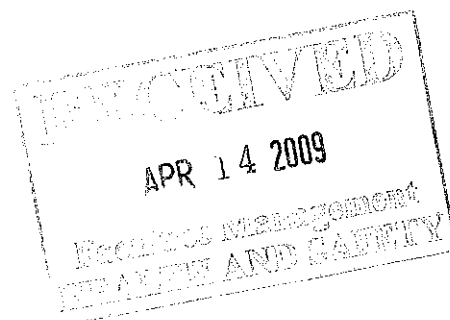


MSDS Sheet - Non-Toxic Ceramic Glazes Containing Copper

SECTION 1: CHEMICAL PRODUCT AND COMPANY INFORMATION

Prepared: December 2, 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

Non Toxic Ceramic Glazes that contain copper pigments in oxide form.

Element EL-202, EL-205, EL-207, EL-208, EL-210
Chunkies
Elements EL-103, EL-105, EL-106, EL-108, EL-113, EL-115, EL-117, EL-119,
EL-120, EL-122, EL-123
Series 2000 S-2131, S-2156, S-2157, S-2158
Glazes

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS	ACGIH TLV	OSHA PEL
Copper (oxide)	1317-39-1	1.0 mg/M3	0.10mg/M3
Silica	14808-60-7	0.10mg/M3	0.10mg/M3
Zinc	7440-66-6	NA	5.0mg/M3
Alumina Silicate	1332-58-7	NA	NA
Bentonite/Clay	1302-78-9	NA	NA
Water	7732-18-5	NA	NA

SECTION 3: HAZARDS IDENTIFICATION

Contains Copper oxide based pigments.

Crystalline Silica may be present .

(OSHA PEL .1mg/m³)

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

Inhalation only if sprayed. Ingestion only if taken internally.

Health Hazards (acute and chronic): Prolonged inhalation of silica, in excess of TLV, over an extended period of time may result in injury to the lungs.

Copper see section 11

SECTION 4: FIRST AID MEASURES

If Inhaled: Remove from exposure

If on skin: Wash skin with soap and water for 15 minutes.

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

If Ingested: Induce vomiting as directed by medical personnel.

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

These products have been certified non toxic.

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.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Use of the following protective measures are strongly recommended if the paints 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. (NIOSH type N100 Filters)

Ventilation: Local Exhaust - for spraying

Protective Gloves: Use as needed to avoid skin irritation.

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: Dark colored liquids.
Odor and odor threshold: Mild
Ph: Not available
Boiling Point: 212 deg F
Vapor Pressure: 18mm at 70 deg F
Vapor Density: heavier than air
Melting Point: NA
Specific Gravity (H₂O=1): 1.2 to 1.4
Flammable Limits: None
Explosive limits: None
Partition Coefficient: None
Oxidizing Properties: None
Solubility in Water: Soluble
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): As sold none, if copper oxide was removed from the glaze it is incompatible with aluminum (violent reaction when heated) lithium nitride and peroxyformic acid. Will corrode aluminum.
Stability: Stable (conditions to avoid: N/A)
Hazardous Decomposition or Byproducts: Not available
Hazardous Polymerization: Will not occur
Conditions to avoid: None.

SECTION 11: TOXICOLOGY INFORMATION

Hazard to Human: None during normal use. Harmful if inhaled, or ingested.
Product may contain silica and copper oxide.
If product 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.

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 Wilsons 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 similar 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 conjunctivitis.

SECTION 12: ECOLOGICAL INFORMATION

Mobility: Not Available
Persistence/degradability: Not Available
Bioaccumulation: Not Available
Ecotoxicity: Not Available

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: Empty containers should be taken for recycling, recovery or waste disposal.

SECTION 14: TRANSPORTATION INFORMATION

UN Number: None for this product.

SECTION 15: REGULATORY INFORMATION

Silica is listed by California , Proposition 65
Silica is 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

WHMIS Status : Not Controlled
Chemical Inventory Status part 1

	TSCA	EC	Japan	Australia
Copper Oxide (1317-39-1)	yes	yes	yes	yes

Chemical Inventory Status part 2 Canada

	Korea	DSL	NDSL	Phil.
Copper Oxide (1317-39-1)	yes	yes	no	yes

Federal , State and International Regulations Part 1

	Sara 302	Sara 313	RQ TPQ LIST	Chem Catagory
Copper Oxide (1317-39-1)	No	No	No	Copper Cmpd

Federal , State and International Regulations Part 2

	CERCLA	RCRA	TSCA
Copper Oxide (1317-39-1)	No	No	No

Chemical Weapons Convention: No

SECTION 16: ADDITIONAL INFORMATION

Composition and possible harmful effects will vary depending on pigments used.
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