



Material Safety Data Sheet

Section 1 – Product and Company Information

Product Name: Vertex

Emergency Telephone Number:
InfoTrac: 800-535-5053

Manufacturer: Architectural Enhancements
475 Annandale Blvd
PO Box 1124
Annandale, MN 55302

Telephone Number for Information:
320-274-6909

Date Prepared: 12/24/08

Signature of Preparer: Will Christenson

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Section 2 – Hazardous Ingredients

Compound	CAS #	OSHA PEL		ACGIH TLV
		Total Dust	Respirable Dust	TWA
Portland Cement clinker	65997-15-1	15 mg/m ³	5 mg/m ³	10 mg/m ³
Di-calcium Silicate	10034-77-2	15 mg/m ³	5 mg/m ³	3 mg/m ³
Tri-calcium Aluminate	12042-78-3	15 mg/m ³	5 mg/m ³	3 mg/m ³
Tetra-calcium- Alumino-ferrite	12068-35-8	15 mg/m ³	5 mg/m ³	3 mg/m ³
Calcium Sulfate		15 mg/m ³	5 mg/m ³	3 mg/m ³
Calcium Hydroxide	1305-62-0	5 mg/m ³		5 mg/m ³
Gypsum	13397-24-5	10 mg/m ³	5 mg/m ³	10 mg/m ³
Chromates	(various)	0.1 mg/m ³		0.05 mg/m ³
Tri-calcium Silicate	12168-85-3	15 mg/m ³	5 mg/m ³	3 mg/m ³
Magnesium Oxide	1309-48-4	15 mg/m ³	5 mg/m ³	3 mg/m ³
Crystalline Silica	14808-60-7	10 mg/m ³		0.025 mg/m ³
Hexavalent Chromium	18540-29-9	100 mg/m ³		
Dolomite	16389-88-1	15 mg/m ³		10 mg/m ³
Talc	14807-96-6	0.5 mg/m ³		2 mg/m ³
Magnesium Hydroxide	1309-42-8	n/a		n/a
Vermiculite	1318-00-9	15mg/m ³	5 mg/m ³	10mg/m ³

Section 3 – Physical/Chemical Characteristics

Boiling Point: Not Applicable

Specific Gravity: 2.74

Vapor Pressure: Not Applicable

Melting Point: Not Applicable

Vapor Density: Not Applicable

Evaporation Rate: Not Applicable

Solubility in Water: Slightly soluble <1%.

Appearance and odor: Gray powder with no distinguishable odor.

Section 4 – Fire and Explosion Hazard Data

Flash Point: None

Flammable Limits: LEL, None

UEL, None

Extinguishing Media: Use a dry chemical fire extinguisher or water.

Special Fire Fighting Procedures: Keep people away and isolate fire zone. Soak thoroughly with water to cool and prevent re-ignition. Use fine water spray or foam. Cool surroundings with water to localize fire zone. Dust explosion hazard may result from forceful application of fire extinguishing agents.

Unusual Fire and Explosion Hazards: Do not permit dust to accumulate. When suspended in air dust can pose an explosion hazard. Minimize ignition sources. If dust layers are exposed to elevated temperatures, spontaneous combustion may occur. Pneumatic conveying and other mechanical handling operations can generate combustible dust. To reduce the potential for dust explosions, electrically bond and ground equipment and do not permit dust to accumulate. Dust can be ignited by static discharge. Dense smoke is produced when product burns.

Section 5 – Reactivity Data

Stability/Instability: Stable.

Conditions to Avoid: Avoid temperatures above 30 °C (86 °F). Exposure to elevated temperatures can cause product to decompose. Avoid static discharge. Avoid moisture. Avoid direct sunlight.

Incompatible Materials: Avoid contact with oxidizing materials. Avoid contact with: Strong acids.

Hazardous Polymerization: Will not occur.

Thermal Decomposition: Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aldehydes. Alcohols. Organic acids.

Section 6 – Health Hazard Data

Routes of Entry: Eye contact, skin contact, inhalation, and ingestion.

Effects Resulting from Eye Contact: Exposure to airborne dust may cause immediate or delayed irritation or inflammation. Eye contact by large amounts of dry powder or splashes of wet portland cement may cause effects ranging from moderate eye irritation to chemical burns or blindness. Such exposures require immediate first aid (See Section 4) and medical attention to prevent significant damage to the eye.

