# **SAFETY DATA SHEET**

### **Section 1: Identification**

# **Freshly Mixed Unhardened Concrete**



**Supplier: TOP CAT CONCRETE** 

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This material is used in construction and manufacturing and may be used in making structural and decorative items and effects. Upon drying concrete becomes a solid.

# Section 2: Hazard(s) Identification

Hazard Classification: Irritant
Signal Word: Warning



Hazard Statement(s): Acute - Wet plastic, unhardened concrete can dry the skin and cause alkali burns

**Chronic** – Hypertensive individuals may develop and allergic dermatitis –Portland cement may contain trace amounts of chromium

**Carcinogenicity:** Wet plastic concrete is not carcinogenic.

Carcinogenic Potential: Category 1A - 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 carcinogenic." 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.

Use barrier creams, gloves, boots and clothing to protect the skin from prolonged contact with plastic (wet) concrete. Particularly avoid abrasion of the skin in contact with unhardened plastic concrete. 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.

# Section 3: Composition/Information on Ingredients

### Substances:

Formula - Mixtures of Portland or blended cements, concrete aggregates and chemical admixtures

### Mixtures:

Freshly Mixed Unhardened Concrete		
Portland and Blended Cements:		
Tricalcium Silicate (3CaO∙SiO₂)	(CAS #12168-85-3)	
Dicalcium Silicate (2CaO∙SiO₂)	(CAS #10034-77-2)	
Tricalcium Aluminate (3CaO●Al <sub>2</sub> O <sub>3</sub> )	(CAS #23042-78-3)	
Tetracalcium Alumininoferrite (4CaO●Al <sub>2</sub> O <sub>3</sub> ●Fe <sub>2</sub> O <sub>3</sub> )	(CAS #12068-35-8)	
Calcium Sulfate Dihydrate (CaSO₄●2H₂O) (Gypsum)	(CAS #7778-18-9) PEL-TWA	15 Mg/M³ Total Dust
Plus traces of Calcium Oxide (CaO), Magnesium Oxide (MgO), Potassium Sulfate (K₂SO₄)		
and Sodium Sulfate (Na₂SO₄)	5 Mg/M³ Respirable Fraction	
Other Ingredients:		

Concrete Aggregates, Inert gravel, sand and rock

Admixtures may include fly ash, 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 4: First-Aid Measures**

Prolonged contact between fresh wet concrete and skin surfaces, eyes, and clothing may result in burns that are quite severe, including third-degree burns. If irritation persists consult a physician. For deep burns or large affected skin areas, seek medical attention immediately.

The A-B-Cs of fresh concrete's effect on skin are:

Abrasive Sand contained in fresh concrete is abrasive to bare skin.

Basic & Portland Cement is alkaline in nature, so wet

Caustic concrete and other cement mixtures are strongly basic (pH of 12 to 13). Strong bases-like strong acidsare harmful, or caustic to skin.

**D**rying Portland Cement is hygroscopic-it absorbs water. In fact, Portland Cement needs water to harden. It will draw water away from any material it contacts-including skin.

Irrigate eyes with Water. Wash exposed areas of the body with soap and water – change clothing if contaminated with wet concrete.

Irritation of the skin and burning sensation particularly when exposure is in of the skin previously subjected to abrasion or irritation.

Open wounds and sores may be aggravated by exposure

# **Section 5: Fire-Fighting Measures**

N/A

# Section 6: Accidental Release Measures

Spill does not increase hazard

Material can be retained until it hardens when it can be disposed of as a common waste

# **Section 7: Handling and Storage**

Cement should be kept dry until it is mixed

There is an exothermic action that takes place once the ingredients mix although that for the most part disperses usually during the mixers drive to the delivery point. That helps expedite the drying time upon placement.

