

SAFETY DATA SHEET

PRODUCT NAME: **HIGH FIRE EXOTICS SERIES 101 – 157**

1 – IDENTIFICATION OF MATERIAL AND SUPPLIER

SUPPLIER: _____

ADDRESS: _____

TELEPHONE: _____

FACSIMILIE: _____

EMERGENCY: _____

WEB SITE: _____

E-MAIL: _____

SYNONOMYS: **CHRYSANTHOS HIGH FIRE EXOTICS – HE101 - HE157**

USES: **CERAMIC GLAZES**

ISSUED DATE: Thursday, 3 May 2018

2 – HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO CRITERIA OF NOHSC

The High Fire Exotics Series 101 to 157 glazes are a mixture of ceramic material containing, water, non-leaded frits, clay and other minerals. Contains potential carcinogens: Crystalline silica (quartz) and Nickel as inhalation hazards and may be present if:

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

Contains Copper Carbonate which may be irritating to the skin and eyes on contact. Inhalation will cause irritation to the lungs and mucus membrane. Irritation to the eyes will cause watering and redness.

Contains Zinc Oxide which is hazardous to the aquatic environment, long-term hazard Category 1.

GHS LABEL ELEMENTS:

HAZARD STATEMENTS:

- H411** – Toxic to aquatic life with long lasting effects.
- H302** – Harmful if swallowed.
- H319** – Causes serious eye irritation.
- H332** – Harmful if inhaled.
- H315** – Causes skin irritation.

PRECAUTIONARY STATEMENTS:

- P273** – Avoid release to the environment.
- P264** – Wash hands thoroughly after handling.
- P270** - When using do not eat, drink or smoke.

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P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

P262 - Do not get in eyes, on skin, or on clothing.

SIGNAL WORD:

WARNING



NOT CLASSIFIED AS DANGEROUS GOODS BY THE CRITERIA OF THE ADG CODE

UN NUMBER: Non allocated
PACKING GROUP: None allocated
HAZCHEM CODE: None allocated

DG CODE: None allocated
SUBSIDURARY RISK: None allocated

3 – COMPOSITION / INFORMATION ON INGREDIENTS

ENTITY	CAS NO	CLASSIFICATION	%
BINDER	N/A	N/A	< 1%
CADMIUM COMPOUNDS	N/A	Acute Tox. 4 H302 H312 H332, Aquatic Acute 1 H400 H410	0 – 6%
CALCINED ALUMINA	1344-28-1	N/A	< 3%
CALCIUM CARBONATE	471-34-1	N/A	< 7%
CERAMIC PIGMENTS	N/A	N/A	0 – 4%
COBALT OXIDE	1307-96-6	Acute Tox. 4 H302, Skin Sens. 1 H317, Aquatic Acute 1 H400, Aquatic Chronic 1 H410	0 – 2%
COPPER CARBONATE	12069-69-1	Acute Tox. 4 H302, Aquatic Acute 1 H400, Aquatic Chronic 2 H411, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 (liver, kidney, respiratory)	0 - 3%
DISPERSANT	N/A	N/A	< 0.1%
FRITS, CHEMICALS	65997-18-4	N/A	< 8%
IRON OXIDE	1309-37-1	N/A	0 – 1%
KAOLIN	1302-78-9	N/A	< 5%
NICKEL OXIDE	11099-02-8	Skin Sens. 1 H317, Carc. 1A H350i, STOT RE1 H372, Aquatic Chronic 4 H413	0 - 1%
POTASH FELDSPAR	68476-25-5	Eye Irrit. 2 H319, STOT SE 3H335 (respiratory), STOT RE 1 H372 (lungs), STOT RE 2 H373 (lungs)	< 9%
PRESERVATIVE	N/A	N/A	< 0.5%

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RUTILE	13463-67-7	N/A	< 9%
SILICA	14808-60-7	N/A	< 13%
STRONTIUM CARBONATE	1633-05-2	N/A	0 - 2%
WATER	7732-18-5	N/A	< 47%
ZINC OXIDE	1314-13-2	Aquatic Acute 1 H400, Aquatic Chronic 1 H410	< 12%

4 – FIRST AID MEASURES

EYE:	May cause irritation. Flush eyes with large quantities of water for at least 15 minutes. If irritation persists after washing, contact a doctor.
INHALED:	May cause irritation. Remove from exposure.
SKIN:	May cause irritation. Wash skin with soap and water.
SWALLOWED:	Contact a doctor. Do not induce vomiting.
ADVICE TO DOCTOR:	Treat symptomatically.

5 – FIRE FIGHTING MEASURES

FLAMMABILITY:	Non Flammable.
FIRE & EXPLOSION:	No fire or explosion hazard exists.
EXTINGUISHING:	Use an extinguishing agent suitable for the surrounding fire.
HAZCHEM CODE:	None allocated.

