

PRODUCT / MATERIAL: GLAZE
 MANUFACTURER / DISTRIBUTOR: LAGUNA CLAY COMPANY
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SECTION I - PRODUCT INFORMATION

TRADE NAME: MS5
 SYNONYM: SPECKLED BLUE GRAY
 CHEMICAL FAMILY: Ceramic Glaze

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) |
|----------------------------------|-----------------|------------|----------------------------------|------------------------|------------------------|
| Cobalt or Cobalt Compounds | 0.23 | 7440-48-4 | 0.1 | | 0.02 |
| Manganese or Manganese Compounds | 1 | 7439-96-5 | 5 | | 0.2 |
| Silica, Crystalline (Quartz) | 6 | 14808-60-7 | 10 mg/m3 / %SiO ₂ + 2 | 0.05 | 0.05 |
| Zinc or Zinc Compounds | 4 | 7440-66-6 | 5 | 5 | 5 |
| Zirconium or Zirconium Compounds | 21 | 7440-67-7 | 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

◆ Cobalt or Cobalt Compounds

Exposure to cobalt compounds may cause sensitization by inhalation and skin contact. Dust from handling can cause irritation of nose and throat. Prolonged exposure could cause serious respiratory illness and lung damage. Sensitized persons may develop wheezing and shortness of breath. Can also cause an allergic skin rash in some individuals. Avoid breathing dust. Wash thoroughly after handling. Keep container closed. Use with adequate ventilation.

◆ Manganese or Manganese Compounds

Acute effects of exposure: Exposure via inhalation to heavy concentrations of dusts containing manganese compounds for as little as three months have effected the central nervous system as manganese poisoning. Chronic effects of exposure: Excessive, long-term inhalation of airborne mineral dusts and particulate may contribute to the development of bronchitis, reduced breathing capacity, and may lead to the increased susceptibility to lung disease. Manganese poisoning: The excessive, chronic inhalation of manganese compounds usually begins with complaints of languor and sleepiness. This is followed by weakness in the legs and the development of stolid, mask-like faces. The patient speaks with a slow monotonous voice. Then muscular twitching appear, varying from a fine tremor of the hands to coarse, rhythmical movements of the arms, legs, and trunk. There is a slight increase in tendon reflexes, ankle and patellar clonus, and a typical Parkinsonian slapping gait.

◆ 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.

◆ Zinc or Zinc Compounds

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

◆ Zirconium or Zirconium Compounds

Skin, lung granulomas; in animals: irritation skin, mucous membrane; X-ray evidence of retention in lungs.

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 results 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 its 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:

| | | |
|----------------------------------|---|--------|
| Cobalt or Cobalt Compounds | < | 0.23 % |
| Manganese or Manganese Compounds | < | 1 % |
| 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.