

Fundamentals Underglazes, Engobes & Astro Gems

SECTION 1: IDENTIFICATION OF SUBSTANCE AND SUPPLIER

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Product Identification: Fundamentals™ Underglazes, Engobes and Astro Gems™ Textural Glazes

Product Usage: Glazing of ceramic ware

Product Identifier Codes:

Underglazes: UG1 King's Blue, UG2 Sea Blue, UG3 Baby Blue, UG10 Crimson, UG19 Electra Blue, UG21 Leaf Green, UG22 Spring Green, UG30 Sand, UG31 Chocolate, UG32 Cocoa, UG34 Chestnut Brown, UG37 Suntan, UG42 Light Yellow, UG46 Bright Yellow, UG50 Jet Black, UG51 China White, UG53 Silver Grey, UG57 Spice Brown, UG58 Harvest Gold, UG67 Ivory, UG68 Apple Green, UG72 Wedgewood Blue, UG82 Tucson Turquoise, UG85 Orange Sorbet, UG87 Regal Purple, UG90 Green Mist, UG91 True Teal, UG92 Lilac, UG93 Wild Violet, UG94 Pansy Purple, UG97 Bright Blue, UG100 Terra Cotta, UG146 Pink Pink, UG198 Dark Grey, UG203 Squash Yellow, UG204 Orange, UG206 Fire Engine Red, UG207 Flame Red, UG208 Dragon Red, UG209 Jade, UG210 Forest Green, UG211 Olive, UG213 Cinnamon, UG214 Peachy Pink, UG215 Blush, UG216 Peach, UG217 Red Coral, UG218 Pear Green, UG219 Marine Blue, UG220 Sage, UG221 Cement

Astro Gems™ Textural Glazes: AS510 White Opal, AS512 Black Diamond, AS513 Golden Sand

Engobe Glazes: CR201 Dark Blue, CR202 Light Blue, CR203 White, CR204 Black, CR205 Pink

Manufacturer:	Coloramics, LLC (D.B.A. Mayco Colors)
	4077 Weaver Court South
	Hilliard, Ohio 43026
	United States of America
	(614) 876-1171

IN CASE OF EMERGENCY PLEASE CONTACT YOUR REGIONAL/LOCAL POISON CONTROL CENTER

SECTION 2: HAZARDS IDENTIFICATION

Classification of mixture: Non-classified (1999/45/EEC)

Each glaze family is a mixture of ceramic material containing, water, non-leaded frits, clay, and other minerals and color pigments. Contains potential carcinogens: Crystalline silica (quartz), as an inhalation hazard, may be present if:

- Unfired, dried glaze is excessively handled and allowed to create dust.
- Mist is present after spray application

A few pigments may contain a very small amount of zirconium encapsulated cadmium, titanium dioxide, and other metals. Other ingredients present have no known acute toxicity.

GHS Label Elements: None Required

Other Hazards: None known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Each glaze family contain proprietary mixtures of ceramic materials (listed below) and color pigments. The Fundamentals™ Underglaze and Astro Gems™ glaze lines are classified as non-hazardous.

Ingredients	CAS #	Ranges of Percentages
Water	7732-18-5	56.8% - 66.8%
Frit	65997-18-4	1.2% - 6.4%
Clay/Kaolin	1332-58-7	12.5% - 15.3%
Zinc Oxide	1314-13-2	0.0% - 1.6%
Bentonite	1302-78-91	0.0% - 0.7%
Nepheline Syenite	1344-28-1	6.8% - 10.9%
Zirconium Silicate	14940-68-2	0.0% - 5.8%
Carboxymethylcellulose	9004-34-2	1.0% - 1.2%
Proxel	75037-67-1	0.1%
Pigments	varies	varies

SECTION 4: FIRST-AID MEASURES

- **Inhalation:** May cause irritation. Remove from exposure.
- **Skin:** May cause irritation. Wash skin with soap and water.
- **Eyes:** May cause irritation. Flush eyes with large quantities of water for at least 15 minutes. If irritation persists after washing, contact a physician.
- **Ingestion:** Contact a physician.

Important Symptoms/Effects: None Known

Immediate Medical Attention/Special Treatment: None Known

SECTION 5: FIRE-FIGHTING MEASURES

- **Suitable Extinguishing Media:** None
- **Specific Hazards Arising From Chemical:** None
- **Special Protective Equipment and Precautions for Fire Fighters:** None

SECTION 6: ACCIDENTAL RELEASE MEASURES

- **Personal Precautions, Protective Equipment and/or Emergency Procedures:** None
- **Environmental Precautions:** None
- **Methods and Materials for Containment and Clean-Up:** Wipe/Mop spill area and rinse with water

SECTION 7: HANDLING AND STORAGE

- **Precautions for Safe Handling:** Ventilation - local exhaust if spray application is used
- **Work/Hygienic Practices:** Food, beverages, and smoking materials should not be in the work area. Wash thoroughly before eating, drinking, smoking, or applying cosmetics.
- **Conditions for Safe Storage, Including Incompatibilities:** None

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients	CAS #	PEL	TLV
Zinc Oxide	1314-13-2	5 mg/m ³	2.0 mg/m ³

Remaining main glaze ingredients do not have formal Exposure Limits. Some pigments contain metals that have exposure limits (Co, TiO₂, Cu, Cr, Mn) but are used in low levels.

