SAFETY DATA SHEET

GHS Compliant | OSHA Hazard Communication Standard 29 CFR 1910.1200

Product Name **Vermiculite EZ Mix; EZ-Skim PRO** Vermiculite Chimney Mix; Vermiculite Fireproof Column Mix	**Manufacturer** **Whittemore Company, Inc.** 30 Glenn Street, Lawrence, MA 01843 Emergency: 978-681-8833 | Fax: 978-682-3413
Product Class Hydrated Laminar Magnesium Aluminum Iron Silicate mixed with Portland Cement	**Product Use** Construction and casting applications SDS Date: April 8, 2025, | Revision: 2025-A

SECTION 2 — HAZARDS IDENTIFICATION

2.1 GHS Classification

- Skin Corrosion/Irritation: Category 1B
- Eye Irritation: Category one
- Specific Target Organ Toxicity – Single Exposure (Inhalation): Category 4

2.2 Signal Word

⚠ DANGER

2.3 GHS Hazard Pictograms

The following GHS pictograms apply to this product:

		
GHS05 Corrosion	**GHS07** Exclamation Mark	**GHS08** Health Hazard

2.4 Hazard Statements

- H314 – May cause severe skin burns and eye damage.
- H318 – Causes serious eye damage.
- H335 – May cause respiratory irritation.
- H317 – May cause an allergic skin reaction.

2.5 Precautionary Statements

Prevention:

- Use proper engineering controls, work practices, and personal protective equipment to prevent exposure.
- Wash hands thoroughly after handling.
- Avoid processes that generate unnecessary dust.

Response:

- SKIN: Remove contaminated clothing. Rinse skin with water for at least 15 minutes. Seek medical attention if irritation persists.
- EYES: Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present. Seek immediate medical attention.

- INHALATION: Remove person to fresh air. Seek medical attention if coughing or symptoms persist.
- INGESTION: Do not induce vomiting. Seek medical attention or contact a Poison Control Center immediately.

Emergency Overview: This fine-particle product presents inhalation hazards that are readily controlled with appropriate dust protection equipment. Avoid processes that generate unnecessary airborne dust.

SECTION 3 — COMPOSITION / INFORMATION ON INGREDIENTS

Product Components: Exfoliated vermiculite powder, flakes, or granules (CAS# 1318-00-9) mixed with Portland Cement powder (CAS# 65997-15-1).

Ingredient	CAS #	% (wt)	ACGIH TLV (mg/m^3)	NIOSH REL (mg/m^3)	OSHA PEL (mg/m^3)
Portland Cement [1] [2]	65997-15-1	50–60	1 (Resp)	10 (Total) / 5 (Resp)	15 (Total) / 5 (Resp)
Exfoliated Vermiculite	1318-00-9	40–50	10 (Total) / 3 (Resp)	10 (Total) / 3 (Resp)	15 (Total) / 5 (Resp)
Calcium Sulfate Dihydrate	13397-24-5	<3.0	10 (Total) / 5 (Resp)	15 (Total)	15 (Total) / 5 (Resp)
Calcium Carbonate	1317-65-3	<3.0	10 (Total)	15 (Total)	15 (Total) / 5 (Resp)
Magnesium Oxide	1309-48-4	<3.0	10 (Total)	15 (Total)	15 (Total)
Calcium Oxide	1305-78-8	<3.0	2 (Total)	5 (Total)	5 (Total)

[1] Portland Cement is classified as particulate matter (<1% crystalline silica) per OSHA 29 CFR 1910.1000, Table Z-3 and MSHA 30 CFR 56.5001. Not listed as a carcinogen by NTP, IARC, or OSHA.

[2] Trace amounts of chloride, crystalline silica, potassium/sodium compounds, cadmium, chromium, nickel, lead, and organic compounds may be present depending on the cementitious products produced in the cement kiln.

LD50: Not available | LC50: Not available

SECTION 4 — FIRST AID MEASURES

Eyes: Irrigate with water for at least 15 minutes, including under the eyelids, to remove all particles. Contact a physician immediately.

Skin: Flush exposed skin with cool water and a pH-neutral soap or mild detergent for at least 15 minutes. Remove all contaminated clothing and footwear immediately. Consult a physician if irritation persists.

Inhalation: Remove the affected person to fresh air immediately. Seek medical attention if coughing or other symptoms persist.

Ingestion: Do not induce vomiting. Seek medical attention or contact a Poison Control Center immediately (1-800-222-1222).

SECTION 5 — FIRE FIGHTING MEASURES

Flammable: No

Extinguishing Media: Use media appropriate for surrounding materials.

Special Hazards: High airborne dust concentrations may be susceptible to explosion. Avoid generating dust clouds near ignition sources.
Hazardous Combustion Products: None

Rating System	Health	Flammability	Reactivity
NFPA	1	0	0
HMIS	1	0	0

HMIS Personal Protection: E

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Clean up the spill using standard procedures, taking care not to create airborne dust. Vacuum systems are recommended. Do not add water to dry spilled material. If uncontaminated, the collected material may be reused. Dispose of all collected material in accordance with applicable local, state, and federal regulations.

SECTION 7 — HANDLING AND STORAGE

Handling

- Avoid creating unnecessary dust during transfer, mixing, or application.
- Use engineering controls and PPE where dust generation is unavoidable.
- Wash hands and exposed skin thoroughly after handling.

Storage

- Keep dry at all times. Portland Cement reacts with water — even humidity can initiate hydration.
- Store away from acids, ammonium salts, aluminum metal, and powerful oxidizers.
- Store in a cool, dry, well-ventilated area, away from products that could be adversely affected by dust.

