

## SAFETY DATA SHEET

PRODUCT NAME: **HIGH FIRE EXOTICS SERIES 001 – 005**

---

### 1 – IDENTIFICATION OF MATERIAL AND SUPPLIER

---

SUPPLIER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

FACSIMILIE: \_\_\_\_\_

EMERGENCY: \_\_\_\_\_

WEB SITE: \_\_\_\_\_

E-MAIL: \_\_\_\_\_

SYNONOMYS: **CHRYSANTHOS HIGH FIRE EXOSTICS - HE001, HE005**

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 001 to 005 are a mixture of ceramic material containing, water, non leaded and leaded frits, clay and other minerals. Contains potential carcinogens: Crystalline silica (quartz), Lead 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 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.

#### GHS LABEL ELEMENTS:

##### HAZARD STATEMENTS:

- H302** – Harmful if swallowed.  
**H315** – Causes skin irritation.  
**H319** – Causes serious eye irritation.  
**H332** – Harmful if inhaled.  
**H350** – May cause cancer.  
**H360** – May damage fertility or the unborn child.  
**H372** – Causes damage to organs through prolonged or repeated exposure.  
**H411** – Toxic to aquatic life with long lasting effects.

##### PRECAUTIONARY STATEMENTS:

- P202** – Do not handle until all safety precautions have been understood.  
**P260** – Do not breathe dust/fume/gas/mist/vapors/spray  
**P262** – Do not get in eyes, on skin, or on clothing.  
**P264** – Wash hands thoroughly after handling.

## SAFETY DATA SHEET

**PRODUCT NAME: HIGH FIRE EXOTICS SERIES 001 – 005**

**P270** - When using do not eat, drink or smoke.  
**P271** – Use only outdoors or well ventilated area.  
**P273** – Avoid release to the environment.  
**P280** - Wear protective gloves/protective clothing/eye protection/face protection.

**SIGNAL WORD:** Danger



**UN NUMBER:** 3082  
**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%
CALCIUM CARBONATE	471-34-1	N/A	< 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)	< 2%
DISPERSANT	N/A	N/A	< 0.1%
FRITS, CHEMICALS	65997-18-4	N/A	< 14%
FRITS, CHEMICALS; LEAD BISILICATE	65997-18-4	Repr. 1A H360, STOT RE 1 H372, Aquatic Chronic 3 H412	< 12%
KAOLIN	1302-78-9	N/A	< 10%
MANGANESE OXIDE	1313-13-9	N/A	< 12%
NICKEL OXIDE	11099-02-8	Skin Sens. 1 H317, Carc. 1A H350i, STOT RE1 H372, Aquatic Chronic 4 H413	0 - 2%
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%
STRONTIUM CARBONATE	1633-05-2	N/A	< 2%
TITANIUM DIOXIDE	13463-67-7	N/A	0 - 1%
WATER	7732-18-5	N/A	< 45%

## SAFETY DATA SHEET

PRODUCT NAME: **HIGH FIRE EXOTICS SERIES 001 – 005**

### 4 – FIRST AID MEASURES

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

### 5 – FIRE FIGHTING MEASURES

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

### 6 – ACCIDENTAL RELEASE MEASURES

<b>SPILLAGE:</b>	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.
------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### 7 – STORAGE AND HANDLING

<b>STORAGE:</b>	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.
<b>HANDLING:</b>	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:

INGREDIENT	TWA		STEL		ACGIH TLV	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
KAOLIN	-	10	-	-	-	3
SILICA	-	0.1	-	-	-	0.1
COPPER CARBONATE (as Cu)	-	1	-	-	-	-
FRITS, CHEMICALS; LEAD BISILICATE	-	-	-	-	-	-

## SAFETY DATA SHEET

**PRODUCT NAME: HIGH FIRE EXOTICS SERIES 001 – 005**

NICKEL OXIDE	-	0.1	-	-	-	-
POTASH FELDSPAR	-	-	-	-	-	.05
STRONTIUM CARBONATE	-	0.5	-	-	-	-

Remaining main glaze ingredients do not have formal Exposure Limits. These glazes are liquid mixtures of ceramic materials containing, water, unleaded and leaded 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**

<b>Eye / Face</b>	Wear appropriate eye protection / safety glasses to keep mist out of eyes if spray application is used.
<b>Hands</b>	Not normally needed, however to avoid possibility of sensitization, wear gloves.
<b>Body</b>	Wear appropriate clean, protective clothing such as, but not limited to, overalls, smocks, and aprons.
<b>Respiratory</b>	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. Keep out of reach of children. Do not use these products if pregnant or contemplating pregnancy.

