



Tectonite™ VRS Cement

Material Safety Data Sheet (MSDS)

Technical Center

Warm Springs Composite Products
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Product

Tectonite™ VRS Cement
 MSDS No. JV/207
 Revision Date: 3/11/11

Section I - Material Identification

Trade/Material Name:	Tectonite™ VRS Cement
Description:	Magnesium Oxyphosphate Cement
Other Designations:	Magnesium Oxide (Mag-Ox)
CAS:	None assigned
Chemical Name:	Magnesium Oxyphosphate Cement
Manufacturer:	Warm Springs Composite Products

Section II - Ingredients and Hazards

Ingredient Name	CAS Number	Percent	Exposure Limits (Respirable Dust OSHA PEL)
Dead burned magnesite	1309-48-4	25-40%	10 mg/m ³
Nitrogen	10101-89-0	5-12%	5 mg/m ³
Phosphate (AS P205)	7722-78-1	10-15%	1 mg/m ³
Phosphate (AS H ₃ PO ₄)	7722-78-1	10-15%	1 mg/m ³
Crystalline Quartz	14808-60-1	50-75%	.01 mg/m ³
Fly Ash	68131-74-8	10-50%	5 mg/m ³

This material contains less than 1% free silica. The respirable dust Permissible Exposure Limit (“PEL”) for this material would be: 3.3 mg/m³ for total dust and 5 mg/m³ for respirable dust.

Section III – Physical Data

Appearance & Odor	Granular Gray powder – no odor
Boiling Point & Evaporation Rate	N/A
Vapor Pressure	N/A
Specific Gravity, H ₂ O= 1	3.20 – 3.40
Water Solubility (%)	Nil
Vapor Density, air = 1	N/A
Melting Point	> 2,200° F
% Volatile by Volume	0

At document date, the information in this document is based on data considered accurate and is supplied in good faith to comply with federal and state law. However, no warranty or representation with respect to the information is intended or given.



Section IV – Fire & Explosion Data

Flash Point Method	This is a non-flammable product
Limits, LEL % & UEL %	N/A
NFPA Fire Hazard Symbol Codes:	
Flammability or Health	0 for both
Reactivity or Special	0 for both
Extinguishing Media	None

Fire & Explosion Data (cont.)

Unusual Fire or Explosion Hazards	None
Special Fire-fighting Procedures	None

Section V – Reactivity Data

Material is Stable	Hazardous polymerization cannot occur
Chemical Incompatibilities	Strong acids
Hazardous Decomposition Products	Ammonia and oxides of nitrogen

Section VI – Health Hazard Information

Summary of risks: Magnesium oxyphosphate cement presents a very low health risk in most applications. Some literature cites magnesium oxide as an experimental tumorigen. Inhalation of the fume (produced in a high temperature arc) can produce a febrile reaction and leukocytosis in humans. The dust is classified as a nuisance dust, and the product contains very few particles in the respirable size range.

Medical Conditions Which may be Aggravated by Contact: Pre-existing chronic lung conditions such as, but not limited to, bronchitis, emphysema, and asthma; **Target organs** – Respiratory tract; **Sign & symptoms of overexposure** – Not observed; **Eye contact** – Transient mechanical irritant; **Skin contact** – Possible irritation from overexposure to dust; **Inhalation** – Excessive exposure to product dust may cause upper respiratory irritation; **FIRST AID:** **Ingestion** – Have victim drink milk or water, induce vomiting, and consult physician; **Eye Contact** – Flush with copious quantities of water; **Skin Contact** – Wash with mild soap and water; **Inhalation** – Remove to fresh air.

Section VII – Spill, Leak, & Disposal Procedures

Spill/leak procedures: Vacuum dust created during use. If sweeping is necessary, use a dust suppressant. Avoid breathing product dust.

Waste management/disposal: Wastes generated from this product during mixing, use, or spillage are not hazardous wastes as defined by RCRA (40 CFR Part 261). Comply with federal, state, and local regulations. Method of disposal is by an approved landfill.

Section VIII – Special Protection Information

Personal Protective Equipment: Goggles or face shield should be used during cutting, milling, or abrading of products made with this material. Gloves are optional.

Respirator: Use a mask such as 3M™ 9900 or equivalent for protection against pneumoconiosis producing dust. Insure proper fit.

Other: Maintain good housekeeping practices to insure minimum dust levels.

Workplace considerations:

Ventilation: use sufficient natural and mechanical ventilation to maintain dust concentrations below the PEL, (TLV);

Safety Stations: optional;

Contaminated Equipment: use respiratory protection if it is necessary to clean up material.

Section IX – Special Precautions

Storage segregation: Always segregate materials by major hazard class.

Special handling/storage: Keep material dry.