

9/12/2008

**MATERIAL SAFETY DATA SHEET**



PRODUCT / MATERIAL: GLAZE  
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**SECTION I - PRODUCT INFORMATION**

TRADE NAME: MS54  
SYNONYM: EMERAUDE  
CHEMICAL FAMILY: Ceramic Blend

**SECTION II - HAZARDOUS INGREDIENTS**

INGREDIENT NAME	Maximum Percent	CAS NUMBER	OSHA PEL TWA: (mg/m3)	NIOSH REL TWA: (mg/m3)	ACGIH TLV TWA: (mg/m3)
Barium or Barium Compounds	4	7440-39-3	0.5	0.5	0.5
Calcium Carbonate	7	1317-65-3	5	5	10
Copper or Copper Compounds	3	7440-50-8	0.1		0.2
Silica, Crystalline (Quartz)	20	14808-60-7	10 mg/m3 / %SiO <sub>2</sub> + 2	0.05	0.05
Tin or Tin Compounds	2	7440-31-5	2	2	
Titanium Dioxide	6	13463-67-7	15		10
Zinc or Zinc Compounds	4	7440-66-6	5	5	5

**SECTION III - PHYSICAL DATA**

BOILING POINT (°F) Not Applicable  
VAPOR PRESSURE Not Applicable  
VAPOR DENSITY Not Applicable  
SOLUBILITY IN WATER Insoluble  
SPECIFIC GRAVITY 1.7 – 3.7  
PERCENT VOLATILE BY WEIGHT 0  
EVAPORATION RATE 0  
APPEARANCE AND ODOR Color varies between moist and dry state; no odor.

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT Not Flammable  
EXTINGUISHING MEDIA Water  
UNUSUAL FIRE OR EXPLOSION HAZARDS None  
SPECIAL FIRE FIGHTING PROCEDURES None

**SECTION V - REACTIVITY DATA**

STABILITY FACTOR Product is stable.  
INCOMPATIBILITY None  
HAZARDOUS DECOMPOSITION PRODUCTS None. Hazardous polymerization will not occur.  
CONDITIONS TO AVOID Inhalation of dust.

## SECTION VI - HEALTH HAZARD DATA

### ◆ Barium or Barium Compounds

Chronic Toxicity: Chronic overexposure may lead to varying degrees of paralysis of the extremities. A condition known as "Baritosis" will be observed (x-ray of lungs will be influenced). Symptoms of overexposure will disappear with time as the body eliminates Barium.

### ◆ Calcium Carbonate

Overexposure may result in irritation to eyes, skin and respiratory system. Chronic exposure may result in hypercalcemia, alkalosis, and renal impairment. Animal studies suggest that inhalation may enhance susceptibility to respiratory infection.

### ◆ Copper or Copper Compounds

Overexposure can cause nausea, chills, diarrhea. May cause respiratory irritation, skin irritation (oxide pox), fever, eye irritation with redness, pain, and conjunctivitis; preexisting lung diseases may be aggravated by exposure. Could result in respiratory disease if over-exposed on a chronic basis.

### ◆ Silica, Crystalline (Quartz)

A single exposure will not result in serious adverse health effects. Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs. Silicosis may be progressive; it may lead to disability and death. Crystalline silica (quartz) inhaled from occupational sources is classified as carcinogenic to humans. There are some studies that show excess numbers of cases of scleroderma and other connective tissue disorders in workers exposed to respirable crystalline silica. Silicosis increases the risk of tuberculosis. There are some studies that show an increased incidence of chronic kidney disease and end-stage renal disease in workers exposed to respirable crystalline silica.

### ◆ Tin or Tin Compounds

Chronic exposure to Tin Oxide fumes or dust may result in Stannosis, a form of Pneumoconiosis.

### ◆ Titanium Dioxide

NIOSH has identified titanium dioxide as a potential occupational carcinogen.

### ◆ Zinc or Zinc Compounds

May cause skin irritation if in contact for extended periods of time.

PRIMARY ROUTES OF ENTRY:	Inhalation (dry form only), ingestion and dermal.
SUMMARY OF RISKS:	Individuals with a lung disease/condition (e.g.: bronchitis, emphysema, chronic pulmonary disease) can be aggravated by exposure.
EMERGENCY FIRST AID:	No specific first aid is necessary since the adverse health effects associated with this compound result from chronic exposures.
Eye Contact	May be an irritant, flush eyes with generous amounts of water for at least 15 minutes; call a physician if irritation persists.
Skin Contact	May cause local dermatitis, which is relieved when removed.
Ingestion	Toxicity due to ingestion is low.
Inhalation	Remove to fresh air, call a physician if irritation due to inhalation persists.

Physician's Note            None.

**SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE**

Spills or Release Procedure            Follow normal clean-up procedures. Care should be taken to avoid causing dust to become airborne. Vacuum or use wet clean-up techniques.

Waste Disposal Procedure            Dispose material in accordance with Federal, State, and Local regulations.

**SECTION VIII - CONTROL MEASURES**

Provide adequate ventilation to keep dust or vapor concentrations below acceptable exposure limits. Use gloves as needed for handling material containers. Wear safety glasses when needed. Appropriate respiratory protection may be required to protect from certain dusts. Respirators must be selected and used in accordance with OSHA Subpart 1 of (29 CFR 1910.134).

**SECTION IX - TOXICOLOGICAL INFORMATION**

This product (and all of it's components) is in compliance with the U.S. EPA 15 U.S. C.2604 regulation.

This product is certified as NON-TOXIC, and conforms to ASTM-D4236 and C-1023 under the federal Labeling of Hazardous Art Materials Act (LHAMA). Specific Toxicology information on materials is available upon request.

**SECTION X - REGULATORY**

This product may contain materials that are reportable under Section 313 of the Emergency Planning and Community Right-To-Know Act (Superfund Amendments and Reauthorization Act – SARA), and 40 CFR Part 372.

SARA Title III Data:

Barium or Barium Compounds	<	4	%
Copper or Copper Compounds	<	3	%
Zinc or Zinc Compounds	<	4	%

These levels are "typical quantities" and may change slightly with different lots.

THIS PRODUCT CONTAINS SUBSTANCES REGULATED UNDER CALIFORNIA'S SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65).

**SECTION XI - DISCLAIMER**

The information provided in this MSDS document has been provided to Laguna Clay Company by its material suppliers and is represented by those suppliers as accurate and reliable.

Laguna Clay Company is not liable for injury, loss, or damage, direct or consequential, arising out of the use or inability to properly use this product. This product is intended only for use in traditional ceramic applications.

This MSDS conforms to the ASTM D-4236 and C-1023 requirements defined by LHAMA, the Federal Labeling of Hazardous Art Materials Act. LHAMA was developed by the American Society of Testing and Materials (ASTM) to ensure the proper labeling of art materials.