

# Material Safety Data Sheet

for



**Identity:** Freshly Mixed Unhardened Concrete

## Section I

Manufacture's Name & Address D.W. Dickey & Son, Inc. 169 Duquesne St. Columbiana, Ohio 44408	Telephone for Information 330-482-3833 Date Prepared 3/16/2010	Emergency number 330-482-3833
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## Section II- Hazardous Ingredients/ Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Rec.
Formula - mixtures of portland or blended cements, concrete aggregates and chemical admixtures.			
Portland and Blended cements			
Tricalcium Silicate (3CaO-SiO <sub>2</sub> )	(CAS # 12168-85-3)		
Dicalcium Silicate (2CaO-SiO <sub>2</sub> )	(CAS # 10034-77-2)		
Tricalcium Aluminate (3CaO-Al <sub>2</sub> O <sub>3</sub> )	(CAS # 23042-78-3)		
Tetracalcium Aluminoferrite (4CaO-Al <sub>2</sub> O <sub>3</sub> -Fe <sub>2</sub> O <sub>3</sub> )	(CAS # 12068-35-8)		
Calcium Sulfate Dihydrate (CaSO <sub>4</sub> -2H <sub>2</sub> O (Gypsum))	(CAS # 7778-18-9)	PEL-TWA	15 Mg/M <sup>3</sup> Total Dust
Plus traces of Calcium Oxide (CaO), Magnesium Oxide (MgO), Potassium Sulfate (K <sub>2</sub> SO <sub>4</sub> ), and Sodium Sulfate (Na <sub>2</sub> SO <sub>4</sub> )			
5 Mg/M <sup>3</sup> Respirable Fraction			
<b>Other Ingredients:</b>			
Concrete Aggregates, Inert gravel, sand and rocks			
Admixtures may include flyash, granulated slag and very small amounts of organic and inorganic materials which have no effect on the hazards associated with the use of the product.			

## Section III - Physical/ Chemical Characteristics

Boiling Point	N/A	Specific Gravity (H <sub>2</sub> O=1)	2.28-2.42
Vapor Pressure (mm Hg.)	N/A	Melting Point	N/A
Vapor Density (AIR + 1)	N/A	Evaporation Rate (Butyl Acetate - 1)	N/A
Solubility in Water	Slight (0.01 to 1%)	Ph for Plastic Concrete	12.5
Appearance and Odor	Gray, plastic, flowable, granular composite - Faint odor		

## Section VI - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL NI	UEL
N/A	N/A	N/A	N/A
Extinguishing Media			
N/A			
Special Fire Fighting Procedures			
N/A			
Unusual Fire and Explosion Hazards			
None			

1. Used form that was reproduced June 1999 By Ohio Ready Mixed Concrete Assoc.  
Based on OSHA 174, Sept. 1985

### Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid	However, product stiffens and hardens in 2 to 8 hours
	Stable	X		and is no longer hazardous
Incompatibility (Materials to Avoid)				
<i>None</i>				
Hazardous Decomposition of Byproducts				
Product hardens in a few hours and then does not decompose				
Hazardous Polymerization	May Occur		Conditions to Avoid	None
	Will Not Occur	X		

### Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	NO	YES	NO
Health Hazards (Acute and Chronic)			
<i>Acute - Wet plastic, unhardened concrete can dry the skin and cause alkali burns</i>			
<i>Chronic - Hypersensitive individuals may develop an allergic dermatitis - Portland cement may contain trace amounts of chromium</i>			
Carcinogenicity:	NTP? NO	IARC Monographs? NO	OSHA Regulated? NO
<i>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 wet concrete is not respirable and does not pose a hazard when the concrete is in its plastic or unhardened state. Once concrete has hardened, long term exposure to airborne dust generated by grinding, sawing, drilling or breaking of hardened concrete, could potentially lead to hazardous exposures to workers and subsequent health related problems. Appropriate respiratory protection should be worn during these operations.</i>			
Signs and Symptoms of Exposure			
<i>Irritation of skin and burning sensation particularly when exposure is in an area of skin previously subjected to abrasion or irritation</i>			
Medical Conditions Generally Aggravated by Exposure			
<i>Open wounds or sores</i>			
Emergency and First Aid Procedures			
<i>Irrigate eyes with water. Wash exposed areas of the body with soap and water - change clothing if contaminated with wet concrete</i>			

### Section VII - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material Is Released or Spilled
<i>Spill does not increase hazard</i>
Waste Disposal Method
<i>Material can be retained until it hardens when it can be disposed of as a common waste</i>
Precautions to Be Taken in Handling and Storing
<i>Use barrier creams, gloves, boots and clothing to protect the skin from prolonged contact with plastic concrete. Particularly avoid abrasion of the skin in contact with unhardened plastic concrete.</i>
Other Precautions
<i>Precautions must be observed because cement burns occur with little warning - little heat is sensed. Eye protection is not generally required, except when placing methods cause splash, then tight fitting goggles should be used.</i>

### Section VIII - Control Measures

Respiratory Protection (Specify Type)	<i>Not required</i>		
Ventilation	N/A	Local Exhaust	None
		Mechanical (General)	None
		Special	None
		Other	N/A
Protective Gloves	<i>Yes - waterproof</i>		Eye Protection
			<i>Yes - tight fitting goggles</i>
Other Protective Clothing or Equipment	<i>Waterproof boots, long-sleeved shirt and full length trousers should be worn</i>		
Work/Hygienic Practices	<i>Avoid contact between skin/eyes and wet/moist concrete</i>		