (Total Dust)	2.0 mg/m ³	2.0 mg/m ³	2.0 mg/m ³

- Precautionary measures:

Give adequate ventilation to the premises where the product is stored and/or handled.
- Respiratory protection:

Use suitable respiratory protection.
- Protection for hands:

Not needed for normal use.
- Eye protection:

Not needed for normal use.
- Protection for skin:

No special precaution must be adopted for normal use.

SECTION 9: Physical and chemical properties

Appearance/form	Blue/Powder
Odor	None
SPECIFIC GRAVITY	4.26
pH	6.6
Melting point/freezing point	>1000c
Initial boiling point and boiling range	NA
Flash point	NA
Evaporation rate	NA
Flammability (solid, gas)	none
Upper/lower flammability limits	NA
Upper/lower explosive limits	NA
Vapor pressure	NA
Vapor density	NA
Relative density	NA
Solubility(ies)	insoluble
Partition coefficient: n-octanol/water	NA
Auto-ignition temperature	NA
Decomposition temperature	NA
Viscosity	NA
Explosive properties	none
Oxidizing properties	none

SECTION 10: Stability and reactivity

Chemical stability	STABLE
Possibility of hazardous reactions	WILL NOT OCCUR
Incompatible materials	NONE
Hazardous decomposition products	N/A

SECTION 11: Toxicological information

ORAL	LD50 (male rats) > 10000 mg/kg
INHALATION	LC50 (rats; 4 hours) > >5.06 mg/L air
SKIN	N/A
NON IRRITATING TO THE SKIN	
NON IRRITATING TO THE EYES	

THIS PIGMENT IS NOT LISTED IN THE NATIONAL TOXICOLOGY PROGRAM (NTP) REPORT ON CARCINOGENS.
IT IS NOT LISTED AS A POTENTIAL CARCINOGEN IN THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER(IARC) MONOGRAPHS.
IT IS NOT FOUND TO BE A CARCINOGEN BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION(OSHA)

SECTION 12: Ecological information

ECOTOXICITY	NO DATA
DEGRADABILITY	NO DATA
MOBILITY	NO DATA
BIOACCUMULATIVE	NO DATA

SECTION 13: Disposal considerations

Disposal of the product	Contain spillage and scoop or vacuum. Avoid making dust put in appropriate container for disposal. Waste disposal method in accordance with Federal, State and Local Laws.
Disposal of contaminated packaging	Dispose of as unused product.
Waste treatment	MUST BE PROCESSED THROUGH IN-HOUSE TREATMENT
Sewage disposal	AVOID CITY DRAINS

SECTION 14: Transport information

14.1 UN Number	None
14.2 UN Proper Shipping Name	None
14.3 Transport hazard class(es)	None
14.4 Packing group	None
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	None

SECTION 15: Regulatory information

Attention all Retailers of Mason Stains

ALL retailers of this product are REQUIRED by law to supply their customers with a copy of material safety data sheet with initial purchase.

***SARA 313

This product contains certain oxides and compounds which are subject to reporting requirements of Superfund Amendment and Reauthorization Act (**SARA**) of 1986, Section 313 of the Emergency Planning and Community Right to Know Act and of 40 CFR, Part 372.

The information contained in this SDS must be provided to every employee who is exposed to this product in any way. We recommend the user reads and understands the contents herein before using this material.

PLEASE KEEP ON FILE FOR FUTURE REFERENCE. DO NOT THROW AWAY! SDS'S ARE REQUIRED FOR FIRST SHIPMENT, AND WILL BE SENT AGAIN WHEN REVISED UPON YOUR NEXT ORDER OF PRODUCT OR BY REQUEST.

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SECTION 16: REFERENCE INFORMATION

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Fourth Edition - January 2013 Update

<https://www.osha.gov/index.html>

<http://chem.sis.nlm.nih.gov/chemidplus>

13th Report on Carcinogens on October 2, 2014.

<http://monographs.iarc.fr/ENG/Classification/index.php>

Safety Data Sheet

DATE PREPARED 4/28/2015

UPDATED 3/21/2016

6383 COBALT ALUMINATE BLUE SPINEL

HMIS Classification:

Health	2*
Flammability	0
Reactivity	0
Personal Protection	See Section 8



MANUFACTURERS OF CERAMIC COLORS

1.1 Product identifier

Product name COBALT ALUMINATE BLUE SPINEL

Cobalt Aluminate Blue Spinel, an inorganic pigment, is a reaction product of high temperature calcination in which Cobalt (II) Oxide, and Aluminum (III) Oxide in varying amounts are homogeneously and ionically interdiffused to form a crystalline matrix of spinel.

Its composition may include any one or a combination of the modifiers Li2O, MgO, SiO2, TiO2, or ZnO

Product number 6383 COBALT ALUMINATE

EC no. 310-193-6

CAS no. 1345-16-0

Index no. C.I. 77346

1.4 Supplier's details

Name Mason Color Works Inc.
Address 250 East Second Street
East Liverpool, Ohio 43920
USA

Telephone 330 385 4400

Fax 330 385 4488

SECTION 2: Hazard Identification

Signal Word: WARNING

GHS classification in accordance with OSHA (29 CFR 1910.1200)

H303: May be harmful if swallowed

H313: May be harmful in contact with skin

H317: May cause an allergic skin reaction

H333: May be harmful if inhaled

H335: May cause respiratory irritation

Not a hazardous substance

P261: Avoid breathing dust.

P262: Do not get in eyes, on skin.

P264: Wash hands thoroughly after handling.



SECTION 3: Composition/information on ingredients

COBALT ALUMINATE BLUE SPINEL	C.I. Pigment Blue 28	100%
------------------------------	----------------------	------

EC no. 310-193-6

CAS no. 1345-16-0

Index no. C.I. 77346

Formula CoAl2O4

SECTION 4: First-aid measures

•Contact with skin:	Wash with plenty of water and soap.
•Contact with eyes:	Wash immediately with water for at least 10 minutes.
•Swallowing:	Induce vomiting. SEEK A MEDICAL EXAMINATION IMMEDIATELY and present the safety-data sheet. A suspension of activated charcoal in water, or liquid paraffin may be administered.
•Inhalation:	Ventilate the premises. The patient is to be removed immediately from the contaminated premises and made to rest in a well ventilated area. Should the patient feel unwell, OBTAIN MEDICAL ATTENTION

SECTION 5: Fire-fighting measures

•Recommended extinguishers:	Water, CO2, Foam, Chemical powders, according to the materials involved in the fire.
•Extinguishers not to be used:	None in particular.
•Risks arising from combustion:	Avoid inhaling the fumes.
•Protective equipment:	Use protection for the respiratory tract.

SECTION 6: Accidental release measures

•Measures for personal safety:	Use gloves and protective clothing. In the event of particulates aerosols use respiratory protection.
•Environmental measures: .	Keep away from drains, surface- and ground-water and soil
•Cleaning methods:	Limit leakages with earth or sand. If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities. Remove the waste materials with a suitable device (for instance a suction pump) and dispose. After the product has been recovered, rinse the area and materials involved with water.

SECTION 7: Handling and storage

•Handling precautions:	Wear suitable gloves, glasses and face protection. Avoid contact and inhalation of the vapours/powders. Do not eat or drink while working.
•Incompatible materials:	None in particular.
•Storage conditions:	Always keep the containers tightly closed.
•Instructions as regards storage premises:	Adequately ventilated premises.

SECTION 8: Exposure controls / personal protection

	ACGIH-TLVs	OSHA PELs	NOISHA RELs
Cobalt, Metal, Dust & Fume (as Co)	0.02 mg/m ³	0.5 mg/m ³	N/A
Aluminum (as Al), Metal (Total Dust)	10 mg/mg ³ (total)	15 mg/m ³ (total) 5 mg/m ³ (respirable)	N/A

•Precautionary measures:	Give adequate ventilation to the premises where the product is stored and/or handled.
•Respiratory protection:	Use suitable respiratory protection.
•Protection for hands:	Not needed for normal use.
•Eye protection:	Not needed for normal use.
•Protection for skin:	No special precaution must be adopted for normal use.

SECTION 9: Physical and chemical properties

Appearance/form	Blue/Powder
Odor	None
SPECIFIC GRAVITY	4.26
pH	6.6
Melting point/freezing point	<1000 C
Initial boiling point and boiling range	NA
Flash point	NA
Evaporation rate	NA
Flammability (solid, gas)	none
Upper/lower flammability limits	NA
Upper/lower explosive limits	NA
Vapor pressure	NA
Vapor density	NA
Relative density	NA
Solubility(ies)	insoluble
Partition coefficient: n-octanol/water	NA
Auto-ignition temperature	NA
Decomposition temperature	NA
Viscosity	NA
Explosive properties	none
Oxidizing properties	none

SECTION 10: Stability and reactivity

Chemical stability	STABLE
Possibility of hazardous reactions	WILL NOT OCCUR
Incompatible materials	NONE
Hazardous decomposition products	N/A

SECTION 11: Toxicological information

ORAL	LD50 (male rats) > 10000 mg/kg
INHALATION	LC50 (rats; 4 hours) > >5.06 mg/L air
SKIN	N/A
NON IRRITATING TO THE SKIN	
NON IRRITATING TO THE EYES	

THIS PIGMENT IS NOT LISTED IN THE NATIONAL TOXICOLOGY PROGRAM (NTP) REPORT ON CARCINOGENS.
IT IS NOT LISTED AS A POTENTIAL CARCINOGEN IN THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER(IARC) MONOGRAPHS.
IT IS NOT FOUND TO BE A CARCINOGEN BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION(OSHA)

SECTION 12: Ecological information

ECOTOXICITY	NO DATA
DEGRADABILITY	NO DATA
MOBILITY	NO DATA
BIOACCUMULATIVE	NO DATA

SECTION 13: Disposal considerations

Disposal of the product	Contain spillage and scoop or vacuum. Avoid making dust put in appropriate container for disposal. Waste disposal method in accordance with Federal, State and Local Laws.
Disposal of contaminated packaging	Dispose of as unused product.
Waste treatment	MUST BE PROCESSED THROUGH IN-HOUSE TREATMENT
Sewage disposal	AVOID CITY DRAINS

SECTION 14: Transport information

14.1 UN Number	None
14.2 UN Proper Shipping Name	None
14.3 Transport hazard class(es)	None
14.4 Packing group	None
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	None

SECTION 15: Regulatory information

Attention all Retailers of Mason Stains

ALL retailers of this product are REQUIRED by law to supply their customers with a copy of material safety data sheet with initial purchase.

***SARA 313

This product contains certain oxides and compounds which are subject to reporting requirements of Superfund Amendment and Reauthorization Act (**SARA**) of 1986, Section 313 of the Emergency Planning and Community Right to Know Act and of 40 CFR, Part 372.

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13th Report on Carcinogens on October 2, 2014.

<http://monographs.iarc.fr/ENG/Classification/index.php>

Safety Data Sheet

DATE PREPARED: 5/20/2015

SECTION 1: Identification

6385 RED MIXTURE

HMIS Classification:

Health 2*
Flammability 0
Reactivity 0
Personal Protection See Section 8



MANUFACTURERS OF CERAMIC COLORS

Product number 6385 PANSY PURPLE

1.4 Supplier's details

Name Mason Color Works Inc.
Address 250 East Second Street
East Livepool, Ohio 43920
USA
Telephone 330 385 4400
Fax 330 385 4488

SECTION 2: Hazard identification

Classification of the substance or mixture

GHS classification in accordance with OSHA (29 CFR 1910.1204) Not a hazardous substance or mixture.

GHS label elements, including precautionary statements Not a hazardous substance or mixture.

Other hazards which do not result in classification Not a hazardous substance or mixture.



SECTION 3: Composition/information on ingredients

		%	EC no.	CAS no.	Index no.	Formula	
6003	CHROME TIN PINK SPHENE	89	269-073-6	68187-12-2	C.I. 77301	CaO:SnO:SiO ₂ :Cr ₂ O ₃	C.I. Pigment Red 233
6388	COBALT SILICATE BLUE OLIVINE	11	269-093-5	68187-40-6	C.I. 77364	Co ₂ SiO ₄	C. I. Pigment Blue 73

SECTION 4: First-aid measures

- Contact with skin:** Wash with plenty of water and soap.
- Contact with eyes:** Wash immediately with water for at least 10 minutes.
- Swallowing:** Induce vomiting. SEEK A MEDICAL EXAMINATION IMMEDIATELY and present the safety-data sheet.
A suspension of activated charcoal in water, or liquid paraffin may be administered.
- Inhalation:** Ventilate the premises.
The patient is to be removed immediately from the contaminated premises and made to rest in a well ventilated area.
Should the patient feel unwell, OBTAIN MEDICAL ATTENTION

SECTION 5: Fire-fighting measures

- Recommended extinguishers:** Water, CO₂, Foam, Chemical powders, according to the materials involved in the fire.
- Extinguishers not to be used:** None in particular.
- Risks arising from combustion:** Avoid inhaling the fumes.
- Protective equipment:** Use protection for the respiratory tract.

SECTION 6: Accidental release measures

- Measures for personal safety:
- Use gloves and protective clothing. In the event of particulates aerosols use respiratory protection.
- Environmental measures: .
- Keep away from drains, surface- and ground-water and soil
- Cleaning methods:
- Limit leakages with earth or sand. If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities.
- Remove the waste materials with a suitable device (for instance a suction pump) and dispose.
- After the product has been recovered, rinse the area and materials involved with water.

SECTION 7: Handling and storage

- Handling precautions:
- Wear suitable gloves, glasses and face protection. Avoid contact and inhalation of the vapours/powders.
- Do not eat or drink while working.
- Incompatible materials:
- None in particular.
- Storage conditions:
- Always keep the containers tightly closed.
- Instructions as regards storage premises:
- Adequately ventilated premises.

SECTION 8: Exposure controls / personal protection

	ACGIH-TLVs	OSHA PELs	NOISHA RELs
Tin Oxide (as Sn) (Total Dust)	2.0 mg/m ³	2.0 mg/m ³	2.0 mg/m ³
Chromium (III) Compounds (as Cr)	0.5 mg/m ³	0.5 mg/m ³	0.5 mg/m ³
Cobalt, Metal, Dust & Fume (as Co)	0.02 mg/m ³	0.5 mg/m ³	N/A
Silica, Crystalline (SiO2)	0.1 mg/m ³	10 mg/m ³	0.05 mg/m ³

Respiratory protection:

Suitable respiratory protection for higher concentrations or long-term effect: Particle filter EN 143 Type P1, low efficiency, (solid particles of inert substances).

Hand protection:

Chemical resistant protective gloves (EN 374)

e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm) and other

Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:

Safety glasses with side-shields (frame goggles) (EN 166)

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Due to the colouring properties of the product closed work clothes should be used, to avoid stains during manipulation. Hands and/or face should be washed before breaks and at the end of the shift.

