

**MATERIAL SAFETY DATA SHEET**

<b>SECTION 1 - PRODUCT IDENTIFICATION AND USE</b>				
PRODUCT IDENTIFIER : SPECTRUM LEAD FREE 154 WROUGHT IRON			PRODUCT IDENTIFICATION NUMBER 154	
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	
<b>SECTION 2 - HAZARDOUS INGREDIENTS</b>				
HAZARDOUS INGREDIENTS	%	CAS NUMBER	LD50 OF INGREDIENTS (SPECIFY SPECIES AND ROUTE)	LC50 OF INGREDIENT (SPECIFY SPECIES)
SiO2	35-45	14808-60-7	ILV 15mg/m3 TLV/TWA	
CaO	4-8	1305-78-8		
Al2O3	6-12	1344-28-1		
B2O3	6-12	1303-86-2		
Fe2O3	1-6	1309-37-1		
CuO	5-10	1317-38-0		
TiO2	.5-13	1317-70-0		
MnO2	3-12	1313-13-9		
<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.	BOILING POINT (C) N.A.	FREEZING POINT (C) N.A.
pH 6.5-7	SPECIFIC GRAVITY 1.6-2.0	COEFF. WATER/OIL DIST. N.A.		
<b>SECTION 4 - FIRE AND EXPLOSION DATA</b>				
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.	LOWER 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.	
<b>SECTION 5 - REACTIVITY DATA</b>				
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 154 WROUGHT IRON			
<b>SECTION 6 - TOXICOLOGICAL PROPERTIES</b>			
ROUTE OF ENTRY X SKIN CONTACT SKIN ABSORPTION X EYE CONTACT X INHALATION INGESTION			
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 INFLAMMATION AND DAMAGE TO KIDNEY AND NERVOUS SYSTEM.			
EXPOSURE LIMITS	IRRITANCY OF PRODUCT	SENSITIZATION TO PRODUCT	CARCINOGENICITY
TERATOGENCITY	REPRODUCTIVE TOXICITY	MUTAGENICITY	SYNERGISTIC PRODUCTS
<b>SECTION 7 - PREVENTIVE MEASURES</b>			
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			
<b>SECTION 8 - FIRST AID MEASURES</b>			
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.			
<b>SECTION 9 - PREPARATION DATE OF MSDS</b>			
PREPARED BY (GROUP, DEPARTMENT, ETC.) TECHNICAL DEPT.	PHONE NUMBER: (905) 695-8355	DATE 15 JAN.2015	