## MATERIAL SAFETY DATA SHEET

## SECTION 1 - PRODUCT IDENTIFICATION AND USE PRODUCT IDENTIFICATION NUMBER 1121 PRODUCT IDENTIFIER: SPECTRUM LEAD FREE GLAZE 1121 SATIN ZINC WHITE PRODUCT USE : CERAMIC GLAZE MANUFACTURER'S NAME SPECTRUM GLAZES INC. SUPPLIER'S NAME SPECTRUM GLAZES INC. STREET ADDRESS: 273 BOWES RD, UNIT A1 STREET ADDRESS: 273 BOWES RD, UNIT A1 CITY: CONCORD PROVINCE: ONTARIO CITY: CONCORD PROVINCE: ONTARIO POSTAL CODE: L4K1H8 EMERGENCY TEL(905)695-8355 POSTAL CODE: L4K1H8 EMERGENCY TEL(905)695-8355 SECTION 2 - HAZARDOUS INGREDIENTS HAZARDOUS INGREDIENTS 용 CAS NUMBER LD50 OF INGREDIENTS LC50 OF INGREDIENT (SPECIFY SPECIES AND ROUTE) (SPECIFY SPECIES) Si02 30-40 14808-60-7 ILV 15mg/m3 TLV/TWA K20 1-3 12136-45-7 CaO 15-20 1305-78-8 Na20 1-3 1313-59-3 1344-28-1 A1203 13-16 B203 3 - 41303-86-2 5-6 BaO 1304-28-5 ZrO2 3-5 1314-23-4 2-4 13463-67-7 TiO2 SECTION 3 - PHYSICAL DATA PHYSICAL STATE ODOUR AND APPEARANCE ODOUR THRESHOLD (PPM) LIQUID ODOURLESS LIOUID N.A. VAPOUR PRESSURE BOILING POINT(C) VAPOUR DENSITY EVAPORATION RATE FREEZING POINT (C) (mm Hg) N.A. (AIR=1)N.A. N.A. N.A. SPECIFIC GRAVITY pH 6.5-7 COEFF. WATER/OIL DIST. 1.6-2.0 SECTION 4 - FIRE AND EXPLOSION DATA FLAMES UNDER WHICH CONDITIONS : THIS PRODUCT DOES NOT SUPPORT COMBUSTION FLAMMABILITY YES NO X MEANS OF EXTINCTION NO SPECIAL MEANS REQUIRED FLASHPOINT AND METHOD UPPER FLAMMABLE LIMIT LOWER FLAMMABLE LIMIT (% BY VOLUME) N.A. (% BY VOLUME) N.A. NONE 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 NO X IF SO WHICH ONESREACTIVITY 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 1121 SATIN ZINC WHITE					
SECTION 6 - TOXICOLOGICAL PROPERTIES					
ROUTE OF ENTRY SKIN CONTACT	s sk	IN ABSORPTION X	EYE CONTACT X I	NHALATION	INGESTION X
EFFECTS OF ACUTE EXPOSURE TO PRODUCT: SKIN IRRITATION DUE TO ABRASIVENESS.  EYE EXPOSURE COULD CAUSE IRRITATION BUT NO TOXIC EFFECTS.					
EFFECTS OF CHRONIC EXPOSURE TO PRODUCT: METAL FUMES IN THE VAPOURS FROM FIRING CERAMIC GLAZES MAY CAUSE LUNG INFLAMATION AND DAMAGE TO KIDNEY AND NERVOUS SYSTEM.					
EXPOSURE LIMITS	LIMITS IRRITANO		SENSITIZATION TO PRODUCT		CARCINOGENICITY
TERATOGENCITY	REPRODUC	TIVE TOXICITY	MUTAGENICITY		SYNERGISTIC PRODUCTS
SECTION 7 - PREVENTIVE MEASURES					
PERSONAL PROTECTIVE EQUIPMENT:					
GLOVES (SPECIFY) WORK GLOVES		RESPIRATOR (SPECIFY) APPROVED DUST MASK		EYE (SPECIFY) SAFETY GLASSES	
FOOTWEAR (SPECIFY)		CLOTHING (SPECIFY)		OTHER (SPECIFY)	
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 - FIRST AID MEASURES					
SPECIFIC MEASURES: GLAZE CONTAINS THE OXIDES LISTED IN THE CHEMICAL FORMULA IN FORM OF CERAMIC FRIT. SOME OF THESE OXIDES ARE ON THE INGREDIENT DISCLOSURE LIST, ONCE THESE OXIDES ARE FUSED AND CONVERTED INTO FRIT THEY ARE NO LONGER AVAILABLE IN TOXIC FORM EVEN THOUGH TESTING WOULD DETECT THE PRESENCE OF THESE OXIDES. (FRIT IS ESSENTIALLY AN INSOLUBLE SUBSTANCE). THE OXIDES ARE PRESENT IN THE FORM OF A SINTERED CERAMIC STAIN OF LOW SOLUBILITY. THESE INGREDIENTS ARE PRESENT IN A STABLE AQUEOUS SUSPENSION.					
SECTION 9 - PREPARATION DATE OF MSDS					
PREPARED BY (GROUP, DEPARTME TECHNICAL DEPT.	ENT, ETC.)	PHONE NUMBER: (905)695-8355		DATE 15 OCTO	BER 2015