

MATERIAL SAFETY DATA SHEET

SECTION I PREPARATION AND PRODUCT INFORMATION

MANUFACTURER: THE POTTERY SUPPLY HOUSE LTD.
ADDRESS: 1120 SPEERS ROAD
OAKVILLE, ONTARIO L6L 2X4

SUPPLIER: THE POTTERY SUPPLY HOUSE LTD. TEL: 1 800 465-8544
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OAKVILLE, ONTARIO L6L 2X4 FAX: 905 849-0001

MATERIAL NAME: **BLACK UNDERGLAZE**
MATERIAL USE: CERAMIC DECORATING COLOUR

SECTION II HAZARDOUS INGREDIENTS

INGREDIENT	%	C.A.S.#	LD50	LC50
FRIT,*	19.1	65997-18-4	N.A.	N.A.
CONTAINING FUSED OXIDES OF:				
ALUMINUM	1.0 - 5.0	1344-28-1	N.A.	N.A.
CALCIUM	1.0 - 5.0	1305-78-8	N.A.	N.A.
SILICON (AMORPHOUS)	7.0 - 13.0	7631-86-9	N.A.	N.A.
SODIUM	1.0 - 5.0	1313-59-3	N/A	
BORON	1.0 - 5.0	1303-86-2	N.A.	N.A.
CHROMITE ORE	24.8	1308-31-2	N.A.	N.A.
MAZERENE BLUE STAIN*	1.3	68187-40-6	N.A.	N.A.
CONTAINING FUSED OXIDES OF:				
SILICON	0.1 - 1.0	14808-60-7	N.A.	N.A.
COBALT	0.1 - 1.0	1396-06-1	N.A.	N.A.

*A FUSED SILICATE COMPOUND CONTAINING REPORTABLE OXIDES. FORMED BY HIGH TEMPERATURE CALCINATION, IT MAY NOT EXHIBIT ANY OF THE PROPERTIES OF THE METAL COMPOUNDS LISTED.

SECTION III PHYSICAL DATA

PHYSICAL STATE: LIQUID/SOLID SUSPENSION.
ODOUR / APPEARANCE: OPAQUE, BLACK FLUID WITH MILD ODOUR.
ODOUR THRESHOLD: NOT AVAILABLE
SPECIFIC GRAVITY: APPROXIMATELY 1.55
VAPOUR PRESSURE: NOT AVAILABLE
VAPOUR DENSITY: NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
BOILING POINT: NOT AVAILABLE
FREEZING POINT: APPROXIMATELY 0° C (WATER)
PH: NOT AVAILABLE
COEFF. WATER/OIL
DISTRIBUTION: NOT AVAILABLE

SECTION IV FIRE OR EXPLOSION HAZARD

CONDITIONS OF FLAMMABILITY: NOT FLAMMABLE
MEANS OF EXTINCTION: NOT APPLICABLE
FLASHPOINT, METHOD OF DETERMINATION: NOT APPLICABLE
UPPER FLAMMABLE LIMIT: NOT APPLICABLE
LOWER FLAMMABLE LIMIT: NOT APPLICABLE
AUTO-IGNITION TEMPERATURE: NOT APPLICABLE
HAZARDOUS COMBUSTION PRODUCTS: MAY LIBERATE CARBON DIOXIDE, CARBON MONOXIDE AND SULPHUR DIOXIDE
EXPLOSION DATA,
SENSITIVITY TO MECHANICAL IMPACT: NONE
SENSITIVITY TO STATIC DISCHARGE: NONE

SECTION V REACTIVITY DATA

CONDITIONS UNDER WHICH PRODUCT IS CHEMICALLY UNSTABLE
NAME OF INCOMPATIBLE SUBSTANCES:

NONE KNOWN
CHROME ORE CAN REACT AT HIGH TEMPERATURES WITH MOLTEN ALKALIES AND ALKALI VAPOURS TO FORM HAZARDOUS SOLUBLE CHROMIUM SALTS.
NONE KNOWN
MAY RELEASE CARBON DIOXIDE, CARBON MONOXIDE AND SULPHUR DIOXIDE WHEN HEATED ABOVE 260°C.
METAL FUMES MAY BE RELEASED WHEN GLAZE FIRED.

