
MATERIAL SAFETY DATA SHEET

Identity:

Art Glaze, Leaded, Series 400 to 429 (except #423)
Matt Glaze, Leaded, Series 600 to 610
Specialty Glaze, Leaded #4535, 4536, 4547, 701, 702
Gloss Glaze, Leaded #143, 145, 146, 172, 178, 1000

Section I

Manufacturer's Name

Western Ceramic Supply

Address

948 Washington Street
San Carlos, CA 94070

HMIS Codes

Health	3*	Reactivity	0
Fire	0	Protective Equip	F
(If Spraying)			

Emergency Telephone Number

650-592-2333

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650-592-2333

Date Prepared

April 10, 2008

Revision

Prepared By

J. Dunlavy

*Chronic potential

Section II

Hazardous Ingredients

<u>Components</u>	<u>OSHA PEL</u>	<u>ACGIN TLV</u>
Lead Compounds*, as Pb	0.05mg/m ³	0.15mg/ m ³
Manganese Compounds, as Mn	N/A	0.2mg/ m ³
Nickel Compounds, (SARA 313) Carcinogenic	NE	0.1mg/ m ³
Copper Compounds, as Cu	1. 0mg/m ³	1.0mg/ m ³
Molybdenum Oxide	5.0 (Soluble) 15 (Insoluble)	0.5mg/ m ³ 10.0mg/ m ³ (Inhalable) 3.0mg/ m ³ (Respirable)
Fluorides*, as F	2.5mg/m ³	2.5mg/m ³
Cobalt Compounds*, (SARA 313) Carcinogenic	0.1+	0.2mg/ m ³

*Note: Frit is a fused silicate glass substance. The components of this glass product listed are from the inventory of potentially hazardous substances referenced by FED/OSHA in 29 CFR 1910-1200.

Other Information

Frits are produced from the chemical reactions, which occur during the high temperature smelting of various raw materials to form a molten glass. This glass is rapidly cooled and then ground to produce powdered structure of the frit. The lead listed for this product is incorporated into the glass structure of the frit, chemically reacted in the form of silicates of other essentially insoluble complexes. Exposure to the hazardous ingredient dissolves out of the glass. Because of the chemical stability of frit and its resistance to attack by acids or alkali, this is anticipated to occur very slowly.

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

<u>Component</u>	<u>CAS #</u>	<u>Percent Present</u>
Lead compounds*	65997-18-4	Up to 36% (as PbO) ^(a)
Manganese Compounds	7439-96-5	Up to 9% ^{(c) (d)}
Nickel Compounds	12607-70-4	Up to 2% ^(d)
Copper Compounds	1317-38-0	Up to 8% ^(b)
Molybdenum Oxide	1313-27-5	Up to 5% ^(e)
Cobalt Compounds*	1308-06-1	Up to 5% ^(f)

- (a) The percent reported is based on the theoretical composition of this frit.
- (b) Used in Leaded Glaze #4535, 4536, 4547, 603, 609, 400, 405, 406, 417-420, 425, 428, 145
- (c) Used in Leaded Glaze #417, 419
- (d) Used in Leaded Glaze #4535 4547
- (e) Used in Leaded Glaze #701, 702
- (f) Used in Leaded Glaze #416

While existing in theory, the component(s) mentioned are only present as part of FRIT (CAS#65997-18-4).

Section III Physical Data

Boiling Point, (DEG°F) 212° F	Vapor Pressure, (MM HG.) N/A
Melting Point, (DEG°F) 1800° F	Vapor Density (AIR=1) N/A
Specific Gravity (Water=1): 2.5 – 3.0	Water Solubility, % Insoluble
Appearance and Odor Colored Liquid, Odorless	Freezing Point N/A
PH N/A	Evaporation Rate (Butyl Acetate=1) N/A

Section IV
Fire and Explosion Hazard Data

Flash Point

N/A

Flammable Limits

LEL

N/A

UEL

N/A

Extinguishing Media

N/A

Special Fire Fighting Procedures

None. Will not burn.

Unusual Fire and Explosion Hazards

None.

Section V
Reactivity Data

Stability:

Unstable

Stable X

Conditions to Avoid

N/A

Incompatibility (Materials to Avoid)

N/A

Hazardous Decomposition or Byproducts

N/A

Hazardous Polymerization: May Occur

Will Not Occur X

Conditions to Avoid

N/A

Section VI
Health Hazard Data

Routes of Entry

Inhalation? Yes

Skin? No

Ingestion? Yes

Health Hazards, Lead (Acute and Chronic)

Overexposure to lead may cause nervous system, kidney, or bone marrow damage or harm to the developing fetus.

Carcinogenicity

NTP? No

IARC Monographs? No

OSHA Regulated? No

Signs and Symptoms of Exposure

Symptoms of overexposure to lead includes weight loss, stomach cramps, loss of coordination, joint and muscle pains.