Effects Resulting from Skin Contact: Discomfort or pain cannot be relied upon to alert a person to hazardous skin exposure. Consequently, the only effective means of avoiding skin injury or illness involves minimizing skin contact, particularly with wet cement. Exposed persons may not discomfort until hours after the exposure has ended and significant injury has occurred. Dry

portland cement contacting wet skin or exposure to moist or wet masonry cement may cause more severe skin effects including: thickening, cracking or fissuring of the skin. Prolonged exposure can cause severe damage in the form of (alkali) chemical burns. Some individuals may exhibit an allergic response upon exposure to portland cement, possibly due to trace elements of chromium. The response may appear in a variety of forms ranging from a mild rash to severe skin ulcers. Persons already sensitized may react to their first contact with the product. Other persons may first experience this effect after years of contact with portland cement products.

Effects Resulting from Inhalation: Portland cement may contain trace amounts of free crystalline silica. Prolonged exposure to respirable free silica can aggravate other lung conditions and cause *silicosis*, a disabling and potentially fatal lung disease. Exposure to portland cement may cause irritation to the moist mucous membranes of the nose, throat, and upper respiratory system. It may also leave unpleasant deposits in the nose.

Effects Resulting from Ingestion: Although small quantities of dust are not known to be harmful, ill effects are possible if larger quantities are consumed. Portland cement should not be eaten.

Carcinogenic potential: Portland cement is not listed as a carcinogen by NTP, OSHA, or IARC. It may however, contain trace amounts of substances listed as carcinogens by these organizations. *Crystalline silica*, a contaminate in portland cement, is now classified by IARC as a known human carcinogen (Group I). NTP has characterized respirable silica as "reasonably anticipated to be a] carcinogen". Medical conditions which may be aggravated by inhalation or dermal exposure: Pre-existing upper respiratory and lung diseases. Unusual (hyper) sensitivity to hexavalent (chromium+6) salts.

Section 7 – Precautions for Safe Handling and Use

Steps to be taken in case material is released or spilled: Collect dry material using a scoop. Avoid actions that cause dust to become airborne. Avoid inhalation of dust and contact with skin. Wear appropriate protective as described in section 9.

Waste disposal method: Scrape up wet material and place in appropriate container. Allow material to dry before disposal. Do not attempt to wash masonry cement down drains. Dispose of waste material according to local, state, and federal regulations.

Precautions to be taken in handling and storing: Keep product dry until used. Normal temperatures and pressure do not affect the material.

Other precautions: Promptly remove dusty clothing or clothing which is wet with cement fluids and launder before reuse. Wash thoroughly after exposure to dust or wet cement mixtures or fluids.

Section 8 – Control Measures

Skin Protection: Prevention is essential in avoiding potentially severe skin injury. Avoid contact with unhardened portland cement. If contact occurs, properly wash affected area with soap and water. Where prolonged exposure to unhardened portland cement products might occur, wear impervious clothing and gloves to eliminate skin contact. Wear sturdy boots that are impervious to eliminate foot and ankle exposure. Do not rely on barrier creams. Barrier creams should not be used in place of gloves. Periodically wash areas contacted by dry portland cement, or by wet cement or concrete fluids, with a pH-neutral soap. Wash again at the end of work. If irritation

occurs, immediately wash the affected area and seek treatment. If clothing becomes saturated with wet cement, it should be removed and replaced with clean, dry clothing.

Respiratory Protection: Avoid actions that cause dust to become airborne. Use local or general ventilation to control exposures below applicable exposure limits. Use NIOSH/MSHA-approved (under 30 CFR 11) or NIOSH-approved (under 42 CFR 84) respirators in poorly ventilated areas, if an applicable exposure limit has been exceeded, or when dust causes discomfort or irritation. (Advisory: Respirators and filters purchased after June 10, 1998 must be certified under 42 CFR 84).

Ventilation: Use local exhaust or general dilution ventilation to control exposure within applicable limits.

Eye Protection: Where potentially subject to splashes or puffs of cement, wear safety glasses with side shields or goggles. In extremely dusty environments and unpredictable environments, wear unvented or indirectly vented goggles to avoid eye irritation or injury. Contact lenses should not be worn when working with portland cement or fresh cement products.