# **Section 8: Exposure Controls/Personal Protection**

Since this material is wet OSHA PEL (Permissible Exposure Limit) – TWA (Time Weighted Average) do not apply

Avoid contact between skin/eye and wet/moist concrete

Local and/or general exhaust is not required when concrete is wet

Respiratory protection is not required while concrete is wet

Waterproof and chemical resistant gloves should be worn. These may include well-fitted butyl, alkali-resistant gloves or nitrile gloves

Tight fitting goggles should be worn if there is a possibility of a concrete splash

Waterproof boots, long-sleeved shirt and full length trousers should be worn

# **Section 9: Physical and Chemical Properties**

Gray, plastic, flowable, granular composite

Faint odor

Vapor pressure does not apply

Odor threshold does not apply

Vapor density does not apply

pH for plastic concrete is 12.5

Relative density does not apply

Solubility in water is slight (0.01 to 1%)

Concrete is not flammable

Vapor pressure does not apply

Vapor density (Air + 1) does not apply

Specific Gravity ( $H_2O = 1$ ) is 2.28 - 2.42

# Reactivity: Concrete is not reactive Chemical stability: Concrete is a stable material Other Concrete hardens 2 to 8 hours and is no longer hazardous

# Section 11: Toxicological Information

Avoid contact between skin/eye and wet/moist concrete use of well-fitted butyl, alkali-resistant gloves or nitrile gloves is recommended

Tight fitting goggles should be worn if there is a possibility of a concrete splash to avoid contact with the eyes

# **Section 12: Ecological Information (non-mandatory)**

Plastic concrete should not present a serious ecological hazard.

Concrete hardens in a few hours and does not decompose

Caution must be taken to avoid allowing wet concrete to enter drains and waterways

Contain spillage, then collect and place in suitable containers for reuse or disposal.

### **Section 13: Disposal Considerations (non-mandatory)**

Material can be retained until it hardens when it can be disposed of as a common waste

Undelivered concrete should be retained in an area and in a manner that would prevent the material from entering drains or waterways

# **Section 14: Transport Information (non-mandatory)**

Freshly Mixed Unhardened Concrete does not have a DOT classification

# Section 15: Regulatory Information (non-mandatory)

Freshly Mixed Unhardened Concrete does not have classification

### **Section 16: Other Information**

Wet concrete should only be used by knowledgeable persons. Using this product safely requires the recognition that Portland cement chemically reacts with water; and that some of the intermediate products of the reaction, during the setting stage, are the cause of the hazards when handling this product.

While the information provided in this safety data sheet is believed to provide a useful summary of the hazards of concrete (as commonly used); one cannot anticipate and provide all of the information that might be needed in every

situation. Inexperienced product users should obtain proper training before using this product.

The data furnished in this safety data sheet does not address hazards that may be posed by other materials mixed with concrete or products containing Portland cement.

No representation of warranties with respect to the accuracy or correctness of this information, or of any kind of nature whatsoever are given, made or intended by **Top Cat Concrete**. No legal responsibility whatsoever is assumed for this information, or for any injuries or damages, however caused, which may result from the use of this information. This information is offered solely for informational purpose and is subject to your own independent investigation and verification.

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Date Developed: 7 March 2014

### TERMS AND CONDITIONS OF SALE:

Price, terms, and conditions shown on delivery ticket are valid for the project noted and the buyer agrees to accept the material after the project is awarded and within a reasonable time from the bid date. Seller reserves the right to meet competitive prices, terms and conditions of sale.

<u>Delivery Time:</u> The seller will make deliveries of materials at pre-arranged times but may, due to circumstances beyond control, not always be exactly on schedule and will not be liable for costs caused by delays. Quoted mixes are based on project specifications, as far as they are known, and are provided by seller in good faith to produce the results intended. Any changes or cancellations of original delivery instructions must be telephoned BEFORE loading starts

**Quality of Concrete:** Concrete is designed according to ACI / ASTM standards. Purchaser assumes **FULL RESPONSIBILITY** for strength, slump, and quality of concrete when additional water or other material is added or required on the jobsite. Seller has no control of the handling or finishing techniques of the buyer and no further control of the mix. Buyer also assumes responsibility for quality of material immediately before discharge from the chute. Top Cat Concrete is not responsible for reactive aggregate or color quality. Claims must be made at time of delivery.

