

## MATERIAL SAFETY DATA SHEET

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SECTION I: Product Identification and Use

Product Name: WAM™ 80 ULC Product Identification No.: Not Applicable  
NFPA/WHMIS Rating: 2-0-0  
Product Use: Castable Refractory Formula: Not Applicable  
Chemical Name/Synonym: Not Applicable Chemical Family: Not Applicable

SECTION II: Hazardous Ingredients

Hazardous Ingredients	%	CAS No.	TLV TWA (mg/m <sup>3</sup> )*	LD <sub>50</sub>	LC <sub>50</sub>
Crystalline Silica	13 - 32	Not Applicable	Not applicable	Not Applicable	Not Applicable
Above includes: Quartz		14464-46-1	0.05	Not Applicable	Not Applicable
Cristobalite		15468-32-3	0.05	Not Applicable	Not Applicable
Tridymite		14808-60-7	0.1	Not Applicable	Not Applicable
Calcium Aluminate Cement	1 - 10	12042-68-1	10 total / 3 respirable	Not Applicable	Not Applicable

\* Source: American Conference of Governmental Industrial Hygienists (ACGIH); TL V-TWA for Crystalline Silica are for the respirable fraction of particulate matter.

SARA Title III Section 313 Toxic Chemicals: None

Calcium Aluminate Cement is a low health risk by inhalation and should be treated as a nuisance dust.

SECTION III: Physical Data

Appearance and Odor: Granular Mixture, White to Gray Color, Earthy Odor  
Physical State: Solid  
Percent Volatile by Volume: 0  
Odor Threshold: Not Available  
Boiling Point (°C): Not Applicable  
Specific Gravity (g/cc): 1.5

Freezing Point (°C): Not Applicable  
pH (10% Solids): 8-10  
Vapor Density (Air=1): Not Applicable  
Solubility in Water: Slight  
Vapor Pressure (mmHg): Not Applicable  
Coefficient of Oil/Water Dist: Not Available  
Evaporation Rate: Not Applicable

SECTION IV: Fire and Explosion Hazard Data

Flammability: Product is non-flammable and will not support combustion.  
Means of Extinction: Not Applicable  
Auto-Ignition Temperature (°C): Not Applicable  
Flashpoint (°C) and Method: Not Applicable  
Hazardous Combustion Products: Not Applicable

Upper Flammable Limit (o/v): Not Applicable  
Explosion Sensitivity to Impact: Not Applicable  
Lower Flammable Limit (o/v): Not Applicable  
Explosion Sensitivity to Static Discharge: Not Applicable

SECTION V. Reactivity Data

Stability: Stable  
Hazardous Decomposition Products: None  
Incompatibility: Concentrated Acids

Hazardous Polymerization: Will Not Occur  
Reactivity: Hydraulic Setting

SECTION VI: Health Hazard/Toxicological DataRoute of Entry:

Skin Contact: Yes  
Skin Absorption: No  
Eye Contact: Yes

Inhalation: Yes  
Ingestion: Yes

Effects of Acute Exposure to Product:

Skin: May irritate skin.  
Eye: May irritate and/or abrade eyes.  
Inhalation: Congestion of the throat, nasal passages, and upper respiratory system.  
Ingestion: Unknown.

Effects of Chronic Exposure to Product:

Skin: None Known

Eye: None Known

Inhalation: According to the International Agency for Research on Cancer (IARC), there is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica in the form of quartz or cristobalite from occupational sources.

Ingestion: Unknown.

Exposure Limits: See Section II

Teratogenicity: None Known

Reproductive Toxicity: None Known

Mutagenicity: None Known

Irritancy of Product: Moderate irritation may occur.

Sensitization to the Product: None Known

Synergistic Materials: None Known

Carcinogenicity: Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group I IARC).

California Proposition 65: This product contains crystalline silica, a chemical known to the state of California to cause cancer.

SECTION VII: Preventive Measures, and Spill or Leak Procedures

Personal Protective Equipment:

Gloves: Protective Gloves

Eye: Goggles or Safety Glasses with Side Shield

Clothing: Long Sleeved and Legged

Respirator: NIOSH Approved Respirator

Footwear: Safety Shoes (Not Essential)

Other: None Known

Engineering Controls: General mechanical ventilation is normally adequate.

Leak and Spill Procedure: Dry material may be swept, shoveled, or vacuumed up. Return clean, dry material to original container, or dispose. Place wet material in a container for disposal.

Waste Disposal: The tearout and disposal of this product may generate dust. During tearout, observe the exposure limits outlined in Section II, and the personal protection precautions in Section VII. Dispose in accordance with Federal, State and Local regulations.

Handling Procedures: Follow good housekeeping and hygienic practices.

Storage Requirements: Store in a dry place.

Special Shipping Information: Not regulated by USA DOT, Canadian TDB Class, and PIN.

SECTION VIII: First Aid Measures

Skin: Wash with soap and water. If irritation occurs, seek medical attention.

Eyes: Flush with clean water for 15 minutes. Seek medical attention.

Inhalation: Remove to dust free area and fresh air. If continuing respiratory distress, seek medical attention.

Ingestion: Seek medical attention immediately. Unless instructed by physician, do not induce vomiting. Product is non-toxic as supplied, but its abrasive nature may damage internal organs.

SECTION IX: Other Information

This information and recommendations set forth herein are taken from sources believed to be accurate as of the date herein; however, Westmoreland Advanced Materials, LLC. makes no warranty with respect to the accuracy of the information or the suitability of the recommendations, and assumes no liability to any user thereof.