

**MATERIAL SAFETY DATA SHEET**

<b>SECTION 1 - PRODUCT IDENTIFICATION AND USE</b>		
PRODUCT IDENTIFIER : SPECTRUM LEAD FREE 913 OLD COPPER		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

<b>SECTION 2 - HAZARDOUS INGREDIENTS</b>				
HAZARDOUS INGREDIENTS	%	CAS NUMBER	LD50 OF INGREDIENTS (SPECIFY SPECIES AND ROUTE)	LC50 OF INGREDIENT (SPECIFY SPECIES)
SiO2	25-33	14808-60-7	ILV 15mg/m3 OSHA/TWA	
CaO	5-10			
Na2O	2-5	1305-78-8		
Al2O3	3-7	1344-28-1		
B2O3	4-8	10043-35-3		
ZnO	19-23	1314-13-2		
Fe2O3	.5-1.5	1309-37-1		
MgO	1-2			
ZrO2	6-9	7440-67-2		
MnO2	.25-1	1313-13-9		
CuO	1-2	1317-38-0		

<b>SECTION 3 - PHYSICAL DATA</b>		
PHYSICAL STATE LIQUID	ODOUR AND APPEARANCE ODOURLESS LIQUID	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 1.6-2.0	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 913 OLD			
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 GLAZES 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 - 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 FOR
M 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, DEPARTMENT, ETC.) TECHNICAL DEPT.	PHONE NUMBER: (905) 851-8310	DATE