CONDITIONS OF REACTIVITY:
HAZARDOUS DECOMPOSITION PRODUCTS:

SECTION VI TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY SKIN CONTACT: POSSIBLE IRRITANT ECZEMATOUS DERMATITIS HAS BEEN REPORTED FOR SOME TRIVALENT CHROMIUM COMPOUNDS (SUCH AS CHROMITE ORE). SOME COBALT COMPOUNDS HAVE BEEN SHOWN TO PRODUCE DERMATITIS AND SENSITIZATION.

SKIN ABSORPTION: NONE

EYE CONTACT: REFER TO EFFECTS OF ACUTE EXPOSURE.

INHALATION: MAY CAUSE DAMAGE TO THE LUNGS BY INHALATION OF DUST. SEE SENSITIZATION.

INGESTION: UNLIKELY TO BE TOXIC BY INGESTION. MAY CAUSE ABDOMINAL PAIN AND NAUSEA.

EFFECTS OF ACUTE EXPOSURE: MAY CAUSE DRYING AND REDDENING OF THE SKIN. MAY CAUSE EYE IRRITATION.

EFFECTS OF CHRONIC EXPOSURE: OVEREXPOSURE TO RESPIRABLE CRYSTALLINE SILICA DUST MAY CAUSE:
1/ SILICOSIS, A FORM OF PROGRESSIVE PULMONARY FIBROSIS.
2/ SCLERODERMA, AN IMMUNE SYSTEM DISORDER MANIFESTED BY A FIBROSIS OF THE LUNGS, SKIN AND OTHER INTERNAL ORGANS.
SILICOSIS INCREASES THE RISK OF TUBERCULOSIS.
RECENT EVIDENCE SUGGESTS AN ASSOCIATION BETWEEN RESPIRABLE EXPOSURE AND A HIGHER INCIDENCE OF KIDNEY LESIONS.
CRYSTALLINE SILICA INHALED FROM OCCUPATIONAL SOURCES IS CLASSIFIED (IARC) AS CARCINOGENIC TO HUMANS.
REPEATED AND PROLONGED EXPOSURE TO TRIVALENT CHROMIUM COMPOUNDS (AS DUST) MAY CAUSE DELAYED EFFECTS INVOLVING THE RESPIRATORY SYSTEM.

EXPOSURE LIMITS - TIME WEIGHTED AVERAGE EXPOSURE VALUES (TWAEV): **GLAZE FRIT: NOT ESTABLISHED;**

AS COMPONENT OXIDES:	CALCIUM	2.0 mg./m ³
	ALUMINUM	10.0 mg./m ³
	BORON	10.0 mg./m ³
FUSED AND CRYSTALLINE SILICON		0.1 mg./m ³
	SODIUM	N/A

AS COMPONENT OXIDES: **MAZERENE BLUE STAIN: NOT ESTABLISHED;**

	COBALT	0.1 mg./m ³
	SILICON	0.1 mg./m ³

CHROMITE ORE NOT ESTABLISHED;

IRRITANCY OF PRODUCT: REFER TO ROUTE OF ENTRY

SENSITIZATION OF PRODUCT: REFER TO SKIN CONTACT. INHALATION OF SOME COBALT COMPOUNDS MAY CAUSE AN IRRITATION OF RESPIRATORY ORGANS OF SENSITIVE PERSONS LEADING TO OBSTRUCTION OF AIRWAYS.

CARCINOGENICITY OF PRODUCT: REFER TO CHRONIC EFFECTS.
IARC CLASSIFIES COBALT AS POSSIBLY CARCINOGENIC TO HUMANS BASED ON ANIMAL STUDIES. SOLUBLE CHROMIUM COMPOUNDS, WHICH ARE KNOWN TO BE HUMAN CARCINOGENS, MAY BE PRODUCED IF INSOLUBLE CHROMITE ORE IS CHEMICALLY ALTERED THROUGH REACTION WITH ALALIES AT HIGH TEMPERATURES.

TERATOGENICITY OF PRODUCT: NO KNOWN EFFECTS

MUTAGENICITY OF PRODUCT: NO KNOWN EFFECTS

SYNERGISTIC MATERIALS: NONE KNOWN

SECTION VII PREVENTATIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT TO BE USED: THIS PRODUCT HAS BEEN SPECIFICALLY FORMULATED FOR BRUSH APPLICATION. USERS WHO APPLY BY SPRAYING ARE ADVISED TO WEAR SAFETY GLASSES AND AN APPROPRIATE RESPIRATOR (REFER TO EXPOSURE LIMITS). USERS WHO APPLY BY DIPPING ARE ADVISED TO WEAR RUBBER GLOVES TO PREVENT SKIN IRRITATION.