SECTION 9: Physical and chemical properties

Appearance/form	RED/POWDER
Odor	None
SPECIFIC GRAVITY	4.96
pH	6
Melting point/freezing point	<1000 C
Initial boiling point and boiling range	NA
Flash point	NA
Evaporation rate	NA
Flammability (solid, gas)	none
Upper/lower flammability limits	NA
Upper/lower explosive limits	NA
Vapor pressure	NA
Vapor density	NA
Relative density	NA
Solubility(ies)	insoluble
Partition coefficient: n-octanol/water	NA
Auto-ignition temperature	NA
Decomposition temperature	NA
Viscosity	NA
Explosive properties	none
Oxidizing properties	none

SECTION 10: Stability and reactivity

Chemical stability	STABLE
Possibility of hazardous reactions	WILL NOT OCCUR
Incompatible materials	NONE
Hazardous decomposition products	N/A

SECTION 11: Toxicological information

ORAL	LD50 (male and female rats) > 2200 mg/kg
INHALATION	LC50 (male and female rats; 4 hours) > 5.4 mg/L
SKIN	UNKNOWN

NON IRRITATING TO THE SKIN
NON IRRITATING TO THE EYES

THIS PIGMENT IS NOT LISTED IN THE NATIONAL TOXICOLOGY PROGRAM (NTP) REPORT ON CARCINOGENS.
IT IS NOT LISTED AS A POTENTIAL CARCINOGEN IN THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER(IARC) MONOGRAPHS.
IT IS NOT FOUND TO BE A CARCINOGEN BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION(OSHA)

SECTION 12: Ecological information

ECOTOXICITY	NO DATA
DEGRADABILITY	NO DATA
MOBILITY	NO DATA
BIOACCUMULATIVE	NO DATA

SECTION 13: Disposal considerations

Disposal of the product	Contain spillage and scoop or vacuum. Avoid making dust put in appropriate container for disposal. Waste disposal method in accordance with Federal, State and Local Laws.
Disposal of contaminated packaging	Dispose of as unused product.
Waste treatment	MUST BE PROCESSED THROUGH IN-HOUSE TREATMENT
Sewage disposal	AVOID CITY DRAINS

SECTION 14: Transport information

14.1 UN Number	None
14.2 UN Proper Shipping Name	None
14.3 Transport hazard class(es)	None
14.4 Packing group	None
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	None

SECTION 15: Regulatory information

Attention all Retailers of Mason Stains

ALL retailers of this product are REQUIRED by law to supply their customers with a copy of material safety data sheet with initial purchase.

***SARA 313

This product contains certain oxides and compounds which are subject to reporting requirements of Superfund Amendment and Reauthorization Act (**SARA**) of 1986, Section 313 of the Emergency Planning and Community Right to Know Act and of 40 CFR, Part 372.

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<http://monographs.iarc.fr/ENG/Classification/index.php>

Safety Data Sheet

DATE PREPARED 4/28/2015

UPDATED 3/21/2016

6388 COBALT SILICATE BLUE OLIVINE

HMIS Classification:

Health

Flammability

Reactivity

Personal Protection

2*

0

0

See Section 8



MANUFACTURERS OF CERAMIC COLORS

1.1 Product identifier

Product name

COBALT SILICATE BLUE OLIVINE

Cobalt Silicate Blue Olivine, an inorganic pigment, is a reaction product of high temperature calcination in which Cobalt (II) Oxide and Silicon (IV) Oxide in varying amounts are homogeneously and ionically interdiffused to form a crystalline matrix of olivine.

Its composition may include any one or a combination of the modifiers Al_2O_3 , B_2O_3 , CaO , PbO , or ZnO

Product number

6388 MAZERINE

EC no.

269-093-5

CAS no.

68187-40-6

Index no.

C.I. 77364

1.4 Supplier's details

Name

Mason Color Works Inc.

Address

250 East Second Street
East Liverpool, Ohio 43920
USA

Telephone

330 385 4400

Fax

330 385 4488

SECTION 2: Hazard Identification

Signal Word: WARNING

GHS classification in accordance with OSHA (29 CFR 1910.1200)

H303: May be harmful if swallowed

H313: May be harmful in contact with skin

H317: May cause an allergic skin reaction

H333: May be harmful if inhaled

H335: May cause respiratory irritation

Not a hazardous substance

P261: Avoid breathing dust.

P262: Do not get in eyes, on skin.

P264: Wash hands thoroughly after handling.



SECTION 3: Composition/information on ingredients

COBALT SILICATE BLUE OLIVINE

C. I. Pigment Blue 73

100%

EC no.

269-093-5

CAS no.

68187-40-6

Index no.

C.I. 77364

Formula

Co_2SiO_4

SECTION 4: First-aid measures

•Contact with skin:

Wash with plenty of water and soap.

•Contact with eyes:

Wash immediately with water for at least 10 minutes.

•Swallowing:

Induce vomiting. SEEK A MEDICAL EXAMINATION IMMEDIATELY and present the safety-data sheet.

A suspension of activated charcoal in water, or liquid paraffin may be administered.

Ventilate the premises.

The patient is to be removed immediately from the contaminated premises and made to rest in a well ventilated area.

Should the patient feel unwell, OBTAIN MEDICAL ATTENTION

SECTION 5: Fire-fighting measures

•Recommended extinguishers:	Water, CO2, Foam, Chemical powders, according to the materials involved in the fire.
•Extinguishers not to be used:	None in particular.
•Risks arising from combustion:	Avoid inhaling the fumes.
•Protective equipment:	Use protection for the respiratory tract.

SECTION 6: Accidental release measures

•Measures for personal safety:	Use gloves and protective clothing. In the event of particulates aerosols use respiratory protection.
•Environmental measures: .	Keep away from drains, surface- and ground-water and soil
•Cleaning methods:	Limit leakages with earth or sand. If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities. Remove the waste materials with a suitable device (for instance a suction pump) and dispose. After the product has been recovered, rinse the area and materials involved with water.

SECTION 7: Handling and storage

•Handling precautions:	Wear suitable gloves, glasses and face protection. Avoid contact and inhalation of the vapours/powders. Do not eat or drink while working.
•Incompatible materials:	None in particular.
•Storage conditions:	Always keep the containers tightly closed.
•Instructions as regards storage premises:	Adequately ventilated premises.

SECTION 8: Exposure controls / personal protection

	ACGIH-TLVs	OSHA PELs	NOISHA RELs
Cobalt, Metal, Dust & Fume (as Co)	0.02 mg/m³	0.5 mg/m³	N/A
Silica, Crystalline (SiO2)	0.1 mg/m³	10 mg/m³	0.05 mg/m³

•Precautionary measures:	Give adequate ventilation to the premises where the product is stored and/or handled.
•Respiratory protection:	Use suitable respiratory protection.
•Protection for hands:	Not needed for normal use.
•Eye protection:	Not needed for normal use.
•Protection for skin:	No special precaution must be adopted for normal use.

SECTION 9: Physical and chemical properties

Appearance/form	PURPLE/ powder
Odor	None
SPECIFIC GRAVITY	3.74
pH	7.2
Melting point/freezing point	>1000c
Initial boiling point and boiling range	NA
Flash point	NA
Evaporation rate	NA
Flammability (solid, gas)	none
Upper/lower flammability limits	NA
Upper/lower explosive limits	NA
Vapor pressure	NA
Vapor density	NA
Relative density	NA
Solubility(ies)	insoluble
Partition coefficient: n-octanol/water	NA
Auto-ignition temperature	NA
Decomposition temperature	NA
Viscosity	NA
Explosive properties	none
Oxidizing properties	none

SECTION 10: Stability and reactivity

Chemical stability	STABLE
Possibility of hazardous reactions	WILL NOT OCCUR
Incompatible materials	NONE
Hazardous decomposition products	N/A

SECTION 11: Toxicological information

ORAL	LD50 (male and female rats) = 1630 mg/kg (CL: 970 mg/kg - 3790 mg/kg)
INHALATION	LC50 (male and female rats; 4 hours) > 5.3 mg/L
SKIN	N/A
NON IRRITATING TO THE SKIN	
NON IRRITATING TO THE EYES	

THIS PIGMENT IS NOT LISTED IN THE NATIONAL TOXICOLOGY PROGRAM (NTP) REPORT ON CARCINOGENS.
IT IS NOT LISTED AS A POTENTIAL CARCINOGEN IN THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER(IARC) MONOGRAPHS.
IT IS NOT FOUND TO BE A CARCINOGEN BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION(OSHA)

SECTION 12: Ecological information

ECOTOXICITY	NO DATA
DEGRADABILITY	NO DATA
MOBILITY	NO DATA
BIOACCUMULATIVE	NO DATA

SECTION 13: Disposal considerations

Disposal of the product	Contain spillage and scoop or vacuum. Avoid making dust put in appropriate container for disposal. Waste disposal method in accordance with Federal, State and Local Laws.
Disposal of contaminated packaging	Dispose of as unused product.
Waste treatment	MUST BE PROCESSED THROUGH IN-HOUSE TREATMENT
Sewage disposal	AVOID CITY DRAINS

SECTION 14: Transport information

14.1 UN Number	None
14.2 UN Proper Shipping Name	None
14.3 Transport hazard class(es)	None
14.4 Packing group	None
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	None

SECTION 15: Regulatory information

Attention all Retailers of Mason Stains

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***SARA 313

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13th Report on Carcinogens on October 2, 2014.

<http://monographs.iarc.fr/ENG/Classification/index.php>

MATERIAL SAFETY DATA SHEET

IssueDate: 12/11/00

TO THE PURCHASER: This MSDS contains important environmental, safety and health information for your employees. Federal regulations require that this information be made available to them. If you resell this product, a copy of this MSDS should be given to the buyer.

PRODUCT IDENTIFICATION: 3195/3195-2
(Common Name) Ferro frit 3195

CHEMICAL FAMILY Frits TSCA Inventory CAS # 65997-18-4*

SYNONYM: Chemical substances manufactured in the production of frit.
(From US-EPA/TSCA description) "Frit is a mixture of inorganic chemical substances produced by rapidly quenching a molten, complex combination of materials, confining the chemical substances thus manufactured as non-migratory componenets of glassy solid flakes or granules. ---"

SECTION I

MANUFACTURERS NAME: Ferro Corporation, Frit Division

MAIL: 4150 East 56th. Street
P.O. Box 6550
Cleveland, Ohio 44101

SHIP: 4150 East 56th. Street
Cleveland, Ohio 44105

TELEPHONE: Ferro 24 hour Informational number: (216) 641-5324
Facility Informational number: (216) 641-8580

SECTION IIa - HAZARDOUS COMPONENTS

Frit is a fused silicate glass substance. The components of this glass product listed below are from the inventory of potentially hazardous substances referenced by FED-OSHA in 29 CFR 1910.1200.

<u>COMPONENT:</u>	Exposure Limit (Air), mg ³		
	<u>ACGIH/TLV</u>	<u>FED-OSHA/PEL</u>	<u>CAL-OSHA/PEL</u>
Particulates not otherwise classified (Total dust)	10/3 (r)	15/5 (r)	10.

(r) Respirable

SECTION IIb - "SARA III" DATA

This product contains the following component(s) that require reporting under Section 313 of the Emergency Section of the Emergency Planning and Community Right-To-Know Act, also known as Title III of the SARA (Superfund Amendments and Reauthorization Act), and 40 CFR Part 372.

COMPONENT:

PERCENT PRESENT: (a)

None

(a) The percent reported is based on the theoretical composition of this frit. While existing in theory, the component(s) mentioned are only present as part of FRIT (CAS # 65997-18-4*).

SECTION III - PHYSICAL DATA

SPECIFIC GRAVITY (H₂O = 1) 1.6-3.0

MELTING POINT (°F.) ≥ 1200

SOLUBILITY IN WATER Negligible

APPEARANCE AND ODOR Frit flake or milled glass powder / Odorless

Boiling Point / Vapor Pressure / Vapor Density / % Volatiles By Volume / Evaporatio
All N/A

SECTION IV - FIRE & EXPLOSION HAZARD DATA

FLASH POINT: N/A

FLAMMABLE LIMITS: N/A

EXTINGUISHING MEDIA: None

UNUSUAL FIRE & EXPLOSION HAZARDS: None

SECTION V - REACTIVITY DATA

STABILITY: Stable X

Unstable N/A

Conditions to avoid N/A

INCOMPATIBILITY: (Materials to avoid) N/A

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Avoid fumes from firing

HAZARDOUS POLYMERIZATION: Will not occur X

Conditions to avoid N/A

SECTION VI - HEALTH HAZARD DATA

PRINCIPAL ROUTES OF ABSORPTION: Inhalation and Ingestion

EFFECTS OF OVEREXPOSURE: Prolonged contact with frit dust can be very irritating to the eyes and/or skin. High dust levels can be irritating to the respiratory tract.

With adequate ventilation, dust control, and good personal hygiene, symptoms of overexposure should not occur. Advise regular medical monitoring of employees by a physician competent in industrial health.

CARCINOGENICITY: N/A

EMERGENCY AND FIRST AID PROCEDURES: If overexposure is suspected move employees to fresh air; if breathing is difficult give oxygen. Call a physician. For dust in eyes; flush immediately with clean water and call a physician.

SOURCE OF HEALTH HAZARD DATA: This MSDS was developed from information on the constituent substances of this frit material, not from test data on the frit itself.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Uncontaminated material may be recovered and re-used. If contaminated scoop, vacuum, or wash into a receptacle for disposal.

WASTE DISPOSAL METHOD: Follow Federal or State and Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Protect containers against physical damage; store in dry area away from feed and food products.

OTHER PRECAUTIONS: Employees should wash and change into clean clothes before going home.

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION: (Specify type) Use a NIOSH approved dust and/or fume respirator as necessary.

VENTILATION: Local Exhaust - Recommended for dust control; vent dust to collector.

PROTECTIVE GLOVES: Use judgement - work gloves recommended.

EYE PROTECTION: Use judgement - safety glasses recommended.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear appropriate clean, protective clothing such as, but not limited to, coveralls, smocks, aprons, gloves, shoes and hats.

WORK/HYGIENIC PRACTICES: Food, beverages and smoking materials should NOT be in the work area. Hygiene is very important; employees should wash thoroughly before eating, drinking, smoking or applying

Judgements as to the suitability of information herein or the purchaser's purposes are necessarily the purchaser's responsibility. Reasonable care has been taken in the preparation of this information, but FERRO EXTENDS NO WARRANTIES, MAKES NO REPRESENTATIONS AND ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OR SUITABILITY OF THIS INFORMATION FOR ANY PURCHASER'S USE OR FOR ANY CONSEQUENCE OF ITS USE.

Non-Standard Abbreviations Used on Material Safety Data Sheets

ACGIH - American Conference of Government Industrial Hygienists

CAL/OSHA - California Occupational Safety and Health Administration

CAS # - Chemical Abstract Service Number

CFR - Code of Federal Regulations

FED/OSHA - Federal Occupational Safety and Health Administration

IARC - International Agency for Research on Cancer

MSDS - Material Safety Data Sheet

N/A - Not Applicable

NIOSH - National Institute for Occupational Safety and Health

NTP - national Toxicology Program (Department of Health and Human Services)

PEL - Permissible Exposure Limit

TSCA - Toxic Substances Control Act

TLV - Threshold Limit Value (registered terminology of ACGIH)

TWA - Time Weighted Average

US-EPA - United States Environmental Protection Agency



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According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Revision Date: 10/01/2019

Supersedes Date: 10/08/2018

Date of Issue: 05/24/2018

Version: 3.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: MULTIMAX™ Lite

1.2. Intended Use of the Product

Adhesive. For professional use only.

