SAFETY DATA SHEET

83467-1024

01/01/2026

SECTION I - IDENTIFICATION

Material Name
SPECTRUM CERAMIC STAIN 2200 WHITE

2200 White is a mixture of Zirconium Silicate, Quartz and Aluminum Silicate.

Company Information

Spectrum Glazes Inc.
273 Bowes Rd, Unit A1
Concord, ON L4K 1H8
Phone: 905-695-8355
Fax: 905-695-8354
Email: sales@spectrumglazes.com

For transportation emergencies only call: 905-695-8355.

For health emergencies call the Poison Control Center: 1-800-222-1222.

SECTION II - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200

GHS Label Elements

Symbol(s)

Signal Word
Danger

Hazard Statement(s)
Harmful if swallowed. May be harmful in contact with skin. May cause an allergic skin reaction. May be harmful if inhaled. May cause respiratory distress. May cause cancer via inhalation. Causes damage to lungs through prolonged or repeated exposure by inhalation.

Precautionary Statement(s)
Avoid breathing dust. Do not get in eyes or on skin. Wash hands thoroughly after handling.

Prevention
Do not handle until all safety precautions have been read and understood. Do not breath dust. Wash hands thoroughly after handling. Do not eat, drink, or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

Response
Call a POISON CENTER/doctor if you feel unwell. Get medical advice/attention. Get medical advice/attention if you feel unwell. Rinse mouth. Wash contaminated clothing before reuse. Collect spillage. IF SWALLOWED: Immediately call a POISON CENTER/doctor. IF ON SKIN: Wash with plenty of water. If exposed or concerned: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention.

SECTION III - COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

Ingredient Name	CAS Registry Number	Typical Weight %	GHS Classification
ZIRCONIUM SILICATE	14940-68-2	96-97	Not classified
QUARTZ	14808-60-7	2-3	Carcinogen Category 1A STOT Rep Exp Category 1*
ALUMINUM SILICATE	1302-76-7	<2.0	Not classified

SECTION IV - FIRST AID MEASURES

Get prompt medical advice/attention if you feel unwell. Rinse mouth. IF SWALLOWED: Induce vomiting immediately as directed by medical personnel. Immediately call a POISON CENTER/doctor. Never give anything by mouth to an unconscious person. IF ON SKIN: Wash with plenty of water. If exposed or concerned: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. IF INHALED: Remove to fresh air. Get prompt medical attention. Exposure should be maintained below the TLV (see Section VIII) achieved preferably through the provision of adequate ventilation. When exposure cannot be adequately controlled in this way, personal respiratory protection should be employed.

Most important symptoms/effects, acute and delayed: Particulates may cause abrasive eye injury. Inhalation of dust may cause respiratory tract irritation. Symptoms of exposure may include cough, sore throat, nasal congestion, sneezing, wheezing and shortness of breath. Prolonged inhalation of crystalline silica above certain concentrations may cause lung diseases, including silicosis and lung cancer.

SECTION V - FIRE FIGHTING MEASURES

FLASH POINT (METHOD): N/A
EXPOSION LIMITS IN AIR (% BY VOLUME): NOT EXPOLSIVE
EXTINGUISHING MEDIA: NO SPECIAL METHOD REQUIRED
FIRE FIGHTING PROCEDURES: NO SPECIAL FIRE FIGHTING PROCEDURES REQUIRED
UNUSUAL FIRE & EXPLOSION HAZARDS: NOT COMBUSTIBLE

SECTION VI - ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

STEPS TO BE TAKEN IN CASE A MATERIAL IS SPILLED: Clean up in accordance with all applicable regulations. Absorb spillage with non-combustible, absorbent material. For waste disposal see Section XIII. Stop the leak, if possible. Ventilate the area involved. Sweep up, place in container for recovery or disposal. Reduce dust spreading with water spray. Prevent waterway contamination. Protect workers with water spray. Collect run-off water and transfer to drums or tanks for later disposal. Avoid creating dust. Dispose of in accordance with federal, state and local regulations.

SECTION VII - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE: Wear suitable gloves, glasses and face protection. Good industrial hygiene practice requires that exposure be maintained below the TLV. This is preferably achieved through the provision of adequate ventilation. When exposure cannot be adequately controlled in this way, personal respiratory protection should be employed. This material is not hazardous under normal storage conditions. However, material should be stored in closed containers, in a secure area to prevent container damage and subsequent spillage.

