Material Safety Data Sheet Crawford Laboratories, Inc.

Section 1-Product and Company Identification

Product Name: Florocrete Part C Chemical Name: Aggregate Blend Recommended Use: Use with Florocrete PT Company Identification: Crawford Laboratories, Inc. 4165 S. Emerald Ave. Chicago, Illinois 60609 Preparer: DS Product Support: 773 376-7132 Date Issued: 02-14-2012

Number of pages: 5

Emergency Contact: Chemtrec Phone: 800-424-9300

Section 2 - Composition / Information on Ingredients					
Crystalline Silica (Quartz)	10 mg/m ³ / %SiO2+2	OSHA PEL	Respirable Dust		
CAS 14808-60-7	30 mg/m ³ / %SiO2+2	OSHA PEL	Total Dust		
	.05 mg/m ³	NIOSH REL			
	.025 mg/m ³	ACGIH TLV			
Portland Cement	5 mg/m ³	OSHA PEL	Respirable Dust		
CAS 65997-15-1	15 mg/m ³	OSHA PEL	Total Dust		
	5 mg/m ³	NIOSH REL	Respirable Dust		
	10 mg/m ³	NIOSH REL	Total Dust		
	10 mg/m ³	ACGIH TLV			
Calcium Hydroxide	5 mg/m ³	OSHA PEL	Respirable Dust		
CAS 1305-62-0	15 mg/m ³	OSHA PEL	Total Dust		
	5 mg/m ³	NIOSH REL			
Gypsum	5 mg/m3	OSHA PEL	Respirable Dust		
CAS #13397-24-5	10 mg/m3	OSHA PEL	Total Dust		
	10 mg/m3	ACGIH TLV	Total Dust		
Chromates	0.05 mg (Cr)/m3	ACGIH TLV			
CAS Various	0.1 mg (CrO3)/m3	OSHA PEL			

OSHA Permissible Exposure Limits (PEL) and ACGIH Threshold Limit Values (TLV) are an 8-hour time-weighted average (TWA) concentration during a 40-hour workweek; NIOSH Recommended Exposure Limits (REL) is for up to a 10-hour workday during a 40-hour workweek.

Section 3 - Hazards Identification

Emergency Overview: Lung injury and cancer hazard. Material when wet or when dry material is exposed to moist areas of the body can cause tissue destruction (skin, eyes) in the form of chemical (caustic) burns. Do not breathe dust. Avoid contact with material.

Potential Health Effects:

Acute: The material irritates the respiratory tract and is corrosive to the eyes and the skin.

Chronic: The material may have effects on the lungs, resulting in fibrosis (silicosis). The material is carcinogenic to humans. Repeated or prolonged contact with skin may cause dermatitis, or skin sensitization.

Routes of Exposure - Overexposure or Hazard Symptoms:

Relevant Routes of Exposure

Eye contact, skin contact, inhalation, and ingestion.

Effects Resulting from <u>Eye Contact</u>:

Exposure to airborne dust may cause immediate or delayed irritation or inflammation. Eye contact by large amounts of dry powder

or splashes of wet portland cement may cause effects ranging from moderate eye irritation to chemical burns or blindness. Such exposures require immediate first aid (See Section 4) and medical attention to prevent significant damage to the eye.

Effects Resulting from <u>Skin Contact</u>:

Discomfort or pain cannot be relied upon to alert a person to hazardous skin exposure. Consequently, the only effective means of avoiding skin injury or illness involves minimizing skin contact, particularly with wet cement. Exposed persons may not discomfort until hours after the exposure has ended and significant injury has occurred. Dry portland cement contacting wet skin or exposure to moist or wet masonry cement may cause more severe skin effects including: thickening, cracking or fissuring of the skin. Prolonged exposure can cause severe damage in the form of (alkali) chemical burns. Some individuals may exhibit an allergic response upon exposure to portland cement, possibly due to trace elements of chromium. The response may appear in a variety of forms ranging from a mild rash to severe skin ulcers. Persons already sensitized may react to their first contact with the product. Other persons may first experience this effect after years of contact with portland cement products.

Effects Resulting from <u>**Inhalation:</u></u></u>**

Portland cement may contain trace amounts of free crystalline silica. Prolonged exposure to respirable free silica can aggravate other lung conditions and cause *silicosis*. a disabling and potentially fatal lung disease. Exposure to portland cement may cause irritation to the moist mucous membranes of the nose, throat, and upper respiratory system. It may also leave unpleasant deposits in the nose.

Effects Resulting from <u>**Ingestion:</u></u></u>**

Although small quantities of dust are not known to be harmful, ill effects are possible if larger quantities are consumed. Portland cement *should not* be eaten.

Carcinogenic potential:

Portland cement is not listed as a carcinogen by NTP, OSHA, or IARC. It may however, contain trace amounts of substances listed as carcinogens by these organizations. *Crystalline silica*, a contaminate in portland cement, is now classified by IARC as a known human carcinogen (Group I). NIP has characterized respirable silica as "reasonably anticipated to be a] carcinogen".

Medical conditions which may be aggravated by inhalation or dermal exposure: Pre-existing upper respiratory and lung diseases. Unusual (hyper) sensitivity to hexavalent (chromium+6) salts.

See Section 11 - Toxicological Information

Section 4 - First Aid Measures

Inhalation: Seek fresh air. If irritation persists, seek medical attention.

Eye Contact: Flush eyes immediately and thoroughly with water. Seek medical attention.