### 9 – PHYSICAL AND CHEMICAL PROPERTIES

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

### 10 – STABILITY AND REACTIVITY

<b>REACTIVITY:</b>	None known.
<b>CHEMICAL STABILITY:</b>	Stable.

## SAFETY DATA SHEET

**PRODUCT NAME:** HIGH FIRE EXOTICS SERIES 001 – 005

**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.

Lead Oxide. Classified 2B (Possible carcinogen for human.) by IARC. The substance is toxic to blood, kidneys, the nervous system, mucous membranes. May damage fertility or the unborn child. May cause serious eye damage, is suspected of causing genetic defects, is suspected of causing cancer, is harmful if swallowed, is harmful if inhaled. May cause respiratory irritation and may cause an allergic skin reaction.

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.

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

**INHALATION:** Very hazardous. 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:** Very 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/m<sup>3</sup>/10 years (human)  
TCLo (inhalation) 16,000,000 particles/ft<sup>3</sup>/8 hrs/17.9 years  
(human fibrosis)

## SAFETY DATA SHEET

**PRODUCT NAME: HIGH FIRE EXOTICS SERIES 001 – 005**

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

### 12 – ECOLOGICAL INFORMATION

**ENVIRONMENT:**

Copper is very toxic to aquatic life.

Lead and lead compounds will partially settle out due to their fairly low solubility and partially dissolve. In soil, lead and lead compounds are generally not very mobile or bioavailable, as they can be strongly absorbed on soil particles, increasingly over time. It also forms complexes with organic matter and clay minerals that limit its mobility. When released into the soil, this material is not expected to leach into groundwater.

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.**

	<b>LAND TRANSPORT (ADG)</b>	<b>SEA TRANSPORT (IMDG/IMO)</b>	<b>AIR TRANSPORT (IATA/ICAO)</b>
<b>UN NUMBER</b>	3082	3082	3082
<b>PROPER SHIPPING NAME</b>	Water based artist and hobby ceramic glazes	Water based artist and hobby ceramic glazes	Water based artist and hobby ceramic glazes
<b>DG CLASS / DIVISION</b>	None Allocated	None Allocated	None Allocated
<b>SUBSIDIARY RISKS</b>	None Allocated	None Allocated	None Allocated
<b>PACKING GROUP</b>	None Allocated	None Allocated	None Allocated
<b>HAZCHEM CODE</b>	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.

## SAFETY DATA SHEET

**PRODUCT NAME: HIGH FIRE EXOTICS SERIES 001 – 005**

California Proposition 65 - Proposition 65: Silica (Quartz), Lead 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:  
Hazardous warning label required 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 <sup>3</sup>	Milligrams per cubic meter
PEL	Permissible Exposure Limit
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

## SAFETY DATA SHEET

**PRODUCT NAME: HIGH FIRE EXOTICS SERIES 001 – 005**

**REVISION HISTORY:**

Revision	Description
1.0	Creation

**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:**

Tony Crisafi  
Chrysanthos Color Company Limited  
2<sup>nd</sup> Floor, Building B1,  
No 19 Gaoxinxishi Road,  
Nanning High Tech Zone, Nanning,  
Guangxi 530003, China.  
Tel/Fax: +86 (771) 231 0885  
Mob: +61 402 830 337  
Email: [info@chrysanthos.com](mailto:info@chrysanthos.com)  
Web: [www.chrysanthos.com](http://www.chrysanthos.com)

**End of SDS**