

# MSDS Sheet #16 Ceramic Glazes Lead & Copper Bearing

## SECTION 1: CHEMICAL PRODUCT AND COMPANY INFORMATION

Prepared: December 6, 2006

Supersedes: All previous

Manufacturer: Mayco Colors

Division of Coloramics, LLC

4077 Weaver Court South

Hilliard, Ohio 43026

United States of America

Distributor Contacts:

USA \_\_\_\_\_ Local Phone \_\_\_\_\_

EC \_\_\_\_\_ Local Phone \_\_\_\_\_

Australia \_\_\_\_\_ Local Phone \_\_\_\_\_

IN CASE OF EMERGENCY PLEASE CONTACT YOUR LOCAL POISON CONTROL CENTER

Prepared by: MSDS department

Information Telephone Number: 614-876-1171

## Ceramic Glaze (s): Lead and Copper Bearing

Art Glazes AG-224, AG-226, AG-400, AG-405, AG-410, AG-420, AG-605

Exotic Glazes E-810, E-824, E-853, E-881, E-962, E-964, E-966, E-967, E-970

Jungle Gem Crystal  
Glazes CG-701, CG-703, CG-704, CG-706, CG-707, CG-708, CG-713, CG-717,  
CG-720, CG-780, CG-789, CG-932

## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredients      | CAS        | ACGIH<br>TLV | OSHA<br>PEL   |
|------------------|------------|--------------|---------------|
| Leaded Frit      | 65997-18-4 | Lead 15mg/m3 | Lead .05mg/m3 |
| Alumina Silicate | 1352-58-7  | NA           | NA            |
| Bentonite        | 1302-78-9  | NA           | NA            |
| Water            | 7732-18-5  | NA           | NA            |
| Silica           | 14808-60-7 | 0.10mg/M3    | 0.10mg/M3     |
| Zinc             | 7440-66-6  | NA           | 5.0mg/M3      |
| Copper (oxide)   | 1317-39-1  | 1.0 mg/M3    | 0.10mg/M3     |

## SECTION 3: HAZARDS IDENTIFICATION

Frit contains Lead. Crystalline Silica may also be present (OSHA PEL= 0.1mg/m3)

Route(s) of Entry: Igestion, absorption through the skin is negligible.

Inhalation only if sprayed.

Health Hazards (acute and chronic): Prolonged or repeated inhalation and/or ingestion of lead containing frit may result in lead poisoning. Prolonged inhalation of silica, in excess of TLV, over an extended period of time may result in injury to the lungs. Carcinogenicity: In IARC Supplement 7, inorganic lead compounds are given a 2B rating. This indicates "sufficient evidence" for Carcinogenicity

to animals and "inadequate evidence" for Carcinogenicity to humans. California lists lead as a possible carcinogen and requires Prop. 65 warning as required.  
Copper: See section 11

#### **SECTION 4: FIRST AID MEASURES**

- If inhaled: Remove from exposure
- If on skin: Wash skin with soap and water
- If in eyes: Flush eyes with large quantities of water for at least 15 minutes. If irritation persists after washing, contact a physician.
- If swallowed: Dilute by drinking water

#### **SECTION 5: FIRE FIGHTING MEASURES**

##### FIRE AND EXPLOSION HAZARD DATA

Flash Point (method used): N/A

LEL: N/A

UEL: N/A

Flammable Limits: N/A

Extinguishing Media: None required - not combustible

Special Fire Fighting Procedures: None

Unusual Fire and Explosion Hazards: None

#### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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.

Lead is listed in US-EPA Code of Federal Regulations 40, Part 261.24. Testing of the waste may be required to determine status under the hazardous waste regulations.

#### **SECTION 7: HANDLING AND STORAGE**

##### PRECAUTIONS FOR SAFE HANDLING AND USE

Engineer Control - None

Work practices- Store away from feed and food. Do not smoke, eat or drink while handling.

Procedure / equipment- None

Procedure for leaks or spills: 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. Lead is listed in US-EPA Code of Federal Regulations 40, Part 261.24. Testing of the waste may be required to determine status under the hazardous waste regulations.

#### **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

Use of the following protective measures are strongly recommended if the glazes are to be applied by spraying.

The Work/Hygienic Practices apply regardless of the method of application. Respiratory Protection (Specify Type): Use a NIOSH approved dust and/or fume respirator as necessary.

Ventilation: Local Exhaust - for spraying

Protective Gloves: N/A

Eye Protection: for spraying

Other Protective Clothing or Equipment: Wear appropriate clean, protective clothing such as, but not limited to, overalls, smocks, and aprons.

Work/Hygienic Practices: Food, beverages, and smoking materials should not be in the work area. Hygiene is very important. Wash thoroughly before eating, drinking, smoking, or applying cosmetics.

