

**MATERIAL SAFETY DATA SHEET**

SECTION 1 - PRODUCT IDENTIFICATION AND USE		
PRODUCT IDENTIFIER: SPECTRUM LEAD FREE CRYSTALS CRO1 COBALT BLUE		PROD
PRODUCT USE: CERAMIC GLAZE		
MANUFACTURER'S NAME SPECTRUM GLAZES INC.		SUPP
STREET ADDRESS 40 HANLAN RD UNIT 33		STRE
CITY WOODBRIDGE PROVINCE ONTARIO		CITY
POSTAL CODE L4L 3P6 EMERGENCY TEL.NO.(905)851-8310		POST

SECTION 2 - HAZARDOUS INGREDIENTS	EXPOSURE LIMIT - AIR mg/m3-8 hr. TWA	
HAZARDOUS INGREDIENTS		%
*SILICA (SiO2)		35-40
Co		10-15
CrO3		0.5-1
ZnO		8-10
Fe2O3		0.4-0.5
NiO		0.4-0.5
* SILICA, CRYSTALLINE QUARTZ, (SiO2) IS CONSIDERED TO BE CARCINOGENIC BY IARC CLASS IIA.		
SEE SECTION 8		

SECTION 3 - PHYSICAL DATA		
PHYSICAL STATE GRANULAR	ODOUR AND APPEARANCE ODOURLESS SOLID	ODOUR THRESHOLD (PPM) N.A.
VAPOUR PRESSURE (mm Hg) N.A.	VAPOUR DENSITY (AIR=1)	EVAPORATION RATE N.A.
pH 6.5-7	SPECIFIC GRAVITY +1	COEFF. WATER/OIL DIST. N.A.

SECTION 4 - FIRE AND EXPLOSION DATA	
FLAMMABILITY YES__ NO X FLAMES UNDER WHICH CONDITIONS : THIS PRODUCT DOES NOT SUPPORT COMBUSTION MEANS OF EXTINCTION NO SPECIAL MEANS REQUIRED	
FLASHPOINT AND METHOD NONE	UPPER FLAMMABLE LIMIT (% BY VOLUME) N.A.
AUTOIGNITION TEMP.(C) N.A.	HAZARDOUS COMBUSTION PRODUCTS NONE
EXPLOSION DATA N.A. SENSITIVITY IMPACT N.A.	ACTIVITY TO STATIC DISCHARGE N.A.

SECTION 5 - REACTIVITY DATA	
CHEMICAL STABILITY YES X NO__ IF NO, UNDER WHICH CONDITIONS	
INCOMPATIBILITY WITH OTHER SUBSTANCES YES__ NO X IF SO WHICH ONES REACTIVITY	
REACTIVITY AND UNDER WHAT CONDITIONS: NO REACTIVITY	
HAZARDOUS DECOMPOSITION PRODUCT: MATERIAL IS STABLE, NO POLYMERIZATION BUT TOXIC FUMES MAY BE RELEASED WHEN MATERIAL IS MELTED.	

PRODUCT IDENTIFIER SPECTRUM LEAD FREE CRYSTALS			
SECTION 6 - TOXICOLOGICAL PROPERTIES			
ROUTE OF ENTRY SKIN CONTACT SKIN			
EFFECTS OF ACUTE EXPOSURE TO PRODUCT: SKIN IRRITATION DUE TO ABRASIVENESS. EYE EXPOSURE COULD CAUSE			
EFFECTS OF CHRONIC EXPOSURE TO PRODUCT: METAL FUMES IN THE VAPOURS FROM FIRING CERAMIC CRYSTALS MAY			
EXPOSURE LIMITS	IRRITANCY OF PRODUCT	SENSITIZATION TO PRODUCT	CARCINOGENICITY
TERATOGENICITY	REPRODUCTIVE TOXICITY	MUTAGENICITY	SYNERGISTIC PRODUCTS

SECTION 7 - PREVENTIVE MEASURES	
PERSONAL PROTECTIVE EQUIPMENT:	
GLOVES (SPECIFY) WORK GLOVES	RESP
FOOTWEAR (SPECIFY)	CLOT
ENGINEERING CONTROLS (SPECIFY, EG. VENTILATION, ENCLOSED PROCESS) VENTILATION SHOULD BE USED WHEN SPRAYING GLAZES.	
LEAK AND SPILL PROCEDURE: SCOOP INTO SUITABLE RECEPTACLE. DO NOT WASH DOWN DRAIN.	
WASTE DISPOSAL: SEND TO APPROVED SITE IN ACCORDANCE WITH REGULATIONS.	
HANDLING PROCEDURES AND EQUIPMENT: NO SPECIAL EQUIPEMENT NEEDED. FOLLOW STANDARD PLANT HYGIENE PROCEDURE.	
STORAGE REQUIREMENTS: STORE IN DRY AREAS.	
SPECIAL SHIPPING INFORMATION: PROTECT AGAINST PHYSICAL DAMAGE. DOT LABEL NON-REGULATED	

SECTION 8
THIS MIXTURE MAY CONTAIN-IN FRIT (TOXIC SUBSTANCES CONTROL ACT INVENTORY, CHEMICAL ABSTRACTS SERVICE NUMBER 65997-18-4) AND/OR OTHER TYPICAL CERAMIC RAW MATERIALS, INCLUDING PIGMENT (S) THAT BELONG TO THE MIXED METAL OXIDES PIGMENTS CLASS, (WHICH ARE THE
RESULT OF HIGH TEMPERATURE CALCINATIONS) AND ALTHOUGH THEY CONSIST OF METAL ATOMS AND OXYGEN ATOMS ARRANGED IN UNIQUE CRYSTAL STRUCTURES, THEIR TOXICOLOGICAL PROPERTIES ARE NOT CONSIDERED TO BE THOSE OF EITHER THE METAL OR THE METAL OXIDES-RATHER THEY AR
E MAN-MADE MINERALS WHICH CLOSELY DUPLICATE THE PROPERTIES OF THEIR NATURAL COUNTERPARTS, WHICH THEY CLOSELY RESEMBLE, BUT THEY MAY CONTAIN A SMALL AMOUNT OF THE RAW MATERIAL METAL OXIDES PUTTING THEM IN TH OSHA HAZARDOUS CATEGORY- THE FOLLOWING POTENTIAL
LY HAZARDOUS SUBSTANCES REFFERENCED BY FED/OHSHA IN CFR 1910.1200:

SECTION 9 - PREPARATION DATE OF MSDS		
PREPARED BY (GROUP, DEPARTMENT, ETC.) TECHNICAL DEPT.	PHONE NUMBER: (905) 851-8310	DATE