



Material Safety Data Sheet (MSDS)

Material: Moderate Sulphate Resistance Cement

Section 01 - Identification

Supplier: Name: National Cement Factory Address: Post Box No.106077 ICAD-I, Musaffah, Abudhabi, U.A.E Telephone: (+971) 2 55 00 933, Fax : (+971) 2 55 009 44.	
Product Name: MSCem MSRC Type II Cement.	Formula: This product consists of finely ground MSRC cement Clinker mixed with a small amount of calcium sulfate (gypsum).
Chemical Family: Chemical compounds. Calcium silicate components and other calcium compounds containing iron and aluminum make up the majority of this product.	Chemical Name and Synonyms Moderate Sulfate Resistance Cement. MSRC is also known as hydraulic cement..

Section 02 – Components

Ingredient/component	CAS No.	Concentration percent (%) wt.
Moderate Sulfate Resistance Cement clinker (containing)	65997-15-1	90-98
-Tri Calcium Silicate, $3\text{CaO}\cdot\text{SiO}_2$	12168-85-3	50 - 62
-Di Calcium Silicate, $2\text{CaO}\cdot\text{SiO}_2$	10034-77-2	12 - 24
-Tri Calcium Aluminate, $3\text{CaO}\cdot\text{Al}_2\text{O}_3$	12042-78-3	5 - 8
-Tetra Calcium Aluminoferrite, a solid solution	12068-35-8	9 - 12
Calcium sulfate (gypsum) $\text{CaSO}_4\cdot 2\text{H}_2\text{O}$	13397-24-5	2 - 6
Calcium carbonate (limestone) CaCO_3	1317-65-3	0 - 10
Crystalline silica (quartz)	14808-60-7	0-0.6
Hexavalent chromium *	18450-29-9	Trace

***Hexavalent chromium is included due to dermal sensitivity associated with the component.**

Trace constituents: Moderate Sulfate Resistance Cement has a variable composition depending upon the cementitious products produced in the cement kiln. Small amounts of naturally occurring, but potentially harmful, chemical compounds might be detected during chemical analysis. These trace compounds might include free crystalline silica, potassium and sodium compounds; heavy metals including cadmium, hexavalent chromium, nickel and lead; and organic compounds. Other trace constituents may include calcium oxide (also known as free lime or quick lime).

Section 03 – Hazardous Identification

Emergency Overview

Moderate Sulfate Resistance Cement is a light gray powder that poses little immediate hazard. A single short-term exposure to the dry powder is not likely to cause serious harm. However, exposure to wet Moderate Sulfate Resistance Cement can cause serious, potentially irreversible tissue (skin or eye) destruction in the form of chemical (caustic) burns or an allergic reaction. The same type of tissue destruction can occur if wet or moist areas of the body are exposed for sufficient duration to dry Moderate Sulfate Resistance Cement.

Potential Health Effects

- *Relevant Routes of Exposure:* Eye contact, skin contact, inhalation, and ingestion
- *Effects resulting from eye contact:* Exposure to airborne dust may cause immediate or delayed irritation, burns or damage to the cornea.
- *Effects from skin contact:* May cause dry skin, redness, discomfort or irritation.
- *Effects resulting from inhalation:* Prolonged or repeated exposure may cause lung injury including silicosis due to the presence of crystalline free silica, which has been classified by IARC as a known (Group I) human carcinogen through inhalation. Prolonged exposure to respirable free crystalline silica can aggravate other lung conditions and cause silicosis, a disabling and potentially fatal lung disease and/or other diseases. Risk of injury or disease depends on duration and degree of exposure.
(Also see “Carcinogenic potential” below.) It may also leave unpleasant deposits in the nose.
- *Effects resulting from ingestion:* Although small quantities of this dust are not known to be harmful, ill effects are possible if larger quantities are consumed. Moderate Sulfate Resistance Cement should not be eaten.
- *Carcinogenic potential:* Moderate Sulfate Resistance Cement has not been listed as a carcinogen by NTP, OSHA, or IARC. It may, however, contain trace amounts of substances, such as silica, which are listed as carcinogens by these organizations. Crystalline silica, which may be present in Moderate Sulfate Resistance Cement in small amounts, has been listed by IARC as a known human carcinogen (Group I) through inhalation.
- *Medical conditions which may be aggravated by inhalation or dermal exposure:* pre-existing lung diseases.

Label Elements – Hazard pictograms (GHS-US):



Section 04 – First Aid

Eyes: Immediately flush eyes thoroughly with water. Continue flushing eye for at least 15 minutes, including under lids, to remove all particles. Call physician immediately.

Skin: Wash skin with cool water and pH-neutral soap or a mild detergent. Seek medical treatment for abrasions.

Inhalation of Airborne Dust: Remove to fresh air. Seek medical help if coughing or other symptoms do not subside. (Inhalation of gross amounts of Moderate Sulfate Resistance Cement requires immediate medical attention.)

Ingestion: Do not induce vomiting. If conscious, have the victim drink plenty of water and call a physician immediately.