6 – ACCIDENTAL RELEASE MEASURES

SPILLAGE:	Use personal protection equipment. Contain spillage. Uncontaminated material may be recovered and re-used. Contaminated material to be covered / absorbed with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.
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7 – STORAGE AND HANDLING

STORAGE:	Store in a cool, dry, well ventilated area, removed from oxidizing agents, acids and foodstuffs. Ensure that containers are adequately labeled, protected from physical damage, and sealed when not in use.
HANDLING:	Before using carefully read the product label. Use of safe practices is recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE STANDARDS:

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INGREDIENT	TWA		STEL		ACGIH TLV	
	ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
KAOLIN	-	10	-	-	-	3
SILICA	-	0.1	-	-	-	0.1
COPPER CARBONATE (as Cu)	-	1	-	-	-	-
NICKEL OXIDE	-	0.1	-	-	-	-
POTASH FELDSPAR	-	-	-	-	-	.05
STRONTIUM CARBONATE	-	0.5	-	-	-	-
CADMIUM COMPOUNDS	-	0.01	-	-	-	-
COBALT OXIDE	-	0.05	-	-	-	-
RUTILE	-	-	-	-	-	3
ZINC OXIDE	-	10	-	-	-	2

Remaining main glaze ingredients do not have formal Exposure Limits. These glazes are liquid mixtures of ceramic materials containing, water, unleaded frits, clay and other minerals. These mixtures have no TWA or TLV under normal use. If sprayed, observe exposure limits.

BIOLOGICAL LIMITS: No biological limits allocated.

ENGINEERING CONTROLS: Avoid inhalation when spraying. Use in well ventilated area. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapor levels below the recommended exposure standard.

PPE



Wear appropriate eye protection / safety glasses to keep mist out of eyes if spray application is used.
Not normally needed, however to avoid possibility of sensitization, wear gloves.
Wear appropriate clean, protective clothing such as, but not limited to, overalls, smocks, and aprons.
Use a NIOSH approved respirator if spray application is used.

WORK/HYGENIC PRACTICES: Good hygiene practices should be followed. When products are in use, do not eat, drink, or smoke. Wash hands immediately after use. Keep sealed.

9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Viscous Colored liquid
ODOUR:	Negligible
BOILING POINT:	N/A
MELTING POINT:	> 400°C
VAPOUR PRESSURE:	NOT AVAILABLE
SPECIFIC GRAVITY:	1.4 – 1.5 @ 25°C
FLASH POINT:	NOT RELEVANT
FLAMMABILITY LIMITS:	NON FLAMMABLE
SOLUBILITY IN WATER:	Negligible
VISCOSITY:	No data
pH:	7.0 – 8.5
% VOLATILES	7 - 14%
EVAPORATION RATE	NOT AVAILABLE
UPPER EXPLOSION LIMIT	NOT RELEVANT
LOWER EXPLOSION LIMIT	NOT RELEVANT

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10 – STABILITY AND REACTIVITY

REACTIVITY:	None known.
CHEMICAL STABILITY:	Stable.
CONDITIONS TO AVOID:	Fumes from firing in kiln; Mist created from spray application. Avoid contact with incompatible substances.
INCOMPATIBLE MATERIAL:	None known.
HAZARDOUS DECOMPOSITION:	None known.
HAZARDOUS REACTIONS:	None known.

11 – TOXICOLOGICAL INFORMATION

**HEALTH HAZARD SUMMARY:
ACUTE & CHRONIC**

Under normal conditions of use, adverse health effects are not anticipated.

Due to the form of the products and low volatility, an inhalation hazard is not anticipated unless products are heated or sprayed.

Prolonged inhalation of silica, in excess of TLV, over an extended period of time may result in injury to the lungs and silicosis.

Copper Carbonate is toxic to kidneys, lungs, liver, mucous membranes. Very hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of inhalation.

Nickel Oxide. Classified A1 (Confirmed for human.) by ACGIH, 1 (Proven for human.) by IARC, + (PROVEN) by OSHA. Classified 2 (Reasonably anticipated.) by NTP. The substance is toxic to lungs.

Strontium Carbonate dust maybe irritating to eyes, skin and respirator system.

Zinc Oxide is not listed as a suspected/confirmed carcinogen by ACGIH, IARC, NTP, SHA. Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

EYE: Irritant. Contact may result in irritation, lacrimation and redness.

INHALATION: Exposure considered unlikely. Due to the form of the products and nature of use, an inhalation hazard is not anticipated with normal use.

SKIN: Mild irritants. Prolonged or repeated contact may result in mild irritation.

INGESTION: Hazardous. Ingestion is considered unlikely due to the form of the products. However ingestion via hand-mouth transfer may result in gastrointestinal irritation, nausea and vomiting. Maintain good personal hygiene standards.

