



Thomas, Bennett & Hunter, Inc.

Established 1909

MATERIAL SAFETY DATA SHEET

Ready-Mixed Concrete/Grout/Flowable Fill

SECTION I -- PRODUCT/COMPANY IDENTIFICATION

Manufacturer's Name: THOMAS, BENNETT & HUNTER, INC.
Main Office Address: 70 JOHN STREET, WESTMINSTER, MD 21157
Telephone Numbers: (410) 848-9030
Plant telephone numbers: FREDERICK, MD CONCRETE PLANT (301) 898-0700
 HAGERSTOWN, MD CONCRETE PLANT (301) 739-5944
 WESTMINSTER, MD CONCRETE PLANT (410) 848-9030
 MARTINSBURG, WV CONCRETE PLANT (304) 262-4664
Product Class: Ready-Mixed Concrete; Grout; Flowable Fill

SECTION II -- EMERGENCY and FIRST AID PROCEDURES

DANGER: MAY CAUSE BURNS TO EYES AND SKIN

SKIN CONTACT: Skin that comes in contact with fresh concrete should be washed thoroughly with large amounts of soap and clean water. Clothing that becomes saturated from contact with fresh concrete should be rinsed out promptly with clean water to prevent continued contact with skin surfaces. Mild irritation of skin areas can be relieved by applying a lanolin cream to the irritated area after washing. Persistent or severe discomfort should be attended to by a physician.

EYE CONTACT: Contact a physician immediately. Flush eyes with large amounts of clean water for at least 15 minutes.

INGESTION: Due to the nature of this material, it is unlikely that it will be ingested. If this does occur, remove individual from the area. Two or three glasses of milk or water should be provided to dilute the stomach contents, if the individual is conscious. Do not induce vomiting. Contact a physician or Poison Control Center.

SECTION III - HAZARDOUS INGREDIENTS

Concrete is a mixture of inert crushed limestone or gravel, silica sand or crushed limestone sand, Portland cement, ground granulated blast furnace slag, fly ash, water and one or more of the following admixtures (less than 1%): air entraining, water reducing, set accelerating, set retarding or polypropylene fibers. The hazardous ingredients in plastic (wet) concrete cannot become airborne. However, when the water is added to the dry ingredients, it reacts with the calcium oxide in the Portland cement to form calcium hydroxide -- a corrosive chemical which will irritate the eyes and skin upon contact. Concrete dust from dried Portland cement concrete may also contain hazardous ingredients in sufficient concentrations to cause skin, eye, or respiratory disease.

Chemical – Common Name	OSHA PEL	NIOSH REL	%	CAS No.
Portland Cement	5.0 mg/M ³ respirable dust; 15.0 mg/M ³ total dust	5.0 mg/M ³ respirable dust; 10.0 mg/M ³ total dust	20-30	65997-15-1
Calcium oxide	5 mg/M ³ total dust	2 mg/M ³ total dust	2-4	1305-62-0
Sand, quartz, crystalline silica	Approximately 0.1 mg/M ³ respirable dust	0.05 mg/M ³ respirable dust	10-20	14808-60-7
Gravel	none	None	40-50	1317-67-3

This product is delivered as a ready-mixed cement mud, so there is no dust hazard present from the plastic (wet) product and the OSHA PEL's and NIOSH REL's generally would not be applicable at time of delivery.



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SECTION IV - PHYSICAL CHARACTERISTICS

Boiling range:	Does not apply	Vapor:	Does not apply
Evaporation Rate:	Does not apply	Percent Volatile by Volume:	0%
Appearance & Odor:	Gray, plastic, flowable, granular; very faint odor.		
Specific gravity: (water = 1)	Normal range 1.5 - 2.9	Stability:	stable
Hazardous polymerization:	none	Incompatible materials:	none
Special precautions:	will harden in 2 - 8 hours	Neutralizing chemicals:	N/A

SECTION V - FIRE AND EXPLOSION HAZARD DATA

DOT Category:	Non-Flammable	Flash Point:	None	LEL:	N/A
Extinguishing Media:	Does not apply				
Unusual Fire and Explosion Hazards:	None	Special Fire Fighting Procedures:	None		

SECTION VI - HEALTH HAZARD INFORMATION

Skin/Eye Contact: Freshly mixed unhardened concrete CAN CAUSE SKIN IRRITATION, SEVERE CHEMICAL BURNS, or SERIOUS EYE DAMAGE. It contains sand and coarse aggregate which are abrasive to bare skin. Plastic (wet) concrete contains Portland cement, has an alkalinity of pH12 - pH13 and may cause irritation and alkali burns. Prolonged or repeated contact may cause allergic dermatitis in sensitive individuals. Skin contact may cause local irritation of the affected area. Pre-existing skin conditions may be aggravated by exposure.