1.3. Name, Address, and Telephone of the Responsible Party

Company

LATICRETE International

1 Laticrete Park, N

Bethany, CT 06524

T (203)-393-0010

www.laticrete.com

Company

LATICRETE Canada ULC

PO Box 129, Emeryville, Ontario, Canada

NOR-1A0

1.4. Emergency Telephone Number

Emergency Number : For chemical emergency call ChemTel day or night:
(800)255-3924 (North America)
(800)-099-0731 (Mexico)
+1 (813)248-0585 (International - collect calls accepted)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US/CA Classification

Skin Corr. 1C H314

Eye Dam. 1 H318

Skin Sens. 1 H317

Carc. 1A H350

STOT SE 3 H335

Aquatic Acute 3 H402

Full text of hazard classes and H-statements : see section 16

2.2. Label Elements

GHS-US/CA Labeling

Hazard Pictograms (GHS-US/CA)

:



GHS05



GHS07



GHS08

Signal Word (GHS-US/CA)

: Danger

Hazard Statements (GHS-US/CA)

: H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H335 - May cause respiratory irritation.
H350 - May cause cancer (Inhalation).
H402 - Harmful to aquatic life.

Precautionary Statements (GHS-US/CA)

: P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust, fume.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, and eye protection.

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P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P310 - Immediately call a POISON CENTER or doctor.
P321 - Specific treatment (see section 4 on this SDS).
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US/CA)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture

Name	Product Identifier	% *	GHS Ingredient Classification
Cement, portland, chemicals	(CAS-No.) 65997-15-1	75.4-78.1	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335
Calcium oxide	(CAS-No.) 1305-78-8	41.5-54.7	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 3, H402
Copolymer of vinyl acetate and ethylene with mineral additives and protective colloid	(CAS-No.) Not available	7-13	Comb. Dust
Perlite	(CAS-No.) 93763-70-3	7-13	Not classified
Limestone	(CAS-No.) 1317-65-3	3.8 - 3.9	Not classified
Calcium Sulfate Hemihydrate	(CAS-No.) 13397-24-5	3.8 - 3.9	Not classified
Magnesium oxide (MgO)	(CAS-No.) 1309-48-4	2.26 - 2.34	Not classified
Calcium formate	(CAS-No.) 544-17-2	0.1 - 2	Eye Dam. 1, H318
Quartz	(CAS-No.) 14808-60-7	0.75 – 0.78	Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372
Chromium, ion (Cr6+)	(CAS-No.) 18540-29-9	0.00007 – 0.00008	Skin Sens. 1, H317 Carc. 1B, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-phrases: see section 16

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

** The actual concentration of ingredient(s) is withheld as a trade secret in accordance with the Hazardous Products Regulations (HPR) SOR/2015-17 and 29 CFR 1910.1200.

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SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: Using proper respiratory protection, move the exposed person to fresh air at once. Encourage exposed person to cough, spit out, and blow nose to remove dust. Immediately call a poison center, physician, or emergency medical service.

Skin Contact: Immediately remove contaminated clothing. Immediately flush skin with plenty of water for at least 30 minutes. Get immediate medical advice/attention.

Eye Contact: Immediately rinse with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: Causes severe skin burns and eye damage. May cause respiratory irritation. May cause cancer (Inhalation).

Inhalation: May be corrosive to the respiratory tract. Accelerated Silicosis can occur with exposure to high concentrations of respirable crystalline silica over a relatively short period; lung lesions can appear within five years of the initial exposure. The progression can be rapid. Accelerated silicosis is similar to chronic or ordinary silicosis, except that lung lesions appear earlier and the progression is more rapid.

Acute Silicosis can occur with exposures to very high concentrations of respirable crystalline silica over a very short time period, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough and weight loss. Acute silicosis can be fatal.

Skin Contact: May cause an allergic skin reaction. Redness, pain, swelling, itching, burning, dryness, and dermatitis. Concrete may cause dry skin, discomfort, irritation, severe burns, and dermatitis. Unhardened concrete is capable of causing dermatitis by irritation and allergy. Concrete dust, in association with sweat and friction, can lead to skin irritation and dermatitis. Skin affected by dermatitis may include symptoms such as, redness, itching, rash, scaling, and cracking. Allergic contact dermatitis is caused by sensitization to hexavalent chromium (chromate) present in concrete. The reaction can range from a mild rash to severe skin ulcers.

Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva. Concrete may cause immediate or delayed irritation or inflammation. Eye contact with wet concrete can cause moderate eye irritation, chemical burns and blindness. Eye exposures require immediate first aid and medical attention to prevent significant damage to the eye.

Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: Causes damage to organs through prolonged or repeated exposure. May cause cancer. Repeated exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis. Some studies show that exposure to respirable crystalline silica (without silicosis) or that the disease silicosis may be associated with the increased incidence of several autoimmune disorders such as scleroderma (thickening of the skin), systemic lupus erythematosus, rheumatoid arthritis and diseases affecting the kidneys. Silicosis increases the risk of tuberculosis. Some studies show an increased incidence of chronic kidney disease and end-stage renal disease in workers exposed to respirable crystalline silica.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire. Reacts with water to form corrosive alkalis.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

Explosion Hazard: Product is not explosive as supplied. However, when cured and dried this product may produce explosive combustible dust when cut, sanded, ground, or otherwise processed.

Reactivity: Hydrofluoric acid will react with and dissolve glass, and other silica containing material. May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause violent reaction.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

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Hazardous Combustion Products: None known.

Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not breathe dust. Do not get in eyes, on skin, or on clothing. Avoid generating dust. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions. Avoid generation of dust during clean-up of spills.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Vacuum clean-up is preferred. If sweeping is required use a dust suppressant. Avoid generation of dust during clean-up of spills. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: May release corrosive vapors. Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion. Keep dust levels to a minimum and follow applicable regulations.

Precautions for Safe Handling: Obtain special instructions before use. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not handle until all safety precautions have been read and understood. Handle empty containers with care because they may still present a hazard. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Avoid creating or spreading dust. Proper grounding procedures to avoid static electricity should be followed.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area. Store in original container or corrosive resistant and/or lined container.

Incompatible Materials: Strong acids, strong bases, strong oxidizers. Fluorinated compounds. Ammonia. Ammonium salts. Aluminum.

7.3. Specific End Use(s)

Adhesive. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

Cement, portland, chemicals (65997-15-1)		
USA ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³ (particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter)

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USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	10 mg/m ³ (total dust) 5 mg/m ³ (respirable dust)
USA IDLH	US IDLH (mg/m ³)	5000 mg/m ³
Alberta	OEL TWA (mg/m ³)	10 mg/m ³
British Columbia	OEL TWA (mg/m ³)	1 mg/m ³ (particulate matter containing no Asbestos and <1% Crystalline silica-respirable particulate)
Manitoba	OEL TWA (mg/m ³)	1 mg/m ³ (particulate matter containing no Asbestos and <1% Crystalline silica-respirable particulate matter)
New Brunswick	OEL TWA (mg/m ³)	10 mg/m ³ (particulate matter containing no Asbestos and <1% Crystalline silica)
Newfoundland & Labrador	OEL TWA (mg/m ³)	1 mg/m ³ (particulate matter containing no Asbestos and <1% Crystalline silica-respirable particulate matter)
Nova Scotia	OEL TWA (mg/m ³)	1 mg/m ³ (particulate matter containing no Asbestos and <1% Crystalline silica-respirable particulate matter)
Nunavut	OEL STEL (mg/m ³)	20 mg/m ³
Nunavut	OEL TWA (mg/m ³)	10 mg/m ³
Northwest Territories	OEL STEL (mg/m ³)	20 mg/m ³
Northwest Territories	OEL TWA (mg/m ³)	10 mg/m ³
Ontario	OEL TWA (mg/m ³)	1 mg/m ³ (containing no Asbestos and <1% Crystalline silica-respirable)
Prince Edward Island	OEL TWA (mg/m ³)	1 mg/m ³ (particulate matter containing no Asbestos and <1% Crystalline silica-respirable particulate matter)
Québec	VEMP (mg/m ³)	10 mg/m ³ (containing no Asbestos and <1% Crystalline silica-total dust) 5 mg/m ³ (containing no Asbestos and <1% Crystalline silica-respirable dust)
Saskatchewan	OEL STEL (mg/m ³)	20 mg/m ³
Saskatchewan	OEL TWA (mg/m ³)	10 mg/m ³
Yukon	OEL STEL (mg/m ³)	20 mg/m ³
Yukon	OEL TWA (mg/m ³)	30 mppcf 10 mg/m ³
Calcium oxide (1305-78-8)		
USA ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	2 mg/m ³
USA IDLH	US IDLH (mg/m ³)	25 mg/m ³
Alberta	OEL TWA (mg/m ³)	2 mg/m ³
British Columbia	OEL TWA (mg/m ³)	2 mg/m ³
Manitoba	OEL TWA (mg/m ³)	2 mg/m ³
New Brunswick	OEL TWA (mg/m ³)	2 mg/m ³
Newfoundland & Labrador	OEL TWA (mg/m ³)	2 mg/m ³
Nova Scotia	OEL TWA (mg/m ³)	2 mg/m ³
Nunavut	OEL STEL (mg/m ³)	4 mg/m ³
Nunavut	OEL TWA (mg/m ³)	2 mg/m ³
Northwest Territories	OEL STEL (mg/m ³)	4 mg/m ³
Northwest Territories	OEL TWA (mg/m ³)	2 mg/m ³
Ontario	OEL TWA (mg/m ³)	2 mg/m ³
Prince Edward Island	OEL TWA (mg/m ³)	2 mg/m ³
Québec	VEMP (mg/m ³)	2 mg/m ³

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Saskatchewan	OEL STEL (mg/m ³)	4 mg/m ³
Saskatchewan	OEL TWA (mg/m ³)	2 mg/m ³
Yukon	OEL STEL (mg/m ³)	4 mg/m ³
Yukon	OEL TWA (mg/m ³)	2 mg/m ³
Quartz (14808-60-7)		
USA ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³ (respirable particulate matter)
USA ACGIH	ACGIH chemical category	A2 - Suspected Human Carcinogen
USA OSHA	OSHA PEL (TWA) (mg/m ³)	50 µg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	0.05 mg/m ³ (respirable dust)
USA IDLH	US IDLH (mg/m ³)	50 mg/m ³ (respirable dust)
Alberta	OEL TWA (mg/m ³)	0.025 mg/m ³ (respirable particulate)
British Columbia	OEL TWA (mg/m ³)	0.025 mg/m ³ (respirable)
Manitoba	OEL TWA (mg/m ³)	0.025 mg/m ³ (respirable particulate matter)
New Brunswick	OEL TWA (mg/m ³)	0.1 mg/m ³ (respirable fraction)
Newfoundland & Labrador	OEL TWA (mg/m ³)	0.025 mg/m ³ (respirable particulate matter)
Nova Scotia	OEL TWA (mg/m ³)	0.025 mg/m ³ (respirable particulate matter)
Nunavut	OEL TWA (mg/m ³)	0.05 mg/m ³ (respirable fraction)
Northwest Territories	OEL TWA (mg/m ³)	0.05 mg/m ³ (respirable fraction)
Ontario	OEL TWA (mg/m ³)	0.1 mg/m ³ (designated substances regulation-respirable)
Prince Edward Island	OEL TWA (mg/m ³)	0.025 mg/m ³ (respirable particulate matter)
Québec	VEMP (mg/m ³)	0.1 mg/m ³ (respirable dust)
Saskatchewan	OEL TWA (mg/m ³)	0.05 mg/m ³ (respirable fraction)
Yukon	OEL TWA (mg/m ³)	300 particle/mL
Limestone (1317-65-3)		
USA OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	10 mg/m ³ (total dust) 5 mg/m ³ (respirable dust)
Alberta	OEL TWA (mg/m ³)	10 mg/m ³
British Columbia	OEL STEL (mg/m ³)	20 mg/m ³ (total dust)
British Columbia	OEL TWA (mg/m ³)	10 mg/m ³ (total dust) 3 mg/m ³ (respirable fraction)
New Brunswick	OEL TWA (mg/m ³)	10 mg/m ³ (particulate matter containing no Asbestos and <1% Crystalline silica)
Nunavut	OEL STEL (mg/m ³)	20 mg/m ³
Nunavut	OEL TWA (mg/m ³)	10 mg/m ³
Northwest Territories	OEL STEL (mg/m ³)	20 mg/m ³
Northwest Territories	OEL TWA (mg/m ³)	10 mg/m ³
Québec	VEMP (mg/m ³)	10 mg/m ³ (Limestone, containing no Asbestos and <1% Crystalline silica-total dust)
Saskatchewan	OEL STEL (mg/m ³)	20 mg/m ³
Saskatchewan	OEL TWA (mg/m ³)	10 mg/m ³
Yukon	OEL STEL (mg/m ³)	20 mg/m ³
Yukon	OEL TWA (mg/m ³)	30 mppcf 10 mg/m ³
Magnesium oxide (MgO) (1309-48-4)		
USA ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³ (inhalable particulate matter)
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ (fume, total particulate)
USA IDLH	US IDLH (mg/m ³)	750 mg/m ³ (fume)
Alberta	OEL TWA (mg/m ³)	10 mg/m ³ (fume)
British Columbia	OEL STEL (mg/m ³)	10 mg/m ³ (respirable dust and fume)

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British Columbia	OEL TWA (mg/m ³)	10 mg/m ³ (fume, inhalable) 3 mg/m ³ (respirable dust and fume)
Manitoba	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable particulate matter)
New Brunswick	OEL TWA (mg/m ³)	10 mg/m ³ (fume)
Newfoundland & Labrador	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable particulate matter)
Nova Scotia	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable particulate matter)
Nunavut	OEL STEL (mg/m ³)	20 mg/m ³ (inhalable fraction)
Nunavut	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable fraction)
Northwest Territories	OEL STEL (mg/m ³)	20 mg/m ³ (inhalable fraction)
Northwest Territories	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable fraction)
Ontario	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable)
Prince Edward Island	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable particulate matter)
Québec	VEMP (mg/m ³)	10 mg/m ³ (fume)
Saskatchewan	OEL STEL (mg/m ³)	20 mg/m ³ (inhalable fraction)
Saskatchewan	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable fraction)
Yukon	OEL STEL (mg/m ³)	10 mg/m ³ (fume)
Yukon	OEL TWA (mg/m ³)	10 mg/m ³ (fume)
Chromium, ion (Cr6+) (18540-29-9)		
USA OSHA	OSHA PEL (TWA) (mg/m ³)	5 µg/m ³
Calcium Sulfate Hemihydrate (13397-24-5)		
USA ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³ (inhalable particulate matter)
USA OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	10 mg/m ³ (total dust) 5 mg/m ³ (respirable dust)
Alberta	OEL TWA (mg/m ³)	10 mg/m ³
British Columbia	OEL STEL (mg/m ³)	20 mg/m ³ (total dust)
British Columbia	OEL TWA (mg/m ³)	10 mg/m ³ (total dust) 3 mg/m ³ (respirable fraction)
Manitoba	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable particulate matter)
Newfoundland & Labrador	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable particulate matter)
Nova Scotia	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable particulate matter)
Ontario	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable)
Prince Edward Island	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable particulate matter)
Québec	VEMP (mg/m ³)	10 mg/m ³ (containing no Asbestos and <1% Crystalline silica-total dust) 5 mg/m ³ (containing no Asbestos and <1% Crystalline silica-respirable dust)
Saskatchewan	OEL STEL (mg/m ³)	20 mg/m ³
Saskatchewan	OEL TWA (mg/m ³)	10 mg/m ³
Yukon	OEL STEL (mg/m ³)	20 mg/m ³
Yukon	OEL TWA (mg/m ³)	30 mppcf 10 mg/m ³
Perlite (93763-70-3)		
USA OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ (General Industry - total dust)
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	10 mg/m ³ (total dust) 5 mg/m ³ (respirable dust)
British Columbia	OEL TWA (mg/m ³)	10 mg/m ³ (total dust) 3 mg/m ³ (respirable fraction)
New Brunswick	OEL TWA (mg/m ³)	10 mg/m ³ (particulate matter containing no Asbestos and <1% Crystalline silica)
Nunavut	OEL STEL (mg/m ³)	20 mg/m ³

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Nunavut	OEL TWA (mg/m ³)	10 mg/m ³
Northwest Territories	OEL STEL (mg/m ³)	20 mg/m ³
Northwest Territories	OEL TWA (mg/m ³)	10 mg/m ³
Saskatchewan	OEL STEL (mg/m ³)	20 mg/m ³
Saskatchewan	OEL TWA (mg/m ³)	10 mg/m ³
Yukon	OEL TWA (mg/m ³)	30 mppcf
Silica, crystalline (general form) (Not Applicable)		
USA OSHA	OSHA PEL (TWA) (mg/m ³)	50 µg/m ³ (excludes construction work, agricultural operations, and exposures that result from the processing of sorptive clays)

8.2. Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Proper grounding procedures to avoid static electricity should be followed.

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles. Face shield. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Chemically resistant materials and fabrics. Corrosion-proof clothing.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Chemical safety goggles and face shield.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: Not available
Odor	: Not available
Odor Threshold	: Not available
pH	: Not available
Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: Not available
Flash Point	: Not available
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20°C	: Not available
Relative Density	: Not available
Specific Gravity	: Not available
Solubility	: Not available
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Not available

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According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:** Hydrofluoric acid will react with and dissolve glass, and other silica containing material. May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause violent reaction.
- 10.2. Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).
- 10.3. Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- 10.4. Conditions to Avoid:** Direct sunlight, extremely high or low temperatures, and incompatible materials. Sparks, heat, open flame and other sources of ignition. Dust accumulation.
- 10.5. Incompatible Materials:** Strong acids, strong bases, strong oxidizers. Fluorinated compounds. Ammonia. Ammonium salts. Aluminum.
- 10.6. Hazardous Decomposition Products:** Metal oxides. Sulfur oxides. Carbon oxides (CO, CO₂).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Causes severe skin burns and eye damage.

Eye Damage/Irritation: Causes serious eye damage.

Respiratory or Skin Sensitization: May cause an allergic skin reaction.

Germ Cell Mutagenicity: Not classified

Carcinogenicity: May cause cancer (Inhalation).

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: May be corrosive to the respiratory tract. Accelerated Silicosis can occur with exposure to high concentrations of respirable crystalline silica over a relatively short period; lung lesions can appear within five years of the initial exposure. The progression can be rapid. Accelerated silicosis is similar to chronic or ordinary silicosis, except that lung lesions appear earlier and the progression is more rapid.

Acute Silicosis can occur with exposures to very high concentrations of respirable crystalline silica over a very short time period, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough and weight loss. Acute silicosis can be fatal.

Symptoms/Injuries After Skin Contact: May cause an allergic skin reaction. Redness, pain, swelling, itching, burning, dryness, and dermatitis. Concrete may cause dry skin, discomfort, irritation, severe burns, and dermatitis. Unhardened concrete is capable of causing dermatitis by irritation and allergy. Concrete dust, in association with sweat and friction, can lead to skin irritation and dermatitis. Skin affected by dermatitis may include symptoms such as, redness, itching, rash, scaling, and cracking. Allergic contact dermatitis is caused by sensitization to hexavalent chromium (chromate) present in concrete. The reaction can range from a mild rash to severe skin ulcers.

Symptoms/Injuries After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva. Concrete may cause immediate or delayed irritation or inflammation. Eye contact with wet concrete can cause moderate eye irritation, chemical burns and blindness. Eye exposures require immediate first aid and medical attention to prevent significant damage to the eye.

Symptoms/Injuries After Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: Causes damage to organs through prolonged or repeated exposure. May cause cancer. Repeated exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis. Some studies show that exposure to respirable crystalline silica (without silicosis) or that the disease silicosis may be associated with the increased incidence of several autoimmune disorders such as scleroderma (thickening of the skin), systemic lupus erythematosus, rheumatoid arthritis and diseases affecting the kidneys. Silicosis increases the risk of tuberculosis. Some studies show an increased incidence of chronic kidney disease and end-stage renal disease in workers exposed to respirable crystalline silica.

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Calcium oxide (1305-78-8)	
LD50 Oral Rat	> 2000 mg/kg
LD50 Dermal Rabbit	> 2500 mg/kg

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Quartz (14808-60-7)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rat	> 5000 mg/kg
Magnesium oxide (MgO) (1309-48-4)	
LD50 Oral Rat	3870 mg/kg
Perlite (93763-70-3)	
LD50 Oral Rat	12960 mg/kg (Mouse)
Quartz (14808-60-7)	
IARC Group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
Chromium, ion (Cr6+) (18540-29-9)	
IARC Group	1
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
OSHA Specifically Regulated Carcinogen List	In OSHA Specifically Regulated Carcinogen list.
Sepiolite (Mg₂H₂(SiO₃)₃.xH₂O) (63800-37-3)	
IARC Group	3
Silica, crystalline (general form) (Not Applicable)	
IARC Group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
OSHA Specifically Regulated Carcinogen List	In OSHA Specifically Regulated Carcinogen list.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General: Harmful to aquatic life.

Calcium oxide (1305-78-8)	
LC50 Fish 1	50.6 mg/l
Chromium, ion (Cr6+) (18540-29-9)	
LC50 Fish 1	36.2 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
LC50 Fish 2	7.6 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)

12.2. Persistence and Degradability

MULTIMAX™ Lite	
Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

MULTIMAX™ Lite	
Bioaccumulative Potential	Not established.
Calcium oxide (1305-78-8)	
BCF Fish 1	(no bioaccumulation)

12.4. Mobility in Soil

Not available

12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Ecology - Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

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According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

- 14.1. In Accordance with DOT** Not regulated for transport
14.2. In Accordance with IMDG Not regulated for transport
14.3. In Accordance with IATA Not regulated for transport
14.4. In Accordance with TDG Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

MULTIMAX™ Lite	
SARA Section 311/312 Hazard Classes	Health hazard - Specific target organ toxicity (single or repeated exposure) Health hazard - Carcinogenicity Health hazard - Respiratory or skin sensitization Health hazard - Serious eye damage or eye irritation Health hazard - Skin corrosion or Irritation
Cement, portland, chemicals (65997-15-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Calcium oxide (1305-78-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Quartz (14808-60-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Limestone (1317-65-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Magnesium oxide (MgO) (1309-48-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

15.2. US State Regulations

Quartz (14808-60-7)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.
Chromium, ion (Cr6+) (18540-29-9)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.
U.S. - California - Proposition 65 - Developmental Toxicity	WARNING: This product contains chemicals known to the State of California to cause birth defects.
Silica, crystalline (general form)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.
Cement, portland, chemicals (65997-15-1)	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	
Calcium oxide (1305-78-8)	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	
Quartz (14808-60-7)	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	
Limestone (1317-65-3)	

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U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Magnesium oxide (MgO) (1309-48-4)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Chromium, ion (Cr6+) (18540-29-9)

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Calcium Sulfate Hemihydrate (13397-24-5)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Perlite (93763-70-3)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

15.3. Canadian Regulations

Cement, portland, chemicals (65997-15-1)

Listed on the Canadian DSL (Domestic Substances List)

Calcium oxide (1305-78-8)

Listed on the Canadian DSL (Domestic Substances List)

Quartz (14808-60-7)

Listed on the Canadian DSL (Domestic Substances List)

Limestone (1317-65-3)

Listed on the Canadian NDSL (Non-Domestic Substances List)

Magnesium oxide (MgO) (1309-48-4)

Listed on the Canadian DSL (Domestic Substances List)

Calcium Sulfate Hemihydrate (13397-24-5)

Listed on the Canadian DSL (Domestic Substances List)

Perlite (93763-70-3)

Listed on the Canadian DSL (Domestic Substances List)

Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List)

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision : 10/01/2019

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

GHS Full Text Phrases:

Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Carc. 1	Carcinogenicity, Category 1
Carc. 1A	Carcinogenicity Category 1A
Carc. 1B	Carcinogenicity Category 1B
Comb. Dust	Combustible Dust
Eye Dam. 1	Serious eye damage/eye irritation Category 1

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Skin Corr. 1C	Skin corrosion/irritation Category 1C
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization, Category 1
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H331	Toxic if inhaled
H335	May cause respiratory irritation
H350	May cause cancer
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

NA GHS SDS 2015 (Can, US)



KENTUCKY-TENNESSEE CLAY COMPANY

Mayfield, KY Plant
Gleason, TN Plant
Sledge, MS Plant

MATERIAL SAFETY DATA SHEET

To comply with OSHA's 29 CFR 1910.1200 and Bill No. 70 WHMIS Hazard Communication Standards.

SECTION I. IDENTITY OF PRODUCT AND PRODUCER

DATE PREPARED: April 3, 2006

DATE MAILED: 02-07-08

TRADE NAME: Old Mine # 4

CHEMICAL NAME: BALL CLAY, Hydrous Aluminum Silicate

CAS NUMBER 1332-58-7

PRODUCER'S NAME AND ADDRESS (HQ):

Kentucky-Tennessee Clay Company
5080 State Route 45 South
Mayfield, KY 42066

TELEPHONE NUMBERS:

270-247-3061

270-247-0293 FAX

EMERGENCY CONTACT:

CHEMTREC: (800) 424-9300*

*To be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals.

SECTION II. HAZARDOUS INGREDIENTS

Free Silica (Quartz)*

Typically 10 - 30%

CAS NO. 14808-60-7

Titanium Dioxide

Typically Less Than 2.6%

CAS NO. 13463-67-7

*Ball clays reported on this Company's Material Safety Data Sheet, Form 0604b, contain crystalline silica, as quartz up to 30% by dry weight depending on product type. Some of this silica is not fine enough to normally be considered respirable.

SECTION III. PHYSICAL DATA

FUSION RANGE: 1569 - 1785° C.

SPECIFIC GRAVITY: 2.4 - 2.65

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: Below 100° C. None

VAPOR PRESSURE: Not Applicable

pH: 3.5 - 7.5

ODOR AND APPEARANCE: Earthy odor when wet, raw color light gray to brown

SECTION IV. FIRE AND EXPLOSION DATA: Non-flammable

SECTION V. HEALTH HAZARD DATA

OSHA PEL: Respirable Crystalline Quartz (TWA-TLV) = 0.1 mg/m³

ACGIH TLV: Respirable Crystalline Quartz (TWA-TLV) = 0.1 mg/m³

Crystobalite & Tridymite (See STABILITY) (TWA-TLV) = 0.05 mg/m³

NIOSH TWA: Respirable Crystalline Quartz = 0.05 mg/m³

ROUTE OF ENTRY: Inhalation

HEALTH HAZARDS: WARNING: This clay product contains crystalline silica which may cause delayed respiratory disease (silicosis) if inhaled over a prolonged period of time. Avoid breathing dust. Use NIOSH/MSHA approved respirator where TLV for crystalline silica may be exceeded.

IARC MONOGRAPH VOLUME 68, 1997 concludes that there is sufficient evidence that inhaled crystalline silica causes cancer in humans. IARC classification: Group 1.

The NTP, in the Sixth Annual Report on Carcinogens, 1991, has added crystalline silica to its list of substances that are "reasonably anticipated to be carcinogens".

WARNING: This product contains Titanium Dioxide (TiO₂). Inhalation may cause damage to respiratory system. Identified as a potential carcinogen by NIOSH. OSHA TWA for TiO₂ is 15 mg/m³.

FIRST AID: EYES: Flush thoroughly with water for 10 to 15 minutes. Contact physician if irritation persists.

BREATHING: If breathing difficulty develops, remove to fresh air. If breathing difficulty persists, contact physician.

WARNING: IARC Monograph Volume 69, 1997, concludes that 2,3,7,8-TCDD (a dioxin) is carcinogenic to humans.

Form 0604b

SECTION VI. REACTIVITY DATA

STABILITY: Ball clay is stable under ordinary conditions. When exposed to high temperatures, free quartz can change crystal structure to form tridymite (above 870° C.) or cristobalite (above 1470° C.) which have greater health hazards than quartz.

INCOMPATIBILITY: (Materials to avoid) - None

HAZARDOUS POLYMERIZATION: Will not occur

SECTION VII. SPILL, LEAK, AND DISPOSAL INFORMATION

ACTION TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Clean up and collect, minimizing dust. Do not exceed recommended PEL or TLV. Avoid Breathing Dust. Wear an approved respirator. **CAUTION:** When water is applied, product becomes slippery.

WASTE DISPOSAL METHOD: Follow federal, state and local regulations for solid waste disposal. Under RCRA (40 CFR Part 261) ball clay is not a hazardous waste.

COMMUNITY RIGHT TO KNOW: California's Proposition 65 lists crystalline silica as a carcinogen, and 2,3,7,8-TCDD (dioxin) as known to cause cancer and reproductive toxicity.

OTHER PRECAUTIONS: Product becomes slippery when wet. Follow good personal hygiene practices. Wash hands prior to eating.

SECTION VIII. SPECIAL PROTECTION INFORMATION

VENTILATION: Recommended method.

RESPIRATORY PROTECTION: If dust concentrations exceed recommended PEL or TLV for short time durations, use NIOSH/MSHA approved dust respirators. If spraying wet coatings, use NIOSH/MSHA dust/mist respirators.

EYE PROTECTION: Wear tight fitting goggles if high dust concentrations exist. NIOSH recommends that contact lenses not be worn when working with crystalline silica.

SKIN PROTECTION: Wear gloves appropriately to the activity.

- OTHER:**
1. Dust exposure levels in excess of appropriate PEL or TLV should be reduced by feasible engineering and/or administrative controls.
 2. It is recommended that the employer obtain a copy of the ASTM E 1132 information package, "Standard Practice for Health Requirements Relating to Occupational Exposure to Quartz Dust".
 3. Government regulations require that exposed personnel receive appropriate training in safe work habits when working with crystalline silica where the potential exists for exceeding the PEL or TLV.

SECTION IX. SPECIAL PRECAUTIONS

Minimize dust generation and exposure. Do not breathe dust. TWA should not exceed TLV or PEL. Utilize gloves.

ACGIH recommends periodic physical examinations for those employees who are exposed to respirable crystalline silica levels greater than 50% of the TLV or PEL.

Trace amounts of dioxin congeners, including TCDD, have been detected in parts per trillion (ppt). These trace amounts are not believed to be a health risk, but Special Protections and Special Precautions noted above are advised. Methods of transmission may include inhalation, ingestion, or dermal absorption.

Ball clay is not hazardous under DOT regulations.

Manufacturers who crush and grind ceramic bodies fired to high temperatures should recognize possible presence of tridymite and/or cristobalite which have greater health hazards than quartz.

Data, information and recommendations recorded herein are believed to be accurate. Kentucky-Tennessee Clay Company makes no warranty, either expressed or implied, with respect thereto and disclaims all liability from reliance thereon. Standards may vary in different non-U.S. jurisdictions. Follow applicable guidelines.

SAFETY DATA SHEET

Section 1: IDENTIFICATION

Product Name: 798 Black Sculpture Clay with Grog

Company Name: Standard Clay Company
24 Chestnut Street
Carnegie, PA 15106-2028 Technical@standardclay.com

Telephone: 412-276-6333

Emergency Telephone: 911

Recommended use of product: Ceramic ware

Section 2: HAZARDS IDENTIFICATION

Contains Crystalline Silica >1% Respirable

**GHS Label elements/Hazard
Pictograms**



Signal Word:
Danger

OSHA/HCS status: Clay mixture in dry form is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification of the substance: Carcinogenicity (inhalation) - Category 1A and Specific organ toxicity (Repeated substance or mixture: Exposure) (Respiratory tract through inhalation) - Category 1

Hazard Statement: (H350) Cancer Hazard. Contains quartz (crystalline silica) which may cause cancer. Risk of cancer depends upon duration and level of exposure to the dust. Not an acute hazard. (H332) Prolonged inhalation of dust may cause lung injury. Inhalation of high concentrations of dust may cause mechanical irritation and discomfort of the respiratory tract. Repeated exposure may have chronic effects. (H316 + H320 + H335) Can cause skin, respiratory, and eye irritation.



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Precautionary Statements: Contains Crystalline Silica $\geq 1\%$ Respirable (P261) Avoid breathing dust. (P280) Wear protective gloves, eye, and respiratory protection.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	CAS NUMBER	% OF FORMULA
Kaolin/Clay	1332-58-7	0% - 50%
Crystalline silica	14808-60-7	0% - 40%
Mullite	68476-25-5	0% - 35%
Feldspar	7439-96-5	0-15%

Section 4: FIRST-AID MEASURES

DESCRIPTION OF FIRST-AID MEASURES

Ingestion: Contact a physician immediately.

Inhalation: May cause irritation; remove from exposure.

Skin Contact: May cause irritation; rinse skin with soap and water.

Eye Contact: May cause irritation; flush eyes with water for at least 15 minutes. If irritation continues afterwards, contact a physician.

Symptoms and Effects, both Acute and Delayed

Eye Contact: Prolonged contact with large amounts of dust may cause mechanical irritation.

Skin Contact: Prolonged contact with large amounts of dust may cause mechanical irritation



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Inhalation:	Inhalation of high concentrations of dry clay dust may cause mechanical irritation and discomfort. Long term exposure may cause chronic effects (see section 11).
Ingestion:	Large quantities ingested may cause gastrointestinal irritation.
Chronic Symptoms:	Repeated or prolonged exposure to respirable crystalline silica dust may cause lung damage in the form of silicosis. Symptoms will include shortness of breath, fever, fatigue, loss of appetite, chest pain, dry non-productive cough.

Section 5: FIRE-FIGHTING MEASURES

General Fire Hazards:	Clay mixture in dry or moist form is not flammable and does not support fire. The paper bags or plastic bags and cardboard boxes containing the mixture are flammable.
Extinguishing Media:	Use appropriate extinguishing media for surrounding fire.
Chemical Hazards from fire:	Clay mixture does not contain hazardous decomposition products.
Protective actions and Equipment for Fire-fighters:	Clay mixtures and packaging can become slippery when wet. Fire-fighters should wear appropriate protective equipment.

Section 6: ACCIDENTAL RELEASE MEASURES

Clean-up Methods	If appropriate, use gentle spray to down and minimize dust generation.
Personal Precautions, Protective Equipment:	Wear appropriate protective equipment and clothing during clean-up. When dry sweeping use NIOSH approved respirators when dust levels exceed exposure limits



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Environmental Precautions: Clay is a natural mineral product mixture and will not cause adverse effects to the water system other than turbidity from suspended particles.

Methods and Materials for Containment and Clean up: Clean up any wet spills or clay slop with a damp sponge. For dry spills, spray with water and use a damp sponge to clean up.

Section 7: HANDLING AND STORAGE

Precautions for Safe Handling and Use: Use proper lifting techniques to avoid physical injury.

Conditions for Safe Storage: No special storage considerations. Do not store moist clay mixture below freezing point.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

AIRBORNE EXPOSURE LIMITS

Ingredients	OSHA PEL/ACGIH TLV
Kaolin/Clay	5mg/m ³ / 2mg/m ³ respirable
Crystalline silica- quartz	0.1 mg/m ³ / 0.025mg /m ³ respirable
Mullite	5mg/m ³ / 2mg/m ³ respirable
Feldspar	5mg/m ³ / 2mg/m ³ respirable

Engineering Measures



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Clay mixture in moist form poses no inhalation health risk. Once clay mixture has dried, there may be dust generated by cleaning and working processes. In the event that dust is generated, use local exhaust ventilation or other engineering controls as required to maintain exposures below applicable occupational exposure limits (TLV).

Personal Protective Equipment (PPE)

Respiratory protection:

Dust is generated when working with dry clay mixture. To minimize exposure to dust and/or crystalline silica, cutting or sanding dry clay products should be conducted with sufficient ventilation. Respirable dust and quartz levels should be monitored regularly. Dust and quartz levels in excess of appropriate exposure limits should be reduced by feasible engineering controls, including (but not limited to) wet sanding, wet suppression, ventilation, and process enclosure. When such controls are not feasible, NIOSH/MSHA approved respirators must be worn in accordance with a respiratory protection program which meets OSHA requirements as set forth at 29 CFR1910.134 and ANSI Z88.2-1080 "Practices for Respiratory Protection". In most cases, a disposable N-95 Particulate Respirator is sufficient..

Eyes:

Use of NIOSH/OSHA approved safety glasses with side shields is recommended. Face shields should also be used when dry sawing clay products. Wear tight fitting dust goggles when excessively (visible) dusty conditions are present or are anticipated. NIOSH recommends that contact lenses not be worn when working with crystalline silica dust.

Skin protection:

Protective Clothing is not essential. Use gloves and/or protective clothing if abrasion or allergic reactions are experienced.

Hygienic Practices:

Food, beverages, and smoking materials should not be in work area. Employees should wash hands thoroughly before eating, drinking, or smoking.

Section 9: PHYSICAL/CHEMICAL PROPERTIES

Appearance (physical state, color, etc.):	Solid
Upper/lower flammability or explosive limits:	None
Odor:	None
Vapor pressure:	N/A
Odor threshold :	Negligible
Vapor density:	N/A
pH:	N/A
Relative density:	N/A
Freezing point:	N/A
Solubility(ies):	N/A
Initial boiling point and boiling range:	N/A
Flash Point:	N/A
Evaporation rate:	N/A
Flammability (solid gas):	N/A
Partition coefficient: n-octanol/water:	None
Auto-ignition temperature:	N/A
Decomposition temperature:	None
Viscosity :	N/A

Section 10 : STABILITY /REACTIVITY

Reactivity:	No dangerous reactions are known under normal conditions.
Chemical stability:	Stable at standard temperature and pressure. No stabilizers required to maintain chemical stability. Safety issues - Mold may



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form in plastic bag (moist clay mixture) after several months of shelf life.

Possibility of hazardous reactions: None known

Conditions to avoid: None known

Incompatibility/ Hazardous decomposition products: None known

Section 11: TOXICOLGICAL INFORMATION

Primary Route of Exposure: Skin, Eye Contact, Inhalation and Ingestion

Specific Organ Toxicity - Single Exposure: Target organs include ears, skin, respiratory system, and gastrointestinal tract.

Specific Organ Toxicity - Repeated Exposure: Causes damage to eyes, skin, respiratory system, and gastrointestinal tract through prolonged or repeated exposure.

Acute Short-Term Exposure Effects: May cause eye irritation, skin irritation, respiratory tract irritation, and gastrointestinal tract irritation. Inhalation of high concentrations of dry clay dust may cause mechanical irritation and discomfort. Long term exposure may cause chronic effects.

Chronic Long Term Exposure Effects: Silica has been classified by OSHA as a human lung carcinogen. Repeated or prolonged exposure of respirable crystalline silica dust may cause lung damage in the form of silicosis.

Effects of silicosis include bronchitis/chronic obstructive pulmonary disorder, increased susceptibility to tuberculosis, scleroderma (a disease affecting skin, blood vessels, joints and skeletal muscles), and possible renal disease. Acute silicosis can be fatal.

Related Symptoms: Symptoms will include shortness of breath, fever, fatigue, loss of appetite, chest pain, dry non-productive cough.

Medical Conditions Aggravated by Exposure: Individuals with pre-existing allergies, eye disorders, skin disorders, respiratory disorders and/or gastrointestinal disorders may have increased susceptibility to the effects of exposure.



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OSHA, IARC, and NTP Carcinogen Classifications

Chemicals with Carcinogen Potential	CAS #	OSHA	IARC	NTP
Crystalline Silica - quartz	14808-60-7	YES	YES - 1	YES
Cristobalite	14464-46-1	YES	YES - 1	YES

IARC - International Agency for Research on Cancer
1 = Carcinogenic to humans
2A = Probably carcinogenic to humans

2B = Possibly carcinogenic to humans
OSHA - Occupational Safety & Health Administration
NTP - National Toxicology Program

Section 12: ECOLOGICAL INFORMATION (non-mandatory)

Eco toxicity: None

Persistence and degradability: Yes

Bioaccumulation potential: No

Mobility in soil: No

Other adverse environmental effects: None

Section 13: DISPOSAL CONSIDERATIONS (non-mandatory)

Handling for Disposal: None

Methods of Disposal: None

Section 14: TRANSPORT INFORMATION (non-mandatory)

UN Shipping Name: N/A

UN Number: N/A

Environmental Hazard: None

Packing Group: None

Transportation Hazard Class: N/A

Special Precautions: None

NOT DANGEROUS FOR TRANSPORT



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Section 15: REGULATORY INFORMATION (non-mandatory)

Silica (Quartz) is listed by California, Proposition 65, as a carcinogen.

Silica (Quartz) is listed on the IARC, OSHA, and NTP carcinogen list.

All ingredients are on U.S. TSCA Inventory.

All products listed in this SDS conform to ASTM-4236 standards. Materials have been evaluated under the provisions of 16 CFR 1500.14 of the Labeling of Hazardous Art Material Act. These products have been listed as non-toxic and non-flammable under proposed use conditions. No specific warning is required.

Section 16: OTHER INFORMATION

This information is furnished without warranty, representation, inducement or license of any kind, except that it is accurate to the best of knowledge of Standard Clay Company or obtained from other references and sources believed to be accurate.

Standard Clay Company does not assume any legal responsibility for use or reliance on our products. Customers are encouraged to conduct their own tests before using any product. Read all product labels prior to handling.

Preparation date: 02/04/2023

U.S. SILICA COMPANY

Safety Data Sheet European Union

Page 1 of 10

Product Name: Silica Sand and Ground Silica

Product Description: Crystalline Silica

1. Identification of the substance/preparation and of the company/undertaking

1.1. Identification of the substance or preparation

Product Name/Trade Names:

Sand and Ground Silica Sand (flour) sold under various names: ASTM TESTING SANDS • GLASS SAND • FLINT SILICA • DM-SERIES • F-SERIES • FOUNDRY SANDS • FJ-SERIES • H-SERIES • L-SERIES • N-SERIES • NJ SERIES • OK-SERIES • P-SERIES • T-SERIES • HYDRAULIC FRACING SANDS • MIN-U-SIL® Fine Ground Silica • MYSTIC WHITE® • #1 DRY • #1 SPECIAL • PENN SAND® • Q-ROK® • SIL-CO-SIL® Ground Silica • MICROSIL® • Supersil® • MASON SAND • GS SERIES • PER-SPEC

Chemical Name or Synonym:

Silicon Dioxide (SiO₂). Sand, Silica Sand, Quartz, Crystalline Silica, Flint, Ground Silica (flour).

White or tan sand or ground silica with no odor.

1.2. Use of the substance/preparation

Main Applications (non-exhaustive list): abrasives, brick, ceramics, foundry castings, glass, grout, hydraulic frac (proppant) sand, mortar, paint and coatings, silicate chemistry, silicone rubber, thermoset plastics.

1.3. Company / Producer

U.S. Silica Company
8490 Progress Drive, Suite 300
Frederick, MD 21701
U.S.A.
301-682-0600

For all sand & ground silica products:

Active Minerals International, LLC
6 North Park Drive – Suite 105
Hunt Valley, MD 21030
U.S.A.

Contact: Terri Kansler
Telephone: 410-825-2920
T.Kansler@activeminerals.com

1.4. Emergency telephone

(office hours only)

Contact: Terri Kansler
Telephone: 410-825-2920

2. Hazards Identification

Silica sand is not per se hazardous. However, any particles at sizes below 10 micron are respirable and may penetrate the lungs. As the products identified in this safety data sheet may contain more than 10% of particles below 10 micron, the preparation is classified as "harmful" Xn R48/20 according to Directives 67/548/EEC and 1999/45/EC. The mixture is classified as STOT RE 1/ H372/ P260, P285, P501 according to the CLP (Hazard Class/Hazard Statement/Precaution Statements):

Prolonged inhalation of **excessive levels** of respirable crystalline silica dust may cause silicosis, a lung fibrosis. Individuals with silicosis are reported to have an increased risk of lung cancer. Principal symptoms of silicosis are cough and breathlessness. Exposure to dust should be monitored and managed.

Hazardous Decomposition or Byproducts: Silica will dissolve in hydrofluoric acid and produce a corrosive gas – silicon tetrafluoride.

3. Composition / Information on Ingredients

Component / CAS #	Symbol	Risk Phrases	EC #	%
Crystalline Silica (quartz) 14808-60-7			238-878-4	98.7 - 99.9
Per EU 67/548/EEC (DSD),	XN	R48/20		
Per EN 1272/2008 (CLP) Hazard Class / Hazard Statement/ Precaution Statements	STOT RE1	H372 / P260, P285, P501		
Aluminum Oxide 1344-28-1	None	None	215-691-6	<1.1
Iron Oxide 1309-37-1	None	None	215-168-2	<0.1
Titanium Oxide 13463-67-7	None	None	236-675-5	<0.1

4. First Aid Measures

- 4.1. Eye Exposure:**
Wash immediately with plenty of water. If irritation persists, seek medical attention.
- 4.2. Skin Exposure:**
Not applicable
- 4.3. Inhalation:**
No specific first-aid is necessary since the adverse health effects associated with exposure to crystalline silica (quartz) result from chronic exposures. If there is a gross inhalation of crystalline silica (quartz), remove the person immediately to fresh air, give artificial respiration as needed, seek medical attention as needed.
- 4.4. Ingestion:**
Not applicable

5. Fire Fighting Measures

5.1. Fire Hazard Data:

Autoignition: Not Applicable

Flash Point: Not Applicable

Flammability Limits (vol / vol%):	Lower:	Upper:
	Not Applicable	Not Applicable

Extinguishing Media:

Product is not flammable, combustible or explosive. Use extinguishing media appropriate for surrounding fire.

Special Fire Fighting Procedures:

Use self contained breathing apparatus with full face mask.

Unusual Fire and Explosion Hazards:

None

6. Accidental Release Measures

6.1. Personal precautions:

Avoid dust formation. In case of dust exposure, wear protective equipment specified in Section 8 of this Safety Data Sheet.

Environmental precautions: No specific precautions. Discard any product, residue, disposable container or liner in compliance with regulatory requirements.

Methods for cleaning up: Avoid dry sweeping. Use water spraying / flushing or ventilated vacuum cleaning system. Use closed containers.

7. Handling and Storage

7.1. Handling

Avoid dust formation. Do not breathe dust. Use adequate exhaust ventilation and dust collection. Keep airborne dust concentrations below permissible national exposure limits. Do not rely on your sight to determine if dust is in the air. Respirable crystalline silica dust may be in the air without a visible dust cloud. In case of insufficient ventilation, wear a respirator approved for silica dust when using, handling, storing or disposing of this product or bag. Practice good housekeeping. Do not permit dust to collect on walls, floors, sills, ledges, machinery, or equipment. Maintain, clean, and fit test respirators in accordance with EN standards. Maintain and test ventilation and dust collection equipment. Wash or vacuum clothing that has become dusty.

DO NOT USE U.S. SILICA COMPANY MATERIALS FOR SAND BLASTING.

7.2. Storage

Ensure trapping of dust produced during loading and unloading. Keep containers closed and store bags as to avoid accidental bursting.

7.3. Specific uses

Apply safe handling recommendations in Section 7.1.

8. Exposure Controls / Personal Protection

8.1. Exposure limit values

Crystalline Silica	Occupational Exposure Limit
Austria	Maximale Arbeitsplatzkonzentration 0.15/mg/m ³
Belgium	0.1 mg/m ³ VLE (respirable dust)
Bulgaria	0.07 mg/m ³ (OEL (8 h) respirable fraction)
Cyprus	10% of respirable crystalline silica in air sample
Czech Republic	0.1 mg/m ³
Denmark	0.1 mg/m ³ TWA (total); 0.1 mg/m ³ TWA (respirable)
Estonia	0.1 mg/m ³ TWA (respirable dust)
Finland	0.2 mg/m ³ TWA (respirable); 0.2 mg/m ³ TWA (blasting and quarrying, respirable)
France	0.1 mg/m ³ VME (inhalable fraction, listed under silica crystallines). In addition, separate reference value for dust (5 or 25k/Q)
Germany	Previously maximale Arbeitsplatzkonzentration 0.15mg/m ³ . Since 2005 workers health protection system ("Schutzstufenkonzept")
Greece	0.1 mg/m ³
Hungary	0.15 mg/m ³ TWA (respirable)
Ireland	0.05mg/m ³ 2002 Code of practice for Safety Health & Welfare at Work
Italy	0.05 mg/m ³ Associazione Italiana Degli Igienisti Industriali
Latvia	1 mg/m ³ (if silicon dioxide is more than 70%) 2 mg/m ³ (if silicon dioxide is 10 - 70%) 4 mg/m ³ (if silicon dioxide is 2 - 10%)
Lithuania	0.1 mg/m ³ IPRV (respirable fraction), general dust respirable fraction 10 mg/m ³ and alveolar fraction 5 mg/m ³
Luxembourg	0.15 mg/m ³
Malta	None for respirable crystalline silica. In specific situations, Maltese authorities are in practice applying UK reference values.
Netherlands	0.075 mg/m ³ MAC (respirable dust)

Poland	2 mg/m ³ NDS (total inhalable dust, containing >50% free crystalline silica); 0.3 mg/m ³ NDS (respirable dust, containing >50% free crystalline silica); 4.0 mg/m ³ NDS (total inhalable dust, containing 2% to 50% free crystalline silica); 1.0 mg/m ³ NDS (respirable dust, containing 2% to 50% free crystalline silica)
Portugal	0.05 mg/m ³ TWA (respirable fraction)
Romania	0.1 fiber/cm ³ (Quartz - OEL (8 h) respirable rate)
Slovak Republic	10 mg/m ³ TWA (total aerosol) 0.5 mg/m ³ STEL 0.1 mg/m ³ TWA
Slovenia	0.15 mg/m ³ TWA (respirable fraction)
Spain	0.1 mg/m ³ VLA-ED (respirable fraction) 5 or 25 k/Q
Sweden	0.1 mg/m ³ LLV (respirable dust)
United Kingdom	0.1mg/m ³
Turkey	If amount of crystalline silica in respirable dust is less than 5%, then the occupational exposure limit will be accepted as 5 mg/m ³ . If the amount of the crystalline silica in the respirable dust is more than 5% in a workplace, then it is prohibited for such workplace to employ employees for the production.

8.2. Exposure controls

8.2.1. Occupational exposure controls

Engineering Controls:

Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in Section 8.1 of this Safety Data Sheet.

Respiratory Protection

In case of exposure to dust, and in any case if such exposure is above regulatory limits (see above), wear a personal respirator in compliance with national law and European Standard EN 149.

Eye / Face Protection:

If eye contact while using product may be anticipated, wear appropriate safety glasses with side shields or chemical goggles as described by European Standard EN 166.

Skin Protection

Wear chemical resistant gloves (such as latex or neoprene) and protective clothing to minimize skin contact. Substance may have drying effect on skin. Maintain good industrial hygiene. Protection recommended for workers suffering from dermatitis or sensitive skin.

8.2.2. Environmental Exposure Controls

No special requirements. There is no reported ecotoxicity for silica, a naturally occurring substance abundantly present in nature.

9. Physical and Chemical Properties

9.1. General Information

Physical State: White or tan sand: granular, crushed or ground to a powder.
Odor: None

9.2. Important Health, Safety and Environmental Information

pH: 6 - 8
Specific Gravity: 2.65 g/cc
Melting Point: 3110°F/1710°C
Freezing Point: Not Applicable
Boiling Point: 4046°F/2230°C
Flashpoint: Not Applicable
Flammability: Not Applicable
Explosive properties: Not Applicable
Oxidizing properties: contact with powerful oxidizing agents such as fluorine, chlorine trifluoride, and oxygen difluoride may cause fires.
Vapor Pressure: None
Relative Density: Not Applicable
Solubility: Silica will dissolve in hydrofluoric acid and produce a corrosive gas, silicon tetrafluoride
Water Solubility: Insoluble
Percent Volatiles by Volume: Not Applicable
Viscosity: Not Applicable
Vapor density: Not Applicable
Molecular Weight: 60.08
Evaporation rate: Not Applicable

10. Stability and Reactivity

10.1. Chemical Stability:
Stable

10.2. Conditions to Avoid:
Contact with powerful oxidizing agents such as fluorine, chlorine trifluoride, and oxygen difluoride may cause fires

10.3. Materials / Chemicals to Be Avoided:
Contact with powerful oxidizing agents, such as fluorine, chlorine trifluoride and oxygen difluoride, may cause fires.

10.4. Hazardous Decomposition Products:
Silica will dissolve in hydrofluoric acid and produce the corrosive gas silicon tetrafluoride (SiF₄).

10.5. Hazardous Polymerization:
Will not occur.

11. Toxicological Information

The method of exposure to crystalline silica that can lead to the adverse health effects described below is inhalation.

A. SILICOSIS

The major concern is silicosis, caused by the inhalation and retention of respirable crystalline silica dust. Silicosis can exist in several forms, chronic (or ordinary), accelerated, or acute. Chronic or Ordinary Silicosis (often referred to as Simple Silicosis) is the most common form of silicosis, and can occur after many years of exposure to relatively low levels of airborne respirable crystalline silica dust. It is further defined as either simple or complicated silicosis. Simple silicosis is characterized by lung lesions (shown as radiographic opacities) less than 1 centimeter in diameter, primarily in the upper lung zones. Often, simple silicosis is not associated with symptoms, detectable changes in lung function or disability. Simple silicosis may be progressive and may develop into complicated silicosis or progressive massive fibrosis (PMF). Complicated silicosis or PMF is characterized by lung lesions (shown as radiographic opacities) greater than 1 centimeter in diameter. Although there may be no symptoms associated with complicated silicosis or PMF, the symptoms, if present, are shortness of breath, wheezing, cough and sputum production. Complicated silicosis or PMF may be associated with decreased lung function and may be disabling. Advanced complicated silicosis or PMF may lead to death. Advanced complicated silicosis or PMF can result in heart disease secondary to the lung disease (cor pulmonale). Accelerated Silicosis can occur with exposure to high concentrations of respirable crystalline silica over a relatively short period; the lung lesions can appear within five (5) years of initial exposure. Progression can be rapid. Accelerated silicosis is similar to chronic or ordinary silicosis, except that lung lesions appear earlier and progression is more rapid.

Acute Silicosis can occur with exposures to very high concentrations of respirable crystalline silica over a very short time period, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough and weight loss. Acute silicosis is fatal.

B. CANCER

IARC - The International Agency for Research on Cancer ("IARC") concluded that there was "*sufficient evidence* in humans for the carcinogenicity of crystalline silica in the forms of quartz or cristobalite from occupational sources", and that there is "*sufficient evidence* in experimental animals for the carcinogenicity of quartz and cristobalite." The overall IARC evaluation was that "crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is *carcinogenic to humans (Group 1)*." The IARC evaluation noted that "carcinogenicity was not detected in all industrial circumstances studies. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." For further information on the IARC evaluation, see IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 68, "Silica, Some Silicates..." (1997).

The EU Scientific Committee for Occupational Exposure Limits (SCOEL) concluded in June 2002 (SCOEL Sum Doc. 94-final): "The main effect in humans of inhalation of respirable silica dust is silicosis. There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore preventing the onset of silicosis will also reduce the cancer risk."

C. AUTOIMMUNE DISEASES

Several studies have reported excess cases of several autoimmune disorders, -- scleroderma, systemic lupus erythematosus, rheumatoid arthritis -- among silica-exposed workers. For a review of the subject, the following may be consulted: "Occupational Exposure to Crystalline Silica and Autoimmune Disease", Environmental Health Perspectives, Volume 107, Supplement 5, pp. 793-802 (1999); "Occupational Scleroderma", Current Opinion in Rheumatology, Volume 11, pp. 490-494 (1999).

D. TUBERCULOSIS

Individuals with silicosis are at increased risk to develop pulmonary tuberculosis, if exposed to persons with tuberculosis. The following may be consulted for further information: Occupational Lung Disorders, Third Edition, Chapter 12, entitled "Silicosis and Related Diseases", Parkes, W. Raymond (1994); "Risk of pulmonary tuberculosis relative to silicosis and exposure to silica dust in South African gold miners," Occup Environ Med., Volume 55, pp.496-502 (1998).

E. KIDNEY DISEASE

Several studies have reported excess cases of kidney diseases, including end stage renal disease, among silica-exposed workers. For additional information on the subject, the following may be consulted: "Kidney Disease and Silicosis", Nephron, Volume 85, pp. 14-19 (2000).

F. NON-MALIGNANT RESPIRATORY DISEASES

The reader is referred to Section 3.5 of the NIOSH Special Hazard Review cited below, for information concerning the association between exposure to crystalline silica and chronic bronchitis, emphysema and small airways disease. There are studies that disclose an association between dusts found in various mining occupations and non-malignant respiratory diseases, particularly among smokers. It is unclear whether the observed associations exist only with underlying silicosis, only among smokers, or result from exposure to mineral dusts generally (independent of the presence or absence of crystalline silica, or the level of crystalline silica in the dust).

Sources of information:

The ***NIOSH Hazard Review - Occupational Effects of Occupational Exposure to Respirable Crystalline Silica*** published in April 2002 summarizes and discusses the medical and epidemiological literature on the health risks and diseases associated with occupational exposures to respirable crystalline silica. The *NIOSH Hazard Review* should be consulted for additional information, and citations to published studies on health risks and diseases associated with occupational exposure to respirable crystalline silica. The *NIOSH Hazard Review* is available from NIOSH - Publications Dissemination, 4676 Columbia Parkway, Cincinnati, OH 45226, or through the NIOSH web site, www.cdc.gov/niosh/topics/silica, then click on the link "NIOSH Hazard Review: Health Effects of Occupational Exposure to Respirable Crystalline Silica".

12. Ecological Information

12.1. Ecotoxicological Information:

Crystalline silica (quartz) is not known to be ecotoxic; i.e., there are no data that suggests that crystalline silica (quartz) is toxic to birds, fish, invertebrates, microorganisms or plants.

13. Disposal Considerations

13.1. Waste Disposal Method:

Discard any product, residue, disposable container or liner in full compliance with national regulations.

13.2. Container Handling and Disposal:

Dispose of container and unused contents in accordance with national regulations.

14. Transportation Information

Shipping Name:

ADR/RID/IMO/ICAO /US DOT	Proper Shipping Name	Not Regulated
	Hazard Class	Not Regulated
	ID Number	Not Regulated
	Packaging Group	Not Regulated

15. Regulatory Information

Silica sand has no harmonized classification & labeling under Directives 67/548/EEC and 1999/45/EC. Because the respirable fraction is high (10% and more) in ground silica (flour), the preparation is self-classified as Xn (harmful). In such case, the following risk and safety phrases are applicable.

Risk Phrases:

R 48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Safety Phrases:

S 22: Do not breathe dust

S 38: In case of insufficient ventilation, wear suitable respiratory equipment.

Under EC Number 1272/2008 (CLP) regulations, mixtures containing more than 10% crystalline silica, which potentially includes all of the grades listed in the MSDS, there are hazard class, hazard statements and precaution statements:

Hazard Class:

STOT RE1: Specific Target Organ Toxicant, DANGER

Hazard Statement:

H372: Causes damage to lungs through prolonged or repeated exposure via inhalation

Precaution Statements:

P260: Do not breathe dust.

P285: In case of inadequate ventilation wear respiratory protection.

P501: Dispose of contents / containers in accordance with local regulation.

16. Other Information

* For further information on health effects, see Sections 2 and 11 of this Safety Data Sheet.

13 European industry associations and two employee associations concluded on April 25, 2006 an autonomous European Social Dialogue Agreement on "Workers Health Protection through the Good Handling and Use of Crystalline Silica and Products Containing it" which is applicable since October 25, 2006. This Agreement and its annexes provide technical guidance and good handling recommendations for dust prevention. The Agreement and its annexes are available at <http://www.nepsi.eu/>

U. S. Silica Company Disclaimer

The information and recommendations contained herein are based upon data believed to be up-to-date and correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects that may be caused by purchase, resale, use or exposure to our silica. Customers and users of silica must comply with all applicable health and safety laws, regulations, and orders. In particular, they are under an obligation to carry out a risk assessment for the particular work places and to take adequate risk management measures in accordance with the national implementation legislation of EU Directives 89/391 and 98/24.



SAFETY DATA SHEET

Version No:20-01
Issue Date: 03-Dec-2020

SPECTRALOCK® PRO Premium Grout

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name	SPECTRALOCK® Pro Premium Grout- Part A
Recommended use	It is a multi component, high strength epoxy grout, for joints in tile and stone installations. (For professional use).
Manufacturer/ Importer/ Supplier/ Distributor information	Company Name: LATICRETE MIDDLE EAST LLC Address P.O. Box. 86028, Ras Al Khaimah, United Arab Emirates Telephone: +971 7 244 6396

2. HAZARD (s) IDENTIFICATION

Classification	Skin corrosion Skin Sensitization Serious eye damage/eye irritation	Category 1B Category 1 Category 1
Label Element		
Signal Words	Danger	
Hazard Statement(s)	H315- Causes skin irritation H317 -May cause an allergic skin reaction. H318 Causes serious eye irritation. H411-Toxic to aquatic life with long lasting effects.	
Precautionary Statement(s) Prevention	P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.	
Precautionary Statement(s) Response	P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER/doctor	
Precautionary Statement(s) Storage	P403 + P233 Store in a well-ventilated place. Keep container tightly closed.	
Precautionary Statement(s) Disposal	P501-Dispose of contents/container in accordance with local/regional/national/international regulations.	
Other hazards which do not result in classification	None known.	
Supplemental information	Harmful to aquatic life with long lasting effects. Avoid release to the environment	
Emergency overview	IRRITANT. Irritating to eyes, respiratory system and skin.	

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures : Information on ingredients / Hazardous components

Name	CAS No	Content (% by wt.)
Poly[oxy(methyl-1,2-1- 4 ethanediyl)], .alpha.-(2-aminometh yleth yl)-.omega. -(2- amino methy lethoxy)-	9046-10-0	1 - 4
3,6,9-Triazaundecamethylenediamine	112-57-2	< 2
Formaldehyde, polymer with N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]-1,2-ethanediamine, 2,2'-[1,4-butanediylbis(oxymethylene)]bis[oxirane], 4,4'-(1-methylethylidene) bis(4,1-phenyleneoxymethylene)bis[oxirane], reaction products with Bu glycidylether and 1-[[2-(2-aminoethyl) ethyl]amino]-3-phenoxy-2-propanol, acetates (salts)	180583-06-6	> 15



SAFETY DATA SHEET

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4. FIRST-AID MEASURES

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if any discomfort continues
Skin contact	Take off immediately all contaminated clothing. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse. Get medical attention immediately
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately
Ingestion	Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention if any discomfort continues.
Personal protection for first-aid responders	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves
Symptoms caused by exposure	Up to now no symptoms are known
Medical attention and special treatment	Provide general supportive measures and treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing media	
Suitable extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire May generate ammonia gas. May generate toxic nitrogen oxide gases. Use of water may result in the formation of very toxic aqueous solutions. Do not allow run-off from fire fighting to enter drains or water courses.
Specific hazards arising from the chemical	Incomplete combustion may form carbon monoxide. Ammonia gas may be liberated at high temperatures. In case of incomplete combustion an increased formation of oxides of nitrogen (NO _x) is to be expected. Downwind personnel must be evacuated. Burning produces noxious and toxic fumes.
Special protective equipment and precautions for fire fighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Firefighting equipment/instructions	Wear self-contained breathing apparatus for firefighting if necessary. Avoid contact with skin. A face shield should be worn.
General fire hazards	Do not allow run-off from fire fighting to enter drains or water courses. No unusual fire or explosion hazards noted.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	
For non-emergency personnel	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.
For emergency responders	Wearing appropriate protective clothing.
Environmental precautions	Avoid release to the environment. Do not discharge into drains, water courses or onto the ground. Environmental manager must be informed of all major releases
Methods and materials for containment and cleaning up	Large Spills: Pick up with suitable appliance and dispose of. Pack in tightly closed containers for disposal. Small Spills: Pick up with suitable appliance and dispose off.
Other issues relating to spills and releases	Never return spills in original containers for re-use. For waste disposal, see Section 13



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Issue Date: 03-Dec-2020

of the SDS. Clean up in accordance with all applicable regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Use personal protective equipment.
Do not use sodium nitrite or other nitrosating agents in formulations containing this product. Suspected cancer-causing nitrosamines could be formed.
Avoid contact with skin and eyes.
Emergency showers and eye wash stations should be readily accessible.
Adhere to work practice rules established by government regulations.
Avoid contact with eyes.
Hygiene measures: Provide readily accessible eye wash stations and safety showers.
General protective measures: Discard contaminated leather articles.
Provide readily accessible eye wash stations and safety showers.
Wash hands at the end of each work shift and before eating, smoking or using the toilet.
Containers should be stored tightly sealed in a dry place. Do not store near acids.

Conditions for safe storage, including any incompatibilities

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

No Data Available

Occupational exposure limits

No Data Available

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation should be used. Provide eyewash station.

Individual protection measures, for example personal protective equipment (PPE)

Eye/face protection

Wear safety glasses with side shields (or goggles). Face-shield. Wear a full-face respirator, if needed



Skin protection Hand protection

Wear appropriate chemical resistant gloves.



Others

Body protection must be chosen based on level of activity and exposure.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment

Hygiene measures

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants



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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Viscous Liquid
Colour	Yellow to Amber
Odour	Typical
pH	Not applicable
Melting point/ freezing point	Not applicable
Initial boiling point and boiling range	>100°C
Flash point	Not flammable
Evaporation rate	Not applicable
Flammability (solid, gas)	Not flammable
Vapor pressure	Not applicable
Relative density	1.10
Solubility (water)	Dispersible in water
Auto-ignition temperature	Not available

10. STABILITY AND REACTIVITY

Reactivity	Corrosive to certain metals. Copper Aluminum. Zinc.
Chemical stability	Material is stable under normal conditions
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flame
Incompatible materials	CAUTION! N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations. Nitrous acid and other nitrosating agents, Organic acids (i.e. acetic acid, citric acid etc.). Mineral acids. sodium hypochlorite, Oxidizing agents Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces.
Hazardous decomposition products	Nitric acid, Ammonia, Nitrogen oxides (NOx) Nitrogen oxide can react with water vapors to form corrosive nitric acid. Carbon monoxide, Carbon dioxide (CO2) Nitrosamine Chlorine

11. TOXICOLOGICAL INFORMATION

Information on possible routes of exposure	Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquid.
Acute toxicity/ Effects	May cause discomfort if swallowed.
Oral	LD50, Species: Rat, Dose: 2.1 g/kg,
Inhalation	May cause respiratory irritation
Dermal	LD50 Species: Rat, Dose: 2.0 g/kg, No death observed
Eye	Causes eye irritation on direct contact
Sensitization	May cause sensitization by skin contact



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Chronic Toxicity /Effects

Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA
Reproductive toxicity	No classified
Aspiration hazard	Not classified
Other Information	Nil.

12. ECOLOGICAL INFORMATION

Aquatic-toxicity	Harmful to aquatic life with long lasting effects
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Additional information	Do not allow to enter soil, waterways or waste water canal.

13. DISPOSAL CONSIDERATIONS

Disposal methods	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local / regional/ national/ international regulations.
Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Completely emptied packaging can be given for recycling.

14. TRANSPORT INFORMATION

IMDG	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tetraethylenepentamine) Class : 9 Packing group : III
IATA/ ICAO	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tetraethylenepentamine) Class : 9 Packing group : III

15. REGULATORY INFORMATION

Safety, health and environmental regulations	
National regulations	Followed EINECS: All ingredients listed, exempt or notified (ELINCS). TSCA: All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.
International regulations	AICS: All ingredients listed, exempt or notified. IECSC: All ingredients listed or exempt. KECL: All ingredients listed, exempt or notified. PICCS: All ingredients listed, exempt or notified. DSL: All ingredients listed or exempt.

16. OTHER INFORMATION

Issue date	03-December-2020 /JC
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Disclaimer: The information in this (M) SDS was obtained from sources which we believe are reliable but cannot guarantee. Additionally, your use of this information is beyond our control and may be beyond our knowledge. Therefore, the information is provided without any representation or warranty express or implied.

MATERIAL SAFETY DATA SHEET

CONTACT NUMBERS:

1(800) 452-4862

FAX 1-626-333-7694

CHEMTREC (24-hrs): (800) 424-9300



Distributed by:
Laguna Clay Company
14400 Lomitas Ave
City of Industry, CA 91746
1-800-4Laguna
info@lagunaclay.com
www.lagunaclay.com

Section I: Product Information

Identity: **SPODUMENE**

Trade Names: Spodumene
Mixture of naturally occurring silicates and quartz.

Prepared/Revised: 8/2012

Section II: Hazardous Ingredients

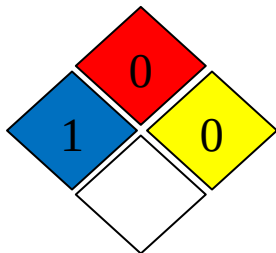
Chemical Name:	CAS #	OSHA PEL	ACGIH TLV	Percent
Spodumene ($\text{LiAl}(\text{SiO}_3)_2$)	1302-37-0	10 mg/m ³	0.05	95
Quartz (SiO_2)	14808-60-7	10 mg/m ³ / %SiO ₂ +2	0.05	<5%

Section III: Physical Data

Boiling Point:	NA	Specific Gravity ($\text{H}_2\text{O}=1$):	3.1
Vapor Pressure (mm/Hg):	NA	Melting Point:	1375C
Vapor Density (Air=1):	NA	Evaporation Rate (Butyl Acetate=1):	NA
Solubility in Water:	< 0.5%		
Appearance and Odor:	White to beige powder, Odorless		

Section IV: Fire and Explosion Hazard Data

Flash Point:	Not combustible
Flammable Limits:	LEL NA UEL NA
Extinguishing Media:	As appropriate for surrounding combustibles.
Special Fire Fighting Procedures:	In the event of fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.
Unusual Fire and Explosion Hazards:	Not combustible.



Section V: Reactivity Data

Stability:	Stable under ordinary conditions of use and storage.
Conditions to Avoid:	None known.
Incompatibility (materials to avoid):	None known.
Hazardous Decomposition or Byproducts:	None known.
Hazardous Polymerization:	Will not occur.

Section VI: Health Hazard Data

Route of Entry:	INHALATION: May cause irritation of mucous membrane if dust is inhaled over a prolonged period of time. Prolonged exposure to silica dust may result in silicosis, a fibrotic lung disease. SKIN: No. INGESTION: Ingestion of mineral compounds may cause abdominal pain and nausea.
Health Hazards (Acute and Chronic):	Respiratory disease may result from prolonged overexposure. Can cause eye irritation.
Carcinogenicity:	NTP: Yes (Silica) IARC Monographs: Yes (Silica)
Signs and Symptoms of Exposure:	Excessive inhalation of dust may result in shortness of breath and reduced pulmonary function. Symptoms of silicosis include impaired pulmonary function and wheezing.
Aggravation of Pre-existing Conditions:	Persons with impaired respiratory function may be more susceptible to the effect of this substance.
Emergency and First Aid Procedures:	IF INHALED, remove to fresh air and seek medical attention for any breathing difficulty. IN CASE OF SKIN CONTACT, wash with soap & water. Seek medical attention if red & irritated. IN CASE OF EYE CONTACT, flush eyes immediately with water for at least 15 minutes. Seek medical attention if irritation persists. IF INGESTED, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Call a physician immediately.

Section VII: Precautions for Safe Handling and Use

Material Release or Spill Precautions:	Should a spill occur, ventilate area. Clean-up personnel require respiratory protection. Recover uncontaminated material for use. Vacuum or sweep remaining material, keeping dust to a minimum.
Waste Disposal Method:	Dispose of un-reclaimable material in a RCRA-approved waste facility.
Handling and Storing Precautions:	Protect containers from damage and keep closed when not in use.
Other Precautions:	Observe good personal hygiene. Wash after handling.

Section VIII: Control Measures

Respiratory Protection:	Use NIOSH approved particulate respirator if dust generation occurs or is anticipated. OSHA standard 1910.134 or ANSI Z88.2-1980 specifications are recommended.
Ventilation:	A system of local and/or general exhaust is recommended to keep employee exposures below the airborne exposure limits. Local exhaust is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.
Protective Gloves:	Yes
Eye Protection:	Safety goggles are recommended.
Other Protective Clothing or Equipment:	Use other protective equipment when necessary in order to avoid prolonged exposure to skin.
Work and Hygienic Practices:	Observe good personal hygiene. Wash after handling.

NYCO MINERALS INC -- NYAD WOLLASTONITE -- 6810-00N043643

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MSDS Safety Information

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FSC: 6810
 MSDS Date: 09/20/1991
 MSDS Num: BSYXN
 LIIN: 00N043643
 Tech Review: 10/02/1995
 Product ID: NYAD WOLLASTONITE
 Responsible Party
 Cage: NYCMI
 Name: NYCO MINERALS INC
 Address: MOUNTAIN VIEW DR
 City: WILLSBORO NY 12996 US
 Info Phone Number: 518-963-4262
 Emergency Phone Number: 518-963-4262
 Review Ind: N

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Contractor Summary

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Cage: NYCMI
 Name: NYCO MINERALS INC
 Address: MOUNTAIN VIEW DR
 City: WILLSBORO NY 12996 US
 Phone: 518-963-4262

=====

Ingredients

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Cas: 13983-17-0
 RTECS #: ZC9750000
 Name: WOLLASTONITE
 % by Wt: >98
 OSHA PEL: N/K (FP N)
 ACGIH TLV: 10 MG/M3 TDUST (MFR)
 Ozone Depleting Chemical: N

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Health Hazards Data

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LD50 LC50 Mixture: NONE SPECIFIED BY MANUFACTURER.
 Route Of Entry Inds - Inhalation: YES
 Skin: NO
 Ingestion: NO
 Carcinogenicity Inds - NTP: NO
 IARC: NO
 OSHA: NO
 Effects of Exposure: INHAL:LONG TERM CUMULATIVE INHALATION OF HEAVY
 CONCENTRATIONS OF WOLLASTONITE MAY CAUSE RESTRICTION OF THE LARGE
 AIRWAYS. INGEST/EYE:NONE KNOWN. SKIN:MAY CAUSE MINOR IRRITATION.
 Explanation Of Carcinogenicity: NOT RELEVANT
 Signs And Symptions Of Overexposure: SEE HEALTH HAZARDS.
 Medical Cond Aggravated By Exposure: NONE KNOWN
 First Aid: INGEST:CALL MD IMMEDIATELY (FP N). INHAL: INHALE FRESH AIR.
 EYE:FLUSH THOROUGHLY FOR AT LEAST 15 MINUTES . IF IRRITATION PERSISTS,
 SEE MD. SKIN:GENTLY WASH W/SOAP & WATER. IF IRRITATION PERSISTS, SEE
 MD.

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Handling and Disposal

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Spill Release Procedures: SWEEP OR SHOVEL & PLACE IN A SUITABLE CONTAINER.

<http://www2.siri.org/msds/f2/bsy/bsyxn.html>

1/11/2006

Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.
Waste Disposal Methods: TO COMPLY W/FEDERAL, STATE & LOCAL REGULATIONS.
Handling And Storage Precautions: KEEP DRY & COOL IN ORIGINAL SHIPPING
CONTAINERS UNTIL USE.
Other Precautions: NONE KNOWN

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Fire and Explosion Hazard Information

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Flash Point Text: NONE
Lower Limits: NONE
Upper Limits: NONE
Extinguishing Media: MEDIA SUITABLE FOR SURROUNDING FIRE (FP N).
Fire Fighting Procedures: USE NIOSH/MSHA APPROVED SCBA & FULL PROTECTIVE
EQUIPMENT (FP N).

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Control Measures

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Respiratory Protection: USE OF A NIOSH/MSHA APPROVED RESPIRATOR FOR
NUISANCE DUST IS RECOMMENDED.
Ventilation: MECHANICAL VENTILATION IS RECOMMENDED TO MAINTAIN A DUST-FREE
WORK PLACE.
Protective Gloves: IMPERVIOUS GLOVES (FP N).
Eye Protection: ANSI APPRVD CHEM WORKER GOGGLES (FP N).
Other Protective Equipment: PROTECTION OF SKIN FROM EXPOSURE IS
RECOMMENDED.
Work Hygienic Practices: NONE SPECIFIED BY MANUFACTURER.
Supplemental Safety and Health: (LEVIE) NOTES THAT THIS MATERIAL IS
CLASSIFIED AS IARC-3(INADEQUATE EVIDENCE-HUMAN).