Health Hazards, Manganese (Acute and Chronic)

Overexposure to manganese may cause central nervous system damage.

Carcinogenicity

NTP? No IARC Monographs? No OSHA Regulated? No

Signs and Symptoms of Exposure

Symptoms of overexposure to manganese begins with languor and sleepiness, followed by weakness in the legs and the development of stolid, mask-like faces. Muscular twitching, and slight increase in tendon reflexes, ankle and patellar clonus, and a typical Parkinsonian slapping gate.

Health Hazards, Nickel (Acute and Chronic)

Overexposure to nickel may cause chronic pulmonary disorders. Nickel and certain nickel compounds are considered carcinogenic and noted for producing nasal and lung cancer.

Carcinogenicity

Nickel and nickel compounds are chemicals known to the State of California to cause cancer.

Signs and Symptoms of Exposure

Symptoms of excessive inhalation include headaches, dizziness, and difficult breathing. Nickel is a contact allergen and sensitizer and may cause dermatitis in sensitive individuals (nickel itch).

Health Hazards, Copper (Acute and Chronic)

Chronic exposure to copper may cause discoloration of the skin of hair, blood and liver damage, ulceration and perforation of nasal septum, runny nose, metallic taste, and atrophic changes and irritation of the mucous membranes. Prolonged or repeated skin contact may cause dermatitis in sensitive individuals.

Carcinogenicity

NTP? No IARC Monographs? No OSHA Regulated? No

Signs and Symptoms of Exposure

Overexposure to excessive amounts copper via inhalation or ingestion, may cause capillary damage, headache, cold sweat, weak pulse, kidney and liver damage, central nervous system excitation followed by depression, jaundice convulsions, blood effects, paralysis and coma. Death may result from shock or renal failure.

Health Hazards, Molybdenum (Acute and Chronic)

No specific information found. Molybdenum is rapidly excreted from the body. Persons exposed for long periods of time may suffer from anemia.

Carcinogenicity

NTP? No IARC Monographs? No OSHA Regulated? No

Signs and Symptoms of Exposure

Toxic material. Large doses can cause severe distress, cramping, vomiting, and hypertension. Cause irritation to the skin; symptoms include redness, itching and pain. Causes rash that is difficult to heal. Inhalation may cause pulmonary disorders.

Health Hazards, Cobalt (Acute and Chronic)

Overexposure to Cobalt may cause serious respiratory illness. There are references in literature associating cobalt with interstitial fibrosis, a disease which can be fatal. Ingestion of significant amounts of soluble cobalt salts has been reported to have the potential for causing blood, heart, thyroid and pancreas damage

Carcinogenicity

Cobalt and cobalt compounds are chemicals known to the State of California to cause cancer.

Signs and Symptoms of Exposure

Symptoms of overexposure to cobalt may cause sensitization by inhalation or skin contact. Sensitized persons may develop wheezing and shortness of breath. Can also cause an allergic skin reaction in some individuals.

Medical Conditions Generally Aggravated by Exposure to Glaze

Abrasive, can scratch eyes. Dust or mist from spray may irritate respiratory tract. Skin contact may produce irritation in sensitive individuals.

Emergency and First Aid Procedures

Eye Contact:	Flush with water at least 15 minutes.
Skin Contact:	Wash with soap and water.
Inhalation:	Remove victim to fresh air and contact physician.
Ingestion:	Contact poison control center.

Section VII

Precautions for Safe Handling

Steps to be Taken in Case Material is Released or Spilled

Clean up properly with paper towels and a wet sponge

Waste Disposal Method

Follow Federal, State and Local regulations for disposal.

Precautions to be Taken in Handling and Storing

When using, do not eat, drink or smoke. Wash hands immediately after use. Keep sealed. Keep out of reach of children.

Other Precautions

Avoid using if pregnant or contemplating pregnancy.

Section VIII **Control Measures**

Respiratory Protection (Specify Type)

Use NIOSH approved dust and mist respirator for lead such as 3M 8710 or equivalent (if spraying).

Ventilation

Local Exhaust

Recommended

Mechanical (General)

Recommended when spraying

Special

Use respirator when spraying

Other

None

Protective Gloves

No

Eye Protection

Yes

Other Protective Clothing or Equipment

If in the glaze form and applying by spray, use spray booth and respiratory. Clean spray booth filters often.

Work/Hygienic Practices

Wear protective clothing that is removed before eating, drinking, smoking, or leaving work. Wash thoroughly, immediately after spraying. If glaze spraying regular blood lead level testing is advisable.

Section IX **Additional Information**

CALIFORNIA Proposition 65 WARNING: This product contains chemicals know to the State of California to cause cancer, birth defects or other reproductive harm.

Conforms to
ASTM D-4236



"Products bearing the Caution Label are certified to be properly labeled in a program of toxicological evaluation by a nationally recognized toxicologist. The products are certified by the toxicologist to be labeled in accordance with the chronic hazard labeling standard ASTM D-4236"

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