Ingestion: Unlikely. May cause irritation.

Inhalation: Plastic (wet) ready-mixed concrete does not pose an inhalation hazard.

Carcinogenic Potential: Concrete frequently contains crystalline silica in concentrations greater than 0.1%, principally contributed by the aggregates. Respirable crystalline silica is classified by IARC (International Agency for Research on Cancer) as a known human carcinogen and by NTP (National Toxicology Program) as "reasonably anticipated to be a carcinogen." Crystalline silica in plastic (wet) ready-mixed concrete is not respirable and does not pose a hazard when the concrete is in its unhardened state. Once concrete has hardened, airborne dust generated by grinding, sawing, drilling, breaking, etc. can lead to potentially hazardous exposures to workers and appropriate respiratory protection precautions should be taken. Silicosis is a progressive lung disease caused by breathing respirable particles of silica dust over a period of time. Individuals vary in their susceptibility. Chronic silicosis may develop after 10 or more years of exposure to crystalline silica at relatively low levels. Accelerated silicosis may result from exposure to high concentrations over 5-10 years. Acute silicosis occurs where exposure concentrations are the highest and can cause symptoms to develop within a few weeks to 5 years. Dry cough may be an early manifestation of silicosis. As the disease progresses, the cough may become more prolonged and be associated with sputum production. The most frequently observed symptoms are unproductive cough, dyspnea (labored or difficult breathing), chest pains, and changes in breath sounds.



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SECTION VII - PERSONAL PROTECTION & HAZARD CONTROL INFORMATION

Good Work Practices: Wear waterproof gloves, a long-sleeved shirt, full-length trousers and proper eye protection when working with concrete.

Other Precautions: If you stand in wet (unhardened) concrete, use waterproof boots that are high enough to keep concrete from flowing into them. Wash wet concrete, mortar, cement, or cement mixtures from your skin immediately after contact. Indirect contact through clothing can be as serious as direct contact, so promptly rinse out wet concrete, mortar, cement, or cement mixtures from clothing. Seek immediate medical attention if you have persistent or severe discomfort.

Respiratory Protection: None required with plastic (wet) concrete.

Ventilation: None required with plastic (wet) concrete.

Eye protection: Safety glasses or face shield recommended.

Skin Protection: Waterproof rubber gloves, waterproof rubber boots, long pants, long sleeve shirts recommended.

SECTION VIII -- PRECAUTIONS FOR SAFE HANDLING, USE & DISPOSAL

PLASTIC (WET) CONCRETE SHOULD BE KEPT OUT OF REACH OF CHILDREN.

Disposal: Small spills: Material will harden in 2 - 8 hours and can generally be removed and disposed of as common waste in accordance with applicable local requirements. If removing while still wet, water may be used to dilute. Use personal protective equipment described above. Large spills: Notify safety personnel. Clean-up personnel need to use eye and body protection as described above.

Hard (dried) Portland Cement Concrete: Respirable dust may be generated when hardened concrete is subjected to mechanical forces, such as in demolition work and surface treatment (sanding, grooving, chiseling, cutting, grinding, etc.) To the extent practical, use wet methods to minimize airborne dust levels when sawing or using other concrete renovation methods. Wear an appropriate and approved respirator when the work generates any airborne dust. Providing exhaust ventilation to remove the dust to an unoccupied area when sawing or using other renovation methods may also contribute to reduced dust levels. Persons not wearing appropriate respiratory protective equipment should be excluded from dusty areas until the demolition work has been completed and the dust has cleared. When clearing renovation or demolition refuse, avoid re-entraining dust. Use wet methods or a vacuum with a high efficiency filter to remove the dust.

SECTION IX -- HAZARD CLASSIFICATION

The International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), and the National Institute for Occupational Safety and Health (NIOSH) classify crystalline silica as a probable human carcinogen.

This MSDS provides information on various types of ready-mixed concrete mixtures. A particular mixture's composition may vary from sample to sample. The information provided herein is believed by Thomas, Bennett & Hunter, Inc. to be accurate at the time of preparation or prepared from sources believed to be reliable. Health and safety precautions in this data sheet may not be adequate for all individuals or situations. Users have the responsibility to comply with all laws and procedures applicable to the safe handling and use of the product, to determine the suitability of the product for its intended use, and to understand possible hazards associated with using ready mixed concrete. THOMAS, BENNETT & HUNTER, INC. MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED.