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Material Safety Data Sheet

Section 1 - Company and Product Indentificaion

Manufacturer: American Cement Company, LLC
4750 E C 470
PO Box 445
Sumterville, FL 33585

Material Identity: Portland Cement Type I, II, III or Masonry Type M, S, N

Section 2 - Hazardous Ingredients/Indetity Information

Hazardous Components (Chemical Identity/Common Names)	CAS	OSHA PEL	ACGIH TLV	NIOSH REL 8 Hour TWA	%
Portland Cement	65997-15-1	15 mg/m³ (Total) 5 mg/m³ (Respirable)	10 mg/m³		50 - 95 %
Calcium Carbonate	1317-65-3	15 mg/m³ (Total) 5 mg/m³ (Respirable)	10 mg/m³		0 - 50 %
Calcium Sulfate	7778-18-9	15 mg/m³ (Total) 5 mg/m³ (Respirable)	10 mg/m³		0 - 7 %
Crystalline Silica	14808-60-7	30/(%SiO_2+2) mg/m³ (Total) 10/(%SiO_2+2) mg/m³ (Respirable)	0.05 mg/m³ (Respirable quartz)	0.05 mg/m³ (Respirable quartz)	0 - 3 %

Section 3 - Physical Data

Boiling Point	> 1000 C	**Specific Gravity (H_2O = 1)**	3.15
Vapor Pressure (mm Hg)	Not Applicable	**Melting Point**	Not Applicable
Vapor Density (Air = 1)	Not Applicable	**Evaporation Rate (Butyl Acetate = 1)**	Not Applicable
Solubility In Water:	Slightly soluble (0.1 to 1.0v %) in water		
Appearance and Odor:	Grayish powder that has no odor		

Section 4 - Fire and Explosion Hazard Data

Flash Point: None **Flammable Limits:** Not Flammable **LEL:** N/A **UEL:** N/A

Special Fire Fighting Procedures: Avoid exposing skin to wet cement. Be aware of runoff from fire control methods. Do not release material to sewers or waterways, as product reacts with water and hardens within 2 to 6 hours. Hardened material may clog sewers and waterways.

Unusal Fire and Explosion Hazards: None Reported

Section 5 - Reactivity Data

Stability: Keep dry until use **Stable:** X

Conditions to Avoid: This material is stable at room temperature under normal storage and handling conditions. Product reacts with water and hardens in 2 to 6 hours.

Incompatibility (Materials to Avoid): Stable under expected conditions of use

Hazardous Decomposition or Byproducts: None Reported

Hazardous Polymerization: Not known to occur

Section 6 - Health Data

Health Hazards:

Acute Effects: Exposure to airborne cement dust may cause eye, nose, upper respiratory tract irritation, cough, expectoration, shortness of breath, and wheezing. Eye contact with wet or dry cement may cause burning and possible corneal edema. Direct contact with wet cement may cause extensive skin burns with dermal necrosis. Within 12 to 48 hours (after one to six hour exposure) possible first, secord, or third degree burns may occur. There may be no obvious pain at the time of the exposure. Ingestion of dry or unhardened wet cement causes esophagus and stomach burns.

Use of cement for construction purposes is not believed to cause additional acute toxic effects. However, repeated overexposures to very high levels of respirable crystalline silica (quartz, cristobalite, tridymite) for periods as short as six months have caused acute silicosis. Acute silicosis is a rapidly progressive, incurable lung disease that is typrically fatal. Symptons include (but are not limited to): shortness of breath, cough, fever, weight loss, and chest pain.

Chronic Effects: Chronic bronchitis may result from chronic exposure to dust. There are reports of x-ray changes without symptons in cement workers exposed to Portland Cement. Chronic dermatitis may result from chronic skin exposure to wet cement. The contact dematitis may clear up only after a prolonged time after the exposures end.

Carcinogenicity: Portland Cement is not listed on the NTP, IARC, or OSHA list of carcinogens. However, in October 1996, IARC classified respirtable crystalline silica from occupational sources as carcinogenic (Group 1). The NTP indicates that crystalline silica (respirable size) is a know human carcinogen (Group 1). These classifications are based on sufficient evidence of carcinogenicity in certain experimental animals and on selected epidemiological studies of workers exposed to crystalline silica.

Section 6 - Health Data (continued)

Signs and Symptons of Exposure:

Cement dust is a skin, eye, and mucous membrane irritant. Its principal health hazard (with the addition of water) occurs when it forms alkaline, abrasive, hygroscopic (moisture absorbing) calcium hydroxide (slaked lime) in powdered or slurried form. Dry cement alone does not cause an alkaline burn. Some individuals appear to tolerate brief skin contact with wet cement, but others develop extensive skin burns. Repeated and prolonged skin contact can cause dermatitis, including: skin dryness, fissures, rashes, and nail dystophy.