<u>Jobsite Accessibility:</u> Buyer must provide suitable access to building sites from roadways and are responsible for towing charges should sellers equipment be unable to maneuver by it's own power due to unstable ground conditions like: mud, softness, ice, or snow. Buyer also assumes responsibility for all damages beyond the curb line on public or private property if delivery of concrete load is required beyond the curb line of property. Buyer also assumes the responsibility of providing an environmentally friendly wash out area for the truck to wash down after pouring. Failure to do so will result in a \$35 fee for the use of a wash out bag

<u>Property Damage Release:</u> When concrete is required to be unloaded inside the curb line of the property, the property damage release must be signed by the buyer. It is our wish to help you in every way that we can, but in order to do this, the driver is requesting that you sign this RELEASE relieving him and Top Cat Concrete from any responsibility from any damage that may occur to the premises and / or adjacent property, buildings, sidewalks, driveways, curbs, etc... as a direct result of placing the truck inside the curb line of the jobsite. The release located on front of delivery ticket must be signed by buyer PRIOR to placing truck beyond the curb line to unload concrete. Failure to do so will result in the load being sent back to its proper plant location and loss of refund to the buyer.

<u>Contingencies:</u> The seller will not be responsible for failure to make delivery when prevented by labor difficulties, inability to secure cement or other materials, accidents, equipment or plant breakdowns and repairs, or by reason of any other contingencies beyond seller's control.

### TERMS AND CONDITIONS (CON'T)

<u>Terms:</u> All payments of invoices must be received no later than 15 days from the invoice date to be eligible for a \$1.00 per cubic yard discount providing all previous balances have been paid. The discount is only applicable if provided in writing to customer on quote or other special arrangements with a member of our sales team. Top Cat Concrete reserves the right to cancel any and all discount terms at any time it deems applicable. All accounts will be past due after the 30th of the month following delivery. A finance Charge of 1.5% per month will be added to all accounts past due.

<u>Sales Tax:</u> Sales tax will be charged on all sales and invoices unless a tax exemption certificate is on file prior to shipment. Failure to provide a tax exempt certificate for a job within the same month of delivery will result in sales tax being charged. If the buyer seeks a refund of sales tax, the buyer must contact the state of Ohio to obtain refund.

<u>HEALTH WARNING:</u> Concrete contains Portland cement and is irritating to the eyes and skin. Wear rubber boots, gloves, and all necessary PPE when placing and finishing concrete. Avoid contact with eyes and prolonged contact with skin. In case of contact with skin or eyes, flush thoroughly with water. If irritation persists, get medical attention. Keep Children Away. Refer to the safety data sheet above for any further information or assistance.

<u>Checks:</u> Any check returned by our Bank for any reason will receive a \$50.00 Reclaiming Fee. For checks \$5000 and over, the fee increases to \$100.

<u>Unloading Time</u>: Beginning with initial discharge at site, 60 minutes per load is allowed for unloading. Overtime is charged at the rate of \$225.00 per hour.

<u>Saturday shipments</u>: There will be an additional \$15.00 per cubic yard charge to cover driver time. Saturday orders must be phoned in by 12 PM on the Friday before delivery. Saturday shipments are between 7-10 AM during construction season (April – November).

<u>Two Stop Charge:</u> When the driver moves the truck from scheduled unloading site to another within reasonable distance, and it is necessary to wash down, remove, and rehang chutes, a charge of \$200.00 will be applied for incidents of this kind.

<u>Washout Charges:</u> Trucks used in delivery of colored concrete material will have a \$150.00 per truck wash out charge.