These glazes are non-hazardous liquid mixtures of ceramic materials containing, water, non-leaded frits, clay, and other minerals and color pigments. These mixtures have no TLV or PEL

- **Engineer Control:** Adequate ventilation (local exhaust) if spray application is used.
- **Respiratory Protection:** Use a NIOSH approved respirator if spray application is used.
- **Protective Gloves:** Not normally needed.
- **Eye Protection:** Wear appropriate eye protection or safety glasses to keep mist out of eyes if spray application is used.
- **Personal Protective Clothing or Equipment:** Wear appropriate clean, protective clothing such as, but not limited to, overalls, smocks, and aprons.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colored and/or Clear Liquid Mixtures
Odor/Odor Threshold:	Negligible
PH:	N/A
Boiling Point/Range:	N/A
Freezing point:	32°F
Flash Point:	None
Vapor Pressure:	N/A
Vapor Density:	N/A
Flammability:	None
Evaporation Rate:	None
Upper/Lower Explosive Limits:	None
Partition Coefficient (octanol/water):	N/A
Relative Density:	N/A
Solubility in Water:	Partial
Decompositional Temperature:	None
Viscosity:	N/A
Auto ignition temperature:	None

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	None Known
Chemical Stability:	Stable
Possibility of Hazardous Reactions:	None Known
Conditions to Avoid:	Fumes from firing in kiln; Mist created from spray application.
Incompatible Material:	None Known
Hazardous Decomposition or By-Products:	None Known

SECTION 11: TOXICOLOGY INFORMATION

Primary Route(s) of Entry: Dermal, Inhalation.

Hazard to Humans: None during normal use. The highest threat of inhalation exists during the excessive handling of dried, unfired glazed ware and/or during spray application.

Acute Toxicity: N/A

Skin Corrosion/Irritation: N/A

Serious Eye Damage/Irritation: N/A

Respiratory/Skin Sensitization: N/A

Carcinogenicity: N/A

Reproductive Toxicity: N/A

STOT-Single Exposure: N/A

STOT-Repeated Exposure: N/A

Germ Cell Mutagenicity: N/A

Aspiration Hazard: N/A

Additional information:

These mixtures contain silica, a known carcinogen. Inhalation is the route of entry into the body that can lead to the development of Silicosis.

These water-based, premixed products should be non-toxic during recommended use.

Some of the pigments may contain small amounts of various forms of metals (Sn, Mn, TiO₂, Cu, Zr, V, Fe, Co, Cr, Ni, Cd), some of which are considered carcinogenic. The metals in pigments may be in form of frits, spinel or formed from high temperature calcination that may have a different bioavailability than the metal itself. Silica and pigments in the glaze should be non-toxic during recommended use.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:	None
Biodegradability:	No
Mobility in Soil:	No
Persistence:	Yes
Bioaccumulation:	No
Other Adverse Effects:	None

SECTION 13: DISPOSAL CONSIDERATIONS

Follow local, state and federal regulations.

SECTION 14: TRANSPORTATION INFORMATION

Product Identifier: Non-Hazardous Mixtures

UN Shipping Name: N/A

UN Number: None

Environmental Hazard: None

Packing Group: None

Transportation Hazard Class: N/A

Special Precautions: None

SECTION 15: REGULATORY INFORMATION

Federal, State and Local regulations not provided elsewhere in the SDS:

National Regulations:

United States:

- TSCA: all components of these products are on the US TSCA Inventory
- SARA Section 313 Toxic Chemicals: None
- IARC, OSHA and NTP: Silica (Quartz), Titanium Dioxide, Cobalt, Nickel and Chromium are listed on the carcinogen list.

State Regulations:

California

- Proposition 65: Silica (Quartz), Titanium Dioxide, Cobalt, Nickel and Chromium are listed on the carcinogen list.

Chemical Safety Assessment:

Conforms to ASTM D 4236 This material has been evaluated under the provisions of LHAMA (Labeling of Hazardous Art Material Act). This product is judged to be non-toxic and non- flammable under proposed use conditions. No special warning is required under the provisions of LHAMA or California Proposition 65 during use.

SECTION 16: ADDITIONAL INFORMATION

Mayco Glazes do not contain and products and/or ingredients derived from nuts, peanuts, eggs, milk, or gluten. Mayco Glazes do not contain latex.

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Acronyms used in this SDS:

- CAS #: Chemical Abstracts Service Number
- TSCA: Toxic Substances Control Act
- SARA: Superfund Amendments and Reauthorization Act
- IARC: International Agency for Research on Cancer
- OSHA: Occupational Safety and Health Administration
- NTP: National Toxicology Program
- PEL: Permissible Exposure Limit
- TLV: Threshold Limit Values

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