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Physical/Chemical Properties

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M.P/F.P Text: 2804F,1540C
Spec Gravity: 2.9
Solubility in Water: 0.01 GM/100CC.
Appearance and Odor: WHITE, ODORLESS POWDER.

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Reactivity Data

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Stability Indicator: YES
Stability Condition To Avoid: NONE KNOWN
Materials To Avoid: NONE SPECIFIED BY MANUFACTURER.
Hazardous Decomposition Products: NO HAZARDOUS PRODUCTS.
Hazardous Polymerization Indicator: NO
Conditions To Avoid Polymerization: NOT RELEVANT

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Toxicological Information

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Ecological Information

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MSDS Transport Information

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Regulatory Information

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Other Information

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HAZCOM Label

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Product ID: NYAD WOLLASTONITE
Cage: NYCM I
Company Name: NYCO MINERALS INC
Street: MOUNTAIN VIEW DR
City: WILLSBORO NY
Zipcode: 12996 US
Health Emergency Phone: 518-963-4262
Date Of Label Review: 09/09/1993
Label Date: 09/09/1993
Chronic Hazard IND: N
Eye Protection IND: YES
Skin Protection IND: YES
Signal Word: CAUTION
Respiratory Protection IND: YES
Health Hazard: Slight
Contact Hazard: Slight
Fire Hazard: None
Reactivity Hazard: None
Hazard And Precautions: KEEP DRY & COOL IN ORIGINAL CONTAINERS UNTIL USE.
ACUTE:INHAL:LONG TERM CUMULATIVE INHALATION OF HEAVY CONCENTRATIONS OF
WOLLASTONITE MAY CAUSE RESTRICTION OF THE LARGE AIRWAYS. INGEST/EYE:NONE
KNOWN. SKIN:MAY CAUSE MINOR IRRITATION. CHRONIC:NONE LISTED BY
MANUFACTURER.

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seek competent professional advice to verify and assume responsibility
for the suitability of this information to their particular situation
regardless of similarity to a corresponding Department of Defense or
other government situation.



SAFETY DATA SHEET

Issue Date 01/01/15

Revision Date 02/10/21

Version 3

1 IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY UNDERTAKING

Product Name: **World's Best Graffiti Coating**

Company: Urban Restoration Group US Inc.
5439 San Fernando Rd. W
Los Angeles CA 90039

24-Hour Emergency Telephone Number:
(PERS) Professional Emergency Resource Services USA 1-800-633-8253 (Int'l 1-801-629-0667)
Contract number: 8400

Phone Number: 1- 818- 247- 2555
Fax: 1- 818- 247- 2515

Intended Use: All-weather, long-term SACRIFICIAL protection, formulated for most types of surfaces. Provides durable protection against spray paint, marker / felt tip pens, pollution and grime. Also provides protection against salt and sea type moisture.

2 HAZARDS IDENTIFICATION

Classification of the substance or mixture: Eye irritation, hazard Category 2

Signal Word: WARNING

Hazard Statement: H319 Causes serious eye irritation.



Precautionary Statements: P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention.

3 COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients	CAS Number	Percentage Range
Alcohols, C12-15, branched and linear, ethoxylated	106232-83-1	<1%
(Z)-9-Octadecen-1-ol ethoxylated	9004-98-2	<0.5%
Alcohols, C16-18, ethoxylated	68439-49-6	<0.5%
Sodium hydroxide	1310-73-2	<0.5%
Balance – Trade Secret	The complete specific chemical identity has been withheld as a trade secret. Other ingredients are not known to significantly contribute to the hazard classification.	

4 FIRST-AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.
NEVER induce swallowing by an unconscious person.

Inhalation:	No significant risk
Skin contact:	Rinse with water
Eye contact:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Ingestion:	Drink a couple of glasses of water. If symptoms persist, call a physician

5 FIRE-FIGHTING MEASURES

Extinguishing Media

Fire can be extinguished using: Water

Special hazards arising from the substance or mixture: Not applicable

Protective Equipment for firefighting: In the event of fire, wear self contained breathing apparatus. Wear suitable protective clothing

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions: Not applicable

Environmental Precautions: Prevent large discharges to drains. Bank up and collect

Methods for Cleaning Up: Only large-scale discharges can constitute a risk. Collect spillages as soon as possible by using an absorbent material. Rinse clean with plenty of water. Consider the risk of slipping

7 HANDLING AND STORAGE

Handling: Do not get in eyes. Wash hands before eating, drinking, or smoking. Ensure good industrial hygiene

Storage: The package must be stored sealed and in a cool location.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits:

ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
106232-83-1	N/A	N/A	N/A	N/A	N/A
9004-98-2	N/A	N/A	N/A	N/A	N/A
68439-49-6	N/A	N/A	N/A	N/A	N/A
1310-73-2	2 mg / m ³	N/A	C	N/A	N/A

Eye / face protection: Wear protective goggles if there is a risk of direct contact or splashes.
 Safety gloves: No special safety precautions are required.
 Other skin protection: Remove and wash contaminated clothing before re-use.
 Respiratory protection: Breathing protection is not normally required.

9 PHYSICAL AND CHEMICAL PROPERTIES

Typical values – does not constitute a specification

Appearance / Physical State	White / Liquid
Odor	Slight odor
Boiling point/range	< 100°C / 212°F
Flash Point (Abel closed cup)	Not applicable
PH	8.0
Flammability auto ignition temp.	Not applicable
Melting point / Freezing point	80 - 85 °C / 176 - 185°F
Explosive properties	Not applicable
Oxidizing properties	Not applicable
Vapor pressure (mbar @ 20°C)	Not applicable
Relative Density (@15.5°C)	Not applicable
Solubility in water	100%
Solubility in fat / solvent	Not applicable
Partition coefficient (log Pow)	Not applicable
Auto – Ignition temperature	Not applicable
Decomposition temperature	Not applicable
Viscosity (mPa.s @ 20°C)	Not applicable
Evaporation rate	Not applicable

10 STABILITY AND REACTIVITY

Reactivity:	Not applicable
Stability:	Not applicable
Conditions to avoid:	Avoid extreme temperatures during storage.
Materials to avoid:	Not applicable
Hazardous decomposition products:	Not applicable

11 TOXICOLOGICAL INFORMATION

The product has a low toxicity, which means that the risk of injury during normal handling is small.

Information on toxicological effects

Acute Toxicity: Not applicable

-oral
-inhalation
-dermal

Corrosivity / Irritation:

-eye
-skin
-respiratory tract

Causes serious eye irritation

Sensitization:

-skin
-respiratory

No evidence of sensitization effects

No evidence of sensitization effects

12 ECOLOGICAL INFORMATION

Toxicity The product has a low level of toxicity to aquatic organisms.

Acute Fish Toxicity Sodium Hydroxide (LC50): (96 h) 45 mg/l

Mixtures -

Persistence and degradability This product is easily biodegradable.

Bioaccumulative potential Bio-accumulation is unlikely.

Mobility in soil Not applicable.

Results of PBT and vPvB assessment No data available.

Other adverse effects No data available.

13 DISPOSAL CONSIDERATIONS

Waste treatment methods: Do not pour into drains, sewers or waterways.

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with Federal, State, and Local regulations.

Appropriate packaging:

Dispose of in original packaging or over pack in larger container
such as an appropriate 55 gal drum.
Give to a certified licensed disposal contractor.

14 TRANSPORT INFORMATION

UN number	Not regulated
UN proper shipping name	Not applicable
Transport hazard class	Not applicable
Packing group	Not applicable
Environmental hazards	Not applicable
Special precautions for user	Not applicable
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	

15 REGULATORY INFORMATION

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 (PROPOSITION 65) N/A

This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins under California Proposition 65 at levels which would be subject to the proposition.

Any waste generated must comply with Federal EPA and California DTSC regulations pertaining to proper hazardous waste disposal. Additionally comply with all Federal, State and Local regulations.

16 OTHER INFORMATION

This product safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to ensure safe workplace operations.

The information identified in this Safety Data Sheet is true and correct based on best knowledge of information available.

Revision Date: 02/10/21



Conservation Review Form

CITY OF AUSTIN AIPP

Exhibit F

Information captured in this form will help expedite the conservation review process, which aims to address the following considerations:

- 1) **Durability of Materials**
- 2) **Appropriateness of Fabrication Methods**
- 3) **Relationship to Site/Context**
- 4) **Installation and Site Preparation**
- 5) **Maintenance Needs**

Artist(s):
Phone:
Email:
Title of AIPP Project:
Title of Artwork:
AIPP Project Manager:
Date:

Assuming best maintenance practices, what is the life expectancy of this work?

50 years

List ALL materials and components to be used in the creation of this piece (be specific):

EPK Kaolin (Edgar Clay) Standard 420 Sculpture Clay
John's Cone 10x11 glaze
(Custer Feldspar, Spodumene, Silica, Talc, Kaolin, Ball clay, Frit 3134, Frit 3195, Wollastonite)
Mason Color Works Mason Stains: Alpine Rose, Crimson, Vivid Blue, Delphinium Blue
Laticrete Multimax Lite Mortar+ Laticrete Spectralock PRO Premium Grout

Describe any coatings or sealants to be used (be specific):

World's Best Graffiti Coating Sacrificial Wax Layer

Provide contact information for the fabricator(s) and a description of their services on this project:

Dana Perrotti, (512) 806-8211
Sculpt+ Fabricate Ceramic Tiles



Conservation Review Form

CITY OF AUSTIN AIPP

Describe the methods and/or processes used in fabrication, in order of their use in the artwork:

Master relief tiles are carved into clay and a plaster mold is cast. Stoneware clay is pounded into the mold and released. Tiles dry flat for 1 week. Tiles are bisque fired to cone 06. Tiles are cleaned, glazed and fired to cone 6.

Describe the artwork site and installation method:

Site: Cinderblock entrance wall at Comal Pocket Park (along Comal Street).
Tiles will be installed along wall with non-sag mortar.
An epoxy-based grout will be applied (does not require sealer)
Anti-graffiti wax will be final layer.

Describe any required maintenance procedures and/or products:

Anti-graffiti wax layer needs to be removed and reapplied if site is vandalized.

Attach all that apply:

- | | | |
|---|---|--|
| Y | N | Architect's or Engineer's preliminary drawings |
| Y | N | Material samples |
| Y | N | Images of site or site drawings |
| Y | N | Manufacturer specs or Material Data Safety Sheets (MSDS) for all commercial products |



Artist Maintenance Questionnaire
CITY OF AUSTIN-- AIPP

Information captured in this questionnaire will be filed to help ensure the proper care and preservation of the artwork. You may reference the Conservation Review Form as you complete this questionnaire. Please be as specific as possible. *(Attach additional sheets as needed)*

(This section to be completed by AIPP staff)

Acc. #:

Artist: Dana Perrotti

Title: Milagros

Date created: TBD 2024

Medium: Ceramic Tiles

Dimensions: South Wall: 23.25" x 293.5" North Wall: 23.25" x 183.75"

Date of Acq:

General Information:

General description of artwork:

Ceramic mosaic relief made of Standard 420 Sculpture Clay and John's Cone 10x11 glaze. 114 tiles create the full mosaic utilizing 8 colors. The Milagros relief tiles are 7.5x7.5 each with a 1/8" grout border.

Do you have similar work (materials and techniques) in other collections? If so please provide the name/owner of the collections.

Materials and techniques:

Please list ALL final materials used in the creation of the piece:

See Attached Documents

Please list (or attach) manufacturer info for all products used in the final work:

See Attached documents

If cast or commercially fabricated, please provide information about the factory or foundry:

N/A

Please describe the reasons for selecting the final materials used:

Please describe the method of creating the piece (describe special tools, methods, order of application, etc.):

Master relief tiles are carved into clay and a plaster mold is cast. Stoneware clay is pounded into the mold and released. Tiles dry flat for 1 week. Tiles are bisque fired to cone 06. Tiles are cleaned, glazed and fired to cone 6.

Please describe any coatings used:

Anti-graffiti wax layer coating will be added to protect the tiles from surface vandalism. Can be removed and recoated as necessary.

Please provide samples of materials, or documentation of materials and techniques employed:

Samples attached (Circle one) **YES** **NO**

Please describe any special needs (electricity, water, etc) or instructions for the installation of this piece:

N/A

Please describe any media components used in this piece. Please complete attached Media Checklist.

N/A

Preservation:

Please share any opinions or recommendations regarding preventative preservation treatments.

Anti-graffiti wax layer coating will be added to protect the tiles from surface vandalism. Can be removed and recoated as necessary.

Please describe the extent to which changes in the appearance of the piece (as a result of aging and wear-and-tear) are intended/ accepted. How would you define damage?

The tiles are expected to last 50 years. The glaze has been tested to prevent crazing or cracking. The colors will gradually fade after many years of UV exposure from the sun but it will be minimal and inline with the existing mosaic work on site.

Please share your opinions on interventions; the condition at which an intervention should be considered; the extent to which the intervention is intended/ accepted:

Though unlikely, if a tile needs to be replaced, a new tile can be cast and set into the mural.

Please list the frequency of cleaning or care needed, with specific techniques and/or products to be used. Please be detailed in the brand name or manufacturers' specifications of products you would recommend, as well as step-by-step instructions for care.

Spray down the wall once a year with a hose to wash away loose dirt and debris. Do not wash with a power washer.

Signature

Date

BUDGET

Artist Design + Project Management Fee (20%): \$8600

Fabrication:

Studio Rental Fees– Studio \$300x6=\$1800

Kiln Firings \$2030 Fabrication of Ceramic tiles:

(Sculpt Masters/Make Molds/Press Molds/Glaze/Fire)- \$14,600

Community Outreach Workshops: \$200/hr (instructing time only–prep included).

Three workshops @ 4 hours total = \$750

Art Storage–\$505

TOTAL –\$19685

Materials + Supplies:

2000 lbs Standard 420 Stoneware + Freight–\$1825 Glaze Materials (Dry) \$900

Plaster \$450

Tile Setters \$450

Thin-set \$500

Grout \$300

Anti-graffiti sealant \$950

Misc (Cottle Boards/Oil Soap; Tools/Materials for workshops; Buckets for glazes; Trowels; Cleaning Supplies; Wire Racks; Bubble wrap/Corrugated Cardboard/Boxes)--\$1250

TOTAL–\$5460

Installation: \$3000 Insurance:

General Liability & Fine Arts

Floater: \$500 Auto Liability: \$600

TOTAL-\$1100

Photography and Documentation of work: \$1000 Contingency (8%):

\$3440

TOTAL \$43,000



Comal Pocket Park Art in Public Places Project

Schedule

Updated: January 10, 2024

2023

February

- Design contract executed
- Kickoff Meeting

March

- Community Engagement begins (*Main engagement will be during fabrication for D. Perrotti*)

March – April

- Concept and Initial Design

May

- Mid-Design review and approval

September

- Final Design approval – AIPP Panel (Sept. 4, 2023)
- Final Design approval – Arts Commission (Sept. 18, 2023)

August – October

- Fabrication Begins

2024

January

- Modified Final Design approval– AIPP Panel (Jan. 8, 2023)
- Modified Final Design approval – Arts Commission (Jan. 29, 2023)

March

- Fabrication Complete
- Installation begins on-site

May

- Anticipated project completion based on PARD construction schedule