SECTION VIII - EXPOSURE CONTROLS / PERSONAL PROTECTION

	ACGIH-TLVs	OSHA PELS	NOISHA RELs
	mg/m3	mg/m3	mg/m3
Zirconium Silicate (as Zr)	10 (total)	15 (total)	5
	5 (respirable)	5 (respirable)	15 min.C
Silica, Crystalline (SiO2)	0.1	10	0.05

RESPIRATORY PROTECTION AND SPECIAL VENTILATION REQUIREMENTS: Use a locally exhausting hood appropriate for the operation. Use with ventilation adequate to keep exposure within published exposure limits (SEE SECTION III). Use NIOSH certified mask for dusts or mists if exposure levels exceed published exposure limits (SEE SECTION III).
OTHER PROTECTIVE EQUIPMENT (GLOVES, GOGGLES, ETC.): Where there is potential for eye contact, wear chemical goggles and have eye flushing equipment immediately available. Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact.
WORK/HYGIENE PRACTICES: Avoid prolonged contact with skin. Wash hands immediately after use. When using do not eat, drink, or smoke. Rinse contaminated skin promptly. Wash contaminated clothing and clean protective equipment before reuse.
ENGINEERING CONTROLS: Keep in original container. NOT FOR USE IN HEALTH CARE FACILITIES. KEEP OUT OF REACH OF CHILDREN.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: N/A
MELTING POINT: N/A
VAPOUR PRESSURE: N/A
SPECIFIC VAPOUR DENSITY
SPECIFIC GRAVITY: N/A
SOLUBILITY IN WATER: N/A
REACTIVITY IN WATER: NON-REACTIVE

SECTION X - STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION PRODUCTS: N/A
STABILITY: This material is chemically stable under normal storage and handling conditions.
INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS: Zircon sand will disassociate to Zirconium Dioxide (ZrO2) and Silicon Dioxide (SiO2) when heated above 1540 degrees Celsius.

SECTION XI - TOXOLOGICAL INFORMATION

Potential Health Effects
INHALATION: May cause respiratory tract irritation.
INGESTION: May be harmful if swallowed.
SKIN: May cause skin irritation.
EYES: May cause eye irritation.

Data on this material and/or its components are summarized below.

Zirconium Silicate
Following single or repeated intraperitoneal doses, this material was considered to be physiologically inert. Following repeated inhalation exposure to dust of this material, radiographic lung shadows were reported in rats: however, histological examination of the lung tissues showed no changes. Following implantation of a disc of this material into the muscle tissue of rabbits, histological examination of the surrounding tissues did not show any effects that were different from other materials used in medical implants. This material contains trace quantities of naturally occurring radioactive uranium, thorium and radium (106-120 Pico curies/gram). Overexposure to respirable dusts containing radioactive uranium, thorium and radium may cause lung cancer.(Zircon is exempt from NRC regulations for source material per 10 CFR 40, since it falls under the definition of material containing less than 0.05% uranium or thorium. However, calculations show that observance of 2.2-2.8 mg/m3 of respirable dust will, under voluntary guidelines, ensure that intake is less than 10% of the annual limits on intake (ALIS) specified in 10 CFR 20.1502(B) and NRC standards for protection against uranium, thorium, radium and radioactive daughter decay products.

Zirconium and Zirconium Compounds
Single exposure (acute) studies indicate that zirconium and zirconium compounds are slightly toxic to mice, rats and guinea pigs if swallowed (LD50 990 to 2290 mg/kg (insoluble zirconium salts)) and practically non-toxic to rats, guinea pigs, rabbits, cats and dogs if inhaled (LC50 >6 mg/l).

Aluminum Silicate
Workers exposed to a hydrated clay of this material have been reported to have experienced lung effects ranging from mild pneumoconiosis, a disabling lung change, to progressive pulmonary fibrosis and emphysema. Exposure to the anhydrous form of this material used for refractory and porcelain manufacture has been reported to cause interstitial pulmonary fibrosis in workers and in experimental animals: these findings are complicated by the presence of cristobalite. Another report has indicated that occupational exposure to this material in kitty litter dust caused pulmonary fibrosis: however, further evaluation of these workers and lack of pulmonary toxicity in animals from instillation of this material in the lungs suggests that smoking behaviour may have been the most significant causative factor. Oral administration of aluminum silicate to dogs and rats showed no evidence of toxicity to kidneys or other organs. In vitro studies and long-term inhalation studies with this material have shown aluminum silicate to be less cytotoxic and carcinogenic than other inorganic fiber dusts. Other studies have suggested an association between aluminum and neurological degenerative diseases, including Alzheimer's disease, dialysis dementia and reduced neural-motor functions. In aluminum sensitive animal species, such as cats and rabbits, a pathalogical change noted in neurons is an accumulation of neurofibrillary tangles. Neurofibrillary tangles and increased brain levels of aluminum are also observed in patients with Alzheimer's disease and dialysis dementia: however, these tangles are associated with a variety of neurological disorders. Because there are scientific questions regarding these studies, the causative association between aluminum and these disorders has not been demonstrated. In a study of occupationally exposed workers to aluminum dusts, no increased mortality from Alzheimer's disease or other neurological diseases was noted.