Skin Contact: Wash exposed skin with soap and water. If irritation persists, seek medical attention.

Ingestion: Rinse mouth. Dilute by drinking large quantities of water. Do not induce vomiting. Seek Medical attention.

Section 5 - Fire Fighting Measures

Extinguishing Media: Material is not flammable, non-combustible and non-explosive. Use media appropriate for surrounding fire. During emergency conditions, overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Seek medical attention.

Special Fire Fighting Procedures: Full protective equipment including self-contained breathing apparatus should be used.

Section 6 - Accidental Release Measures

Accidental Release: Use personal protective equipment recommended in Section 8. Clean up using dustless methods to minimize generation and distribution of respirable silica/cement particles. Sweep material into container and move to a safe place. Avoid contact with wet product. Avoid using compressed air and material entering sewers, drains or surface waters.

Section 7 - Handling and Storage

Handling: Use adequate ventilation and/or dust collection to keep dust below exposure limits as outlined in Section 2. Handle the product in accordance with strict hygiene and safety practices. Do not breathe dust and prevent dispersion of dust. Avoid contact with eyes and skin. Wear appropriate PPE as outlined in Section 8 when handling product.

Storage: Store in a dry, well-ventilated area out of direct sunlight. Keep containers closed. Protect from damage. Keep separated from strong acids.

Section 8 - Exposure Controls/Personal Protection

Local Exhaust: Use sufficient local exhaust to reduce the level of respirable dusts to below the PEL.

Respiratory Protection: Use NIOSH-approved air purifying or supplied-air respirator where airborne concentrations are expected to exceed exposure limits

Eye Protection: Use safety glasses, goggles, or face shield. Contact lenses should not be worn when working with this product.

Skin Protection: Use impervious gloves and clothing. Wash exposed skin with soap and water, and launder soiled work clothing. Avoid contact with wet material.

Use good personal hygiene. Do not eat, drink, or smoke when handling this product.

See Section 2 - Composition / Information on Ingredients for information on exposure limits.

Section 9 - Physical and Chemical Properties

Physical State: Solid Specific Gravity (Water = 1): NE Solubility in Water: Slightly Vapor Pressure: NE Melting Point: NE Boiling Point: NE Evaporation Rate (Butyl Acetate = 1): NE Vapor Density: NE

Section 10- Stability and Reactivity

Stability: Stable

Conditions to avoid: Unintentional contact with water.

Hazardous Polymerization: Cannot occur.

Chemical Incompatibility (Materials to Avoid): The material may react with strong oxidants, acids and aluminum metals. The material may react with water forming hardened hydrated compounds, releasing heat and producing an alkaline solution.

Hazardous Decomposition Products: Adding water to Portland produces (caustic) calcium hydroxide.

Section 11 - Toxicological Information

Product based information: There are limited toxicological data available for this product. Exposure can occur with the dry product or to dusts when hardened mortar is ground, cut, drilled, sanded or otherwise disturbed. Inhalation of the dusts can cause respiratory tract irritation with coughing and nasal discharge. Shortness of breath and reduced pulmonary function may also result from inhalation. Alveolar damage and pulmonary edema resulted in animal studies form exposure to the dry product.

Prolonged overexposure to the respirable dust can cause pneumoconiosis, silicosis (a permanent fibrotic lung disease) and potentially lung cancer. The dust from the material can cause inflammation of the lining tissue in the nose and inflammation of the cornea. Contact with the eyes may cause burns and permanent damage to the eyes. Skin contact with the wet product can cause burns (corrosive). Repeated or prolonged skin contact with the wet product can cause drying of the skin, dermatitis and possibly allergic skin reactions.

Carcinogen:	IARC-Yes	NTP-Yes	OSHA-No
See also Section 3 – Hazar	ds Identification		

Section 12 – Ecological Information

Ecotoxicity: No data available

Section 13 - Disposal Considerations

General: Disposal of the Material should be in accordance with the applicable federal, state and local laws and regulations.

Section 14 Transport Information

General Transport Statement: This product does not require classification by DOT.

Section 15 – Regulatory Information

SARA Title III (Superfund Amendments and Reauthorization Act) Section 302 Extremely Hazardous Materials: None

Section 304 Notification of Accidental Release: None

Sections 311/312 Hazard Categories:

Immediate (Acute) Health Effects: Yes Delayed (Chronic) Health Effects: Yes Section 313 Toxic Chemical Release Reporting: None

DHS (Department of Homeland Security) Appendix A: None

Federal Hazardous Substances Act:

Portland cement is a "hazardous substance" subject to statutes promulgated under the subject act.

Califor nia Proposition 65:

This product contains up to 0.05% (percent) of chemicals (trace elements) known to the State of California to cause cancer, birth defects, or other reproductive harm. California law requires the manufacturer to give the above warning in the absence of definitive testing to prove that the defined risks do not exist.

Section 16- Other Information

User's Responsibility: The OSHA Hazard Communication Standard 29 CFR 1910.1200 require that this material Safety Data Sheet be made available to your employees who handle or may be exposed to this product. Educate and train your employees regarding applicable precautions. Instruct your employees to handle this product properly.

Disclaimer: All information and opinions in this report are based on experience and computer programming which we believe to be reliable. We believe that the information contained herein is current as of the date of this report. Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of Crawford Laboratories, Inc, it's the user's obligation to determine the conditions of safe use of this product.

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End of Material Safety Data Sheet