Chronic exposure to respirable dust containing crystalline silica in excess of applicable OSHA PELs, MSHA PELs, and ACGIH TLVs has caused silicosis, a progressive lung disease. Chronic tobacco smoking may further increase the risk of developing chronic lung problems. Not all individuals with silicosis will exhibit symptoms (signs) of the disease. However, silicosis is progressive, and symptoms can appear at any time, even years after exposures have ceased. Symptoms of silicosis may include (but are not limited to): shortness of breath, difficulty breathing with or without exertion, coughing, dimished work capacity, dimished chest expansion, reduction of lung volume, right heart enlargement ando/or failure. Persons with silicosis have an increased risk of pulmonary tuberculosis infection.

Medical Conditions Generally Aggravated by Exposure:

Individuals with chronic respiratory disorders or skin diseases should minimize inhalatin and skin contact with cement. Inhaling respirable cement dust may aggravate existing respiratory diseases or dysfunction. Exposure to dust may aggravate existing skin and/or eye irritations.

Physicians Note:

Ingestion of large amounts of material is unlikely. However, to prevent re-exposing the esophagus and stomach, do not induce emesis or perform gastric lavage. Immediate dilution may prevent esophageal burns. For severe burns, consider esophagoscopy withing the first 24 hours. Neutralization with acidic agents is not advised because of increased risks of exothermix burns. Water-mineral oil soaks may aid in removing hardened cement from the skin. Dried-on cementis extremely difficult to remove; surgical debridement or even skin grafting may be necessary. Consult an opthalmologist for ocular burns.

Emergency and First Aid Procedures:

Dust or Wet Cement in Eyes: Gently lift the eyelids and flush immediately and continuously with flooding amounts of water until transported to an emergency medical facility. Consult a physician immediately if irritation persists.

Wet Cement on Skin: Quickly remove contaminated clothing. Rinse with flooding amounts of water for at least 15 minutes. Rinsing the exposed area with dextrose water may slow the hardening process. For reddened or blistered skin, consult a physician. Wash affected areas with soap and water. Treat acute dermal reaction to wet cement as you would for lye burns. Consult a physician immediately if irritation persists.

Inhalation of Dust: Remove exposed person to fresh air and support breathing as needed. Consult a physician immediately if irritation persists.

Ingestion: Never give anything by mouth to an unconscious or convulsing person. If the material is ingested, have the conscious person drink 4 to 8 oz. of water or milk. Consult a physician immediately.

Section 7 - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled: Cleanup personnel should protect against dust inhalation and direct contact with wet cement using the procedures in Section VIII. Avoid creating airborne dust conditions. Spilled materials, where dust can be generated, may expose cleanup personnel to respirable dust containing crystalline silica. Use methods such as vacuuming (with an appropriate filter) or mopping to minimize dust dispersion. Carefully scoop dry material into a suitable container for disposal or reclamation. Wet or unhardened cement should be recycled or allowed to harden and disposed.

Waste Disposal Method: Allow wet, unhardened cement to harden and dispose in a landfill as common waste. Follow applicable Federal, State, and local regulations for disposal of dry cement. The material is not listed as hazardous waste under designations by the EPA or DOT.

Precautions to Be Taken in Handling and Storing: Follow protective controls defined in Section VIII when handling wet or dry cement. Dry cement should be stored such that moisture does not come in contact with the material until it is ready to be use.

Section 8 - Control Measures

Respiratory Protection: When exposed or likely to be exposed to dust above recommended limits, wear a suitable NIOSH-approved respirator with a protection factor appropriate for the level of exposure. Seek guidance from a qualified industrial hygienist, safety professional, or other suitably knowledgeable individual prior to respirator selection and use. For emergency or non routine operations (e.g., confined spaces), additional precautions or equipment may be required. Respirator use must comply with applicable MSHA or OSHA standards, which include provisions for a user training progream, respirator repair and cleaning, respirator fit testing, and other requirements.

Ventilation	**Local Exhaust:** Provide general or local ventilation systems, as needed, to maintain aibornedust concentrations below the OSHA PELs, MSHA PELs, and ACGIH TLVs. Local exhaust ventilation is preferred since it prevents release of contaminants into the work area by controlling it at the source.	**Other:** Respirable dust and quartz levels should be monitored regularly. Dust and quartz levels in OSHA PELs, MSHA PELs, and ACGIH TLVs should be reduced by all feasible wet suppression, ventilation, process enclosure, and enclosed employee work stations.
	Mechanical (General): See above recommendations	**Special:** None Reported

Skin Protection: Wash skin exposed to dust and wet cement thoroughly after handling. If hands or feet will be immersed in cement, wear impervious gloves and/or boots. Wash work clothes after each use.

Eye Protection: Wear safety glasses with side shields as minimum protection from blowing dust. Tightly fitting goggles should be worn when excessively (visible) dusty conditions are present or anticipated, or when there is a splash hazard from wet cement.

Other Protective Clothing or Equipment: Wear suitable protective clothing, as needed, to minimize skin contact.

Work/Hygienic Practices: Avoid dust inhalation and direct contact with skin and eyes. Wear suitable protective clothing and gear when handling cement. If respiratory protection is used, institute a respiratory protection program that includes regular training, inspection, maintenance, and evaluation. To prevent ingestion and skin contact, practice good personal hygiene. Wash contaminated skin before eating, drinking, lavatory use, and before applying cosmetics.

Disclaimer:

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