

**MATERIAL SAFETY DATA SHEET**

SECTION 1 - PRODUCT IDENTIFICATION AND USE		
PRODUCT IDENTIFIER : SPECTRUM LEAD FREE GLAZE 210 MINIMIZER		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			
<p>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, RESULT OF HIGH TEMPERATURE CALCINATIONS) AND ALTHOUGH THEY CONSIST OF METAL ATOMS AND OXYGEN ATOMS ARRANGED IN UNIQUE CRYSTAL STRUCTURES, THEIR TOXICOLOGICAL PROPERTIES DO NOT NEARLY DUPLICATE THE PROPERTIES OF THEIR NATURAL COUNTERPARTS, WHICH THEY CLOSELY RESEMBLE, BUT THEY MAY CONTAIN SMALL AMOUNT OF THE RAW HAZARDOUS SUBSTANCES REFERENCED BY FED/OSHA IN CFR 1910.1200. ONCE THESE OXIDES ARE FUSED AND CONVERTED INTO FRIT THEY ARE NO LONGER AVAILABLE IN TOXIC FORM EVEN THOUGH (THEIR PRESENCE WOULD BE DETECTED BY ANALYSIS). THE OXIDES ARE PRESENT IN THE FORM OF A SINTERED CERAMIC STAIN OF LOW SOLUBILITY. THESE INGREDIENTS ARE PRESENT IN A STABLE AQUEOUS</p>			
HAZARDOUS INGREDIENTS	%	CAS NUMBER	EXPOSURE LIMIT - AIR mg/m <sup>3</sup> - 8 hr. TWA
			OSHA PEL
SiO <sub>2</sub>	10-14	14808-60-7	10mg/m <sup>3</sup> %SiO <sub>2</sub> +2
B <sub>2</sub> O <sub>3</sub>	2-3	1308-86-2	10.0 TOTAL DUST 5.0 RESP. DUST

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 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 210			
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	
EYE: FLUSH THOROUGHLY WITH POTABLE WATER FOR 15 MINUTES. SKIN: REMOVE CONTAMINATED CLOTHING. WASH THOROUGHLY WITH SOAP AND WATER. INHALATION: REMOVE TO FRESH AIR. MAY GIVE OXYGEN. INGESTION: INDUCE VOMITING IF CONSCIOUS. AFTER FIRST-AID, GET APPROPRIATE	
IN-PLANT PARAMEDIC OR COMMUNITY MEDICAL SUPPORT.	

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