SECTION 8 — EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

Component	OSHA PEL	ACGIH TLV
Portland Cement	15 mg/m³ (Total) / 5 mg/m³ (Resp) / 50 mppcf	1 mg/m³ (Resp)
Other Components / General Dust	15 mg/m³ (Total) / 5 mg/m³ (Resp)	10 mg/m³ (Total) / 3 mg/m³ (Resp)

Engineering Controls

- Maintain good housekeeping practices in all work areas.
- Provide local exhaust ventilation at workstations where this product is handled.
- Use enclosed or semi-enclosed mixing equipment where feasible.

Required Personal Protective Equipment (PPE)

- Respiratory Protection: NIOSH/OSHA-approved dust respirator rated for contaminant concentrations encountered (minimum N95 for routine use).

- Eye Protection: Safety glasses or goggles required. Do not wear contact lenses when handling this material.
- Skin Protection: Chemical-resistant (plastic or rubber) gloves required. Coveralls recommended for frequent handling.
- Foot Protection: Disposable or chemical-resistant footwear recommended for frequent handling.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid — powder, flakes, or granules
Appearance & Odor	Grey to tan powder with flakes or granules; no odor
pH (10% slurry)	11–13 (highly alkaline)
Specific Gravity	2.6–3.0
Solubility in Water	Slightly soluble (0.1–1.0%)
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Boiling Point	Not applicable
Flash Point	Not applicable — non-flammable
Autoignition Temperature	Not applicable
Flammability Limits	Not applicable
Evaporation Rate	Not applicable

SECTION 10 — STABILITY AND REACTIVITY

Chemical Stability: Stable when kept dry. Portland Cement reacts exothermically with water; keep dry until use.
Conditions to Avoid: Contact with water or moisture prior to intended use; high-humidity storage environments.
Incompatible Materials: Acids, ammonium salts, aluminum metal. Wet Portland Cement (pH 12–13) is highly alkaline. Portland Cement dissolves in hydrofluoric acid, producing corrosive silicon tetrafluoride gas. Silicates react with powerful oxidizers including fluorine, boron trifluoride, chlorine trifluoride, and oxygen difluoride.
Hazardous Decomposition Products: None under normal conditions.
Hazardous Polymerization: Will not occur.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute Health Effects

- SKIN: Wet cement can cause alkali burns, drying, and irritation. Prolonged skin contact without washing may cause severe chemical burns.
- EYES: Dust and wet cement will irritate eyes and may cause alkali burns. Serious eye damage is possible without prompt treatment.
- INHALATION: Dust irritates the upper respiratory tract and throat.
- INGESTION: Ingestion of cement may cause chemical burns to the mouth, throat, and gastrointestinal tract.

Chronic Health Effects

- Repeated skin contact may cause allergic dermatitis in sensitized individuals.
- Pre-existing dermatitis or upper respiratory/lung conditions may be aggravated by exposure.

Carcinogenicity: Portland Cement is not listed as a carcinogen by NTP, IARC, or OSHA. Crystalline silica content is <1%.

Signs and Symptoms of Exposure: Reddened or watering eyes; drying, cracking, or burning of skin; irritation of the upper respiratory tract and throat; alkali burns to skin or mucous membranes.

SECTION 12 — ECOLOGICAL INFORMATION

Aquatic Toxicity: Low hazard under normal industrial handling conditions. Fully hydrated product leaves an inert substance. The highly alkaline intermediate state may be hazardous to aquatic plants and animals. Do not flush to sewer or surface waterways.

Persistence / Degradability: Portland Cement hydration products are inert minerals and do not biodegrade.

Mobility: Keep spills dry and contained. Do not allow runoff into drains, storm sewers, or waterways.

SECTION 13 — DISPOSAL CONSIDERATIONS

Dispose of this product and contaminated materials in full compliance with all applicable local, state, and federal regulations. Dry, uncontaminated material may be reused. Hardened or contaminated waste should be managed as solid industrial waste. Contact your local waste management authority for guidance on large-quantity disposal.

SECTION 14 — TRANSPORT INFORMATION

DOT (US Road/Rail): Not regulated — no specific requirements.

IMO (Maritime): Non-hazardous.

ICAO/IATA (Air): Non-hazardous.

SECTION 15 — REGULATORY INFORMATION

United States

- OSHA Hazard Communication Standard: This product meets the definition of a hazardous chemical under 29 CFR 1910.1200 and must be included in the employer's Hazard Communication Program.
- TSCA: Selected components of Portland Cement are listed on the TSCA Chemical Substance Inventory. Vermiculite is listed as a naturally occurring mineral.
- WHMIS (Canada): Portland Cement is classified as a hazardous material (Class E — Corrosive Material) under the Controlled Products Regulations and is subject to WHMIS labeling and SDS requirements.

Long-Term Potential Health Effects (Regulatory)

- Skin irritation and potential allergic dermatitis from repeated contact.
- Eye irritation and potential for serious damage without prompt treatment.
- Possible respiratory irritation: individuals with pre-existing lung conditions should avoid exposure.

Note: This SDS has been prepared in accordance with the GHS hazard criteria, OSHA 29 CFR 1910.1200, and Canadian Controlled Products Regulations (CPR).

SECTION 16 — OTHER INFORMATION

SDS Preparation Date: April 8, 2025

Revision: 2025-A (Updated from May 17, 2018, version — formatting, GHS alignment, PPE, and regulatory language updated)

Prepared By: Whittemore Company, Inc. | 978-681-8833

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