ENGINEERING CONTROLS TO BE USED: NONE FOR BRUSH APPLICATION. THE USE OF VENTILATING EQUIPMENT IS RECOMMENDED FOR SPRAY APPLICATION. THIS PRODUCT CONTAINS CELLULOSE GUM (~1%) AND A PRESERVATIVE (<0.1%). ABOVE 227°C, CARBON MONOXIDE, CARBON DIOXIDE AND SMOKE ARE RELEASED AS THE GUM IS BURNT OFF. HYDROCHLORIC ACID, FORMALDEHYDE, SO_x AND NO_x VAPOURS MAY BE LIBERATED WHEN THE PRESERVATIVE IS FIRED OUT. AT HIGH TEMPERATURES, METAL FUMES MAY BE LIBERATED.
WHEN FIRING, USE A DOWNDRAFT OR OVERHEAD HOOD-TYPE EXHAUST.

SECTION VII PREVENTATIVE MEASURES, CONTINUED

ENGINEERING CONTROLS TO BE USED:	NONE FOR BRUSH APPLICATION. THE USE OF VENTILATING EQUIPMENT IS RECOMMENDED FOR SPRAY APPLICATION. THIS PRODUCT CONTAINS CELLULOSE GUM (~1%) AND A PRESERVATIVE (<0.1%). ABOVE 227°C, CARBON MONOXIDE, CARBON DIOXIDE AND SMOKE ARE RELEASED AS THE GUM IS BURNT OFF. HYDROCHLORIC ACID, FORMALDEHYDE, SO _x AND NO _x VAPOURS MAY BE LIBERATED WHEN THE PRESERVATIVE IS FIRED OUT. AT HIGH TEMPERATURES, METAL FUMES MAY BE LIBERATED. WHEN FIRING, USE A DOWNDRAFT OR OVERHEAD HOOD-TYPE EXHAUST.
PROCEDURES TO BE FOLLOWED IN CASE OF SPILL: WASTE DISPOSAL:	CLEAN UP WITH SPONGE OR SPATULA. CAUTION: SPILLS ARE SLIPPERY. IN ACCORDANCE WITH LOCAL, PROVINCIAL AND FEDERAL LAWS. DO NOT EMPTY INTO WATER COURSES.
HANDLING PROCEDURES:	AVOID GENERATING MIST OR DUST. MAINTAIN GOOD PERSONAL HYGIENE. DO NOT EAT, DRINK OR SMOKE. WASH AFTER USE.
STORAGE REQUIREMENTS: SPECIAL SHIPPING INFORMATION:	DO NOT STORE NEAR FOODSTUFFS. NONE

SECTION VIII FIRST AID MEASURES

EYE EXPOSURE:	FLUSH THOROUGHLY WITH WATER FOR 15 MINUTES. SEEK MEDICAL ATTENTION IF IRRITATION PERSISTS.
SKIN EXPOSURE:	WASH THOROUGHLY AND APPLY MOISTURIZING HANDCREAM TO DRIED, REDDENED SKIN.
INGESTION:	INDUCE VOMITING BY GIVING 2 GLASSES OF WATER AND STICKING FINGER DOWN THROAT. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. SEEK MEDICAL ATTENTION.
INHALATION:	REMOVE TO FRESH AIR AND SEEK MEDICAL ATTENTION AS REQUIRED.

SECTION IX PREPARATION INFORMATION

MSDS PREPARED BY: JON WALLS
PREPARATION DATE: MAY 21, 2015

SOME INFORMATION REPORTED IN THIS MSDS REFERS TO CONSTITUENT OXIDES RATHER THAN TO THE COMPOUND OXIDES OF WHICH THEY ARE A PART. CERAMIC STAINS AND GLASS FRITS MAY HAVE MUCH DIFFERENT PROPERTIES THAN THEIR CONSTITUENT OXIDES. FOR MORE INFORMATION ON THE TOXICOLOGY OF CERAMIC OXIDES, SEE TOXICOLOGY: CERAMICS, GLASS AND METALLURGY BY ÉDOUARD BASTARACHE.

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