

**Material Safety Data Sheet
For
Unhardened Concrete**

Section I – Identity

Manufacturer / Supplier

J.J. Kennedy, Inc.

1790 Rt. #588

Fombell, PA 16123

724-452-6260

Chemical Name & Synonyms: Plastic concrete, concrete slurry, unset concrete

Date Revised: August 2001

Section II – Hazardous Ingredients

Unhardened concrete is slurry of Portland cement, aggregate, silica sand and various admixtures used to enhance concrete performance characteristics.

	<u>CAS#</u>	<u>%</u>	<u>1994-95 TLV</u>	<u>OSHA PEL</u>
Portland Cement	65997-15-1	>1%	10 mg/m ³	15 mg/m ³ Total Dust 5 mg/m ³ Respirable Dust
Silica (quartz)	14808-60-7	>0.1%	0.05 mg/m ³ *	<u>10 mg/m³</u> % silica *+2
Calcium Oxide	1305-78-8	>1%	2 mg/m ³	5mg/m ³

*Respirable fraction

NOTE: Unhardened concrete is wet slurry and dusting is not a concern

Section III – Physical/Chemical Characteristics

Boiling Point:	Not applicable
Specific Gravity (H₂O=1):	2.20 – 2.60
Vapor Pressure (mmHg):	Not applicable
Melting Point:	Not applicable
Vapor Density (Air=1):	Not applicable
Evaporation Rate:	Not applicable
Solubility in Water:	Slight, 0.1-1.0%
Appearance and Odor:	Thick gray slurry, alkaline, earthy odor

Section IV – Fire and Explosion Hazard of Material

Flash Point (Method Used):	Not applicable
Flammable Limits:	Not applicable
LEL/UEL:	Not applicable
Extinguishing Media:	Not applicable
Special Firefighting procedures:	Not applicable
Unusual Fire and Explosion Hazards:	Not applicable

Section V – Health Hazard Data

Route of Exposure:	Inhalation?	No
	Skin?	Yes
	Eyes?	Yes
	Ingestion?	Yes

Health Hazards (acute and chronic):

Acute: Contact with unhardened concrete and bleed water can produce severe skin burns; development of pain symptoms may be delayed several hours. Irritation of both eyes and tissue lining of nose can be severe. Prolonged contact can cause severe alkali burns. Hypersensitive individuals may develop an allergic-type of dermatitis (cement in concrete may contain traces of chromium). Pre-existing skin conditions maybe worsened.

Chronic: Dermatitis can result from continued contact of unprotected skin with unhardened concrete. Exposure to respirable crystalline silica without the use of a respirator can cause silicosis. Shortness of breath, coughing, diminished work capacity, reduces lung volume and heart enlargement characterizes silicosis. Silicosis may aggravate other chronic conditions and may increase the risk of pulmonary tuberculosis infection.

Carcinogenicity	Calcium Oxide	Unhardened Concrete	Portland Cement	Silica (Quartz)
NTP:	No	No	Yes	No
IARC:	No	No	Yes	No
OSHA regulated:	No	No	No	No

Respiratory exposure to silica in unhardened concrete is not a concern

Emergency and First Aid Procedures: Irrigate eyes immediately and repeatedly with water and get prompt medical attention. Wash exposed skin areas with soap and water.

Section VI – Reactivity Data

Stability:	Unhardened concrete will consolidate and harden to a continuous mass, compressive strength increasing with time.
Incompatibility (Materials to Avoid):	Not applicable
Hazardous Decomposition or By-Products:	Not applicable
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	Not Applicable

Section VII – Precautions for Safe Handling and Use

Steps to be taken in case material is released or spilled: Emergency procedures are not required.

Waste disposal method: Material can be disposed of as common waste or returned to a container for later use if it is not contaminated.

Precautions to be taken in handling or storing: AVOID CONTACT WITH SKIN AND EYES. Skin of hands, feet, and lower legs, including the knees, is especially vulnerable (e.g., concrete finishers)

Other precautions: Use personal protective equipment (PPE) as described in Section VIII, Control Measures.

Section VIII – Control Measures

Respiratory protection: Respiratory protection should not be necessary when handling unhardened concrete. However, a NIOSH – approved dust respirator is recommended when handling dry cement or when cutting or otherwise abrading hardened concrete.

Ventilation: Local exhaust ventilation should not be necessary when handling unhardened concrete. However, local exhaust ventilation can be used to control airborne dust levels that may be generated while handling dry cement or when cutting or otherwise abrading hardened concrete.

Protective Gloves: Select chemical and abrasion resistant gloves to provide protection against skin contact with unhardened concrete and bleed water. Avoid contaminating the inside of protective gloves with concrete or bleed water.

Eye Protection: Use tight fitting goggles.

Other Protective Clothing or Equipment:

Use impermeable boots, gloves, aprons and clothing that will protect all potentially exposed skin and prevent contact with unhardened concrete and the bleed water. Immediately remove and/or rinse with fresh water, clothing that has become wetted or saturated by unhardened concrete or bleed water. Contaminated clothing that remains in contact with the skin can cause skin burns.

Work/Hygienic Practices:

Wash hands frequently during the work day with fresh water and pH-neutral soap. Immediately after working with unhardened concrete, workers should shower with pH-neutral soap and fresh water. Avoid placing hands in the rinse water used to clean tools: concrete residue in the rinse water causes the water to become highly alkaline. Precautions must be observed because the alkaline cement in the concrete causes severe burns without warning; little heat is sensed.

This product neither contains nor is directly manufactured with any controlled ozone depleting Substances, Class I and Class II.