TOXICITY DATA: QUARTZ (SILICA CRYSTALLINE) (14808-60-7)
LCLo (inhalation) 300 µg/m³/10 years (human)

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TCLo (inhalation) 16,000,000 particles/ft³/8 hrs/17.9 years
(human fibrosis)

FRITS, CHEMICALS (65997-18-4)
LD50 oral (rat) > 2,000 mg/kg
LC50 oral (rat) > 2,000 mg/kg

COPPER
LD50 oral (rat) > 1,350 mg/kg

ZINC OXIDE
LD50 oral (rat) - 7.950 mg/kg
LC50 Inhalation (rat) - 2.500 mg/m³

12 – ECOLOGICAL INFORMATION

ENVIRONMENT:

COPPER CARBONATE
Copper is very toxic to aquatic life.

ZINC OXIDE
LC50 (fish) - Oncorhynchus mykiss (rainbow trout) - 1,1 mg/l - 96,0 h
EC50 (Daphnia magna) - 0,098 mg/l - 48 h

Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: Insoluble in water. (can be separated from aqueous systems by sedimentation and/or filtration techniques. Predicted to have low mobility in soil.

Other products, short term degradation unlikely. However, long term degradation may occur.

13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

For small amounts absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Contact the manufacturer for additional information if larger amounts are involved.

LEGISLATION:

Dispose of in accordance with relevant local legislation.

14 – TRANSPORTATION

NOT CLASSIFIED AS DANGEROUS GOODS BY THE CRITERIA OF THE ADG CODE.

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG/IMO)	AIR TRANSPORT (IATA/ICAO)
UN NUMBER	None Allocated	None Allocated	None Allocated
PROPER SHIPPING NAME	Water based artist and hobby ceramic glazes	Water based artist and hobby ceramic glazes	Water based artist and hobby ceramic glazes
DG CLASS / DIVISION	None Allocated	None Allocated	None Allocated
SUBSIDIARY RISKS	None Allocated	None Allocated	None Allocated

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PACKING GROUP	None Allocated	None Allocated	None Allocated
HAZCHEM CODE	None Allocated	None Allocated	None Allocated

15 – REGULATORY INFORMATION

INVENTORY LISTINGS:

AUSTRALIA:

All components are listed on AICS or are exempt.

USA:

Silica is listed on IARC, OSHA and NTP carcinogen list.

All ingredients are on TSCA inventory.

California Proposition 65 - Proposition 65: Silica (Quartz) and Nickel are listed on the carcinogen list.

CANADA:

All ingredients are on DSL inventory.

WHMIS – Not controlled.

EUROPE:

All ingredients are on EC inventory.

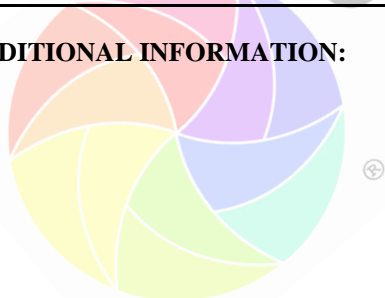
CHEMICAL SAFETY ASSESSMENT:

EU:

Does require a hazardous warning label according to the EU guidelines/Dangerous Chemicals Ordinance.

16 – OTHER INFORMATION

ADDITIONAL INFORMATION:



PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment made.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

ABBREVIATIONS:

AICS	Australian Inventory of Chemical Substances
ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstracts Service Number
CNS	Central Nervous System
EC No.	EC No – European Community Number
GHS	Globally Harmonized System
IARC	International Agency for Research on Cancer
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m ³	Milligrams per cubic meter
PEL	Permissible Exposure Limit

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pH	Acidity < 7 – Alkalinity > 7 measure
ppm	Parts Per Million
REACH	Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
TLV	Threshold Limit Value
TWA/OEL	Time Weighted Average of Occupational Exposure Limit
STEL	Short Term Exposure Limit
TSCA	Toxic Substances Control Act

REVISION HISTORY:

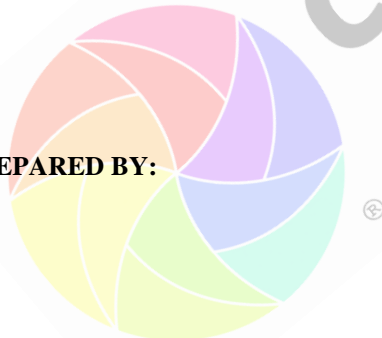
Revision	Description
1.0	Creation
1.1	Addition of new HE Glazes

REPORT STATUS:

The report has been by Chrysanthos Color Company Limited – China. The information provided on safety and handling represents the current knowledge at the time of writing. We should be contacted directly for further clarification regarding any aspect of the product if required.

The SDS has been prepared with all due care to include accurate and up-to-date information. We do not however provide any warranty as to accuracy or completeness. As far as lawfully possibly, Chrysanthos Color Company Limited – China accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained herein.

PREPARED BY:



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End of SDS