

**MATERIAL SAFETY DATA SHEET**

<b>SECTION 1 - PRODUCT IDENTIFICATION AND USE</b>		
PRODUCT IDENTIFIER : SPECTRUM LEAD FREE 704 CHARCOAL		PRO
PRODUCT USE : CERAMIC GLAZE		
MANUFACTURER'S NAME SPECTRUM GLAZES INC.		SUP
STREET ADDRESS 40 HANLAN RD UNIT 33		STR
CITY WOODBRIDGE PROVINCE ONTARIO		CIT
POSTAL CODE L4L3P6 EMERGENCY TEL.(905)851-8310		POS

SECTION 2 - HAZARDOUS INGREDIENTS				
HAZARDOUS INGREDIENTS	%	CAS NUMBER	LD50 OF INGREDIENTS (SPECIFY SPECIES AND ROUTE)	LC50 OF INGREDIENT (SPECIFY SPECIES)
SiO2	20-30		ILV 15mg/m3 OSHA/TWA	
ZnO	4-8			
CaO	3-5	1305-78-8		
Na2O	1-3			
Al2O3	8-12	1344-28-1		
B2O3	8-12			
ZrO2	8-12			
CoO	1-2	7440-48-4	.1	
Fe2O3	1/2-1		5.0	
Cr2O3	1-2		.5	

SECTION 3 - PHYSICAL DATA		
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 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 704			
SECTION 6 - TOXICOLOGICAL PROPERTIES			
ROUTE OF ENTRY SKIN CONTACT SKIN			
EFFECTS OF ACUTE EXPOSURE TO PRODUCT: SKIN IRRITATION DUE TO AGGRESSIVENESS			
EFFECTS OF CHRONIC EXPOSURE TO PRODUCT: METAL FUMES IN THE HAZARDOUS FROM FIBRING			
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	RES
FOOTWEAR (SPECIFY)	CLO
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, DEPARTMENT, ETC.) TECHNICAL DEPT.	PHONE NUMBER: (905) 851-8310	DATE