Quartz
Chronic inhalation of crystalline silica may cause a progressive pneumoconiosis (silicosis), a form of disabling lung disease (pulmonary fibrosis). Data from animal studies on crystalline forms of silica confirm the capacity of free crystalline silica to induce fibrinogenic response in lungs. Studies on a variety of laboratory animals (rats, guinea pigs, rabbits and monkeys) using inhalation as well as intratracheal routes of exposure indicate the ability of crystalline silica to produce silicosis similar to that seen in humans. In addition, experiments in animals have confirmed human experience that the presence of crystalline silica in the lung increased susceptibility to tuberculosis and other lung infections. Crystalline silica inhaled in the form of quartz is classified as "carcinogenic to humans" by the International Agency for Research on Cancer (IARC), and respirable forms of crystalline silica are listed as substances that "may reasonably be anticipated to be carcinogens" by the National Toxicology Program. The IARC listing is based on the determination that there is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica in the form of quartz from occupational exposures. Epidemiology studies cited by IARC give indications of increased risk for lung cancer from inhaled crystalline silica (quartz) resulting from occupational exposure. Studies involving heavy industrial exposure to silica in granite and foundry workers, brick factories and sandblasting produced increased levels of protein and enzymes in urine, which is indicative of kidney damage.

SECTION XII - ECOLOGICAL INFORMATION

ECOTOXICITY Zirconium is moderately toxic to green algae (96-hr EC50 2.6 mg/l), no more than slightly toxic to rainbow trout (96-hr LC50 >20 mg/l), slightly to moderately toxic to bluegill sunfish (96-hr LC50 15-240 mg/l) and slightly toxic to practically non-toxic to fathead minnow (96-hr LC50 14-115 mg/l).
DEGRADABILITY Zirconium is an element and will not degrade. It occurs in the environment in insoluble forms which remain unavailable to living organisms.
MOBILITY No Data
BIOACCUMUATIVE No Data

SECTION XIII - DISPOSAL CONSIDERATIONS

RCRA HAZARD CLASS (40 CFR 261): THIS PRODUCT IS NOT CLASSIFIED AS A HAZARDOUS WASTE.
WASTE DISPOSAL METHOD: DISPOSE OF IN ACCORDANCE FEDERAL, STATE, AND LOCAL REGULATIONS.

SECTION XIV - TRANSPORTATION INFORMATION

U.S.DOT (49 CFR 172.101): THIS IS NOT A HAZARDOUS MATERIAL AS CLASSIFIED BY CFR 172.101.

SECTION XV - REGULATORY INFORMATION

CONTENTS OF THIS SDS COMPLY WITH OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200.

EPA SARA TITLE III CHEMICAL LISTINGS:
SECTION 302.4 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):
NONE

INTERNATIONAL REGULATIONS

CANADIAN WHMIS: THIS PRODUCT IS NOT A CONTROLLED PRODUCT UNDER CANADA'S WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. IT CONTAINS THE FOLLOWING TOXIC OR HIGHLY TOXIC MATERIALS:
Quartz

SUPPLEMENTAL STATE COMPLIANCE INFORMATION:

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED UNDER NEW JERSEY'S RIGHT TO KNOW PROGRAM:
Aluminum silicate
Quartz
Zirconium Silicate

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) REQUIRING NOTIFICATIOJN TO THE STATE OF WASHINGTON UNDER THEIR CHILDREN'S SAFE PRODUCTS ACT:
Quartz

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED IN FLORIDA'S TOXIC SUBSTANCE LIST:
Quartz

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED IN MAINE'S PRIORITY CHEMICAL LIST:
Quartz

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) CONSIDERED BY VERMONT AS BEING OF VERY HIGH CONCERN TO CHILDREN:
Quartz

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED IN MASSACHUSETTS' HAZARDOUS SUBSTANCE LIST:
Aluminum silicate
Quartz
Zirconium Silicate

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED IN MICHIGAN'S CRITICAL MATERIALS REGISTER:
Quartz

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED ON MINNESOTA'S HAZARDOUS SUBSTANCES LIST:
Quartz

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED IN PENNSYLVANIA'S HAZARDOUS SUBSTANCES LIST:
Aluminum silicate
Quartz
Zirconium Silicate

Under CPSC's consumer products regulations (16 CFR 1500.3 and 1500.14), this product has the following required acute and chronic hazard labelling:

PRECAUTIONS: Avoid prolonged contact with skin. Keep in original container. Wash hands immediately after use. When using do not eat, drink or smoke. **AVOID USING IF PREGNANT OR CONTEMPLATING PREGNANCY. NOT FOR USE IN HEALTH CARE FACILITIES. KEEP OUT OF REACH OF CHILDREN.**
FIRST AID TREATMENT: If inhaled or swallowed, get prompt medical attention.
For further health information contact a poison control center or call 1-800-970-1970.

SECTION XVI - OTHER INFORMATION

Disclaimer: We believe the statements, technical information, and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to the specific materials as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.