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: Various colors  
Odor and odor threshold: Negligible  
Ph: Not available  
Boiling Point: None  
Vapor Pressure: NA  
Vapor Density: NA  
Melting Point: above 1000° F  
Specific Gravity (H<sub>2</sub>O=1): 1.4 to 1.6  
Flammable Limits: None  
Explosive limits: None  
Partition Coefficient: None  
Oxidizing Properties: None  
Solubility in Water: Negligible  
Percent Volatile by Volume: None  
Evaporation Rate: None  
Freezing point: NA  
Flash Point: None  
Auto ignition temperature: None

## **SECTION 10: STABILITY AND REACTIVITY DATA**

- Incompatibility (material to avoid): Avoid fumes from firing by venting kiln area.
- Stability: Stable (conditions to avoid): N/A
- Hazardous Decomposition or By products: N/A
- Hazardous Polymerization: Will not occur
- Conditions to avoid: Fumes from firing in kiln. Inhalation of spray.

## **SECTION 11: TOXICOLOGY INFORMATION**

**Hazard to Human:** None during normal use. Harmful if inhaled or swallowed.

Lead Bearing Frit (s) - Frit is a fused silicate glass substance.

DO NOT SPRAY APPLY

If glaze is spray applied the following warnings apply: Warning: Contains Quartz.

1. Possible cancer agent based on tests with laboratory animals.
2. Exposure may cause lung damage.
3. Keep out of reach of children; avoid inhalation.

This product contains chemicals known to the State of California to cause cancer.

Health Hazards (acute and chronic): Prolonged or repeated inhalation and/or ingestion of lead containing frit may result in lead poisoning. Prolonged inhalation of silica, in excess of TLV, over an extended period of time may result in injury to the lungs. Carcinogenicity: In IARC Supplement 7, inorganic lead compounds are given a 2B rating. This indicates "sufficient evidence" for Carcinogenicity to animals and "inadequate evidence" for Carcinogenicity to humans.

Additional information: Frits are fused silica glass like substances. The bioavailability may be limited because of the physical nature of the frit.

EFFECTS OF OVEREXPOSURE: Copper is slightly toxic. Inhalation of copper dust / fumes may cause acute irritation of the nose and/or trachea, may produce acute gastroenteric symptoms resulting in vomiting and/or inflammation, and/or may cause acute metal fume fever. Exposure of skin to copper dust may cause acute dermatitis. In the case of chronic exposure, the liver, kidneys and/or spleen may be injured, and/or anemia may develop. Chronic toxicity is confined to those persons suffering from pre-existing Wilson's Disease.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: The following medical conditions may be aggravated by exposure to copper dust:

1. Persons afflicted with chronic respiratory disease and/or impaired pulmonary functions, especially

those with obstructive airway diseases.  
2. Persons afflicted with pre-existing liver disease.  
3. Persons afflicted with pre-existing kidney disease.  
4. Persons afflicted with pre-existing skin disorders.  
5. Persons afflicted with pre-existing blood disorders.  
6. Persons afflicted with pre-existing Wilsons Disease.

**PRIMARY ROUTE(S) OF ENTRY:** Inhalation, Only if spray applied ---DO NOT SPRAY.  
Ingestion. When heated copper compounds may give off copper fume which may cause symptoms simular to the common cold.  
If ingested in large amounts gastrointestinal irritation may occur with salivation, nausea , vomiting , gastric pain , diarrhea and possible hemorrhagic gastritis.  
Eye contact is irritating and may cause conjunctivitus.

## **SECTION 12: ECOLOGICAL INFORMATION**

- Mobility: N/A
- Persistence/degradability: N/A
- Bioaccumulation: N/A
- Ecotoxicity: N/A

## **SECTION 13: DISPOSAL CONSIDERATIONS**

Waste Disposal Method: Follow your Federal or State and Local regulations for disposal. Lead is listed in US-EPA Code of Federal Regulations 40, Part 261.24.

Testing of the waste may be required to determine status under the hazardous waste regulations.

Waste from residue/unused product: Can be landfilled according to local regulations. Contaminated packing: Can be landfilled according to local regulations.

## **SECTION 14: TRANSPORTATION INFORMATION**

UN Number: None for this product.  
For soluble lead UN number is 2291, guide number is 53

## **SECTION 15: REGULATORY INFORMATION**

Lead and Silica are listed by California, Proposition 65

Lead and Silica are listed on the IARC, OSHA or NTP carcinogen list.

All ingredients are on U.S. TSCA / EC / AICS / DSL Inventory.

See local requirements.

EU Status:

Symbol- None for Frit

For lead compounds:

Repr. Cat 1: R 61- May cause harm to unborn child.

Repr. Cat 3: R 62 - Possible risk of impaired fertility

Harmful (xb): R20/22 - Harmful by inhalation and if swallowed.

R33 - Danger of cumulative effects

WHMIS Status : Not Controlled

## **SECTION 16: ADDITIONAL 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 COLORAMICS, LLC or obtained from sources believed to be accurate.

COLORAMICS, LLC does not assume any legal responsibility for use or reliance on same. Customers are encouraged to conduct their own tests before using any product. Read the product label.

For more information in AUSTRALIA see web site [www.nohsc.gov.au](http://www.nohsc.gov.au)