

Material Safety Data Sheet (Working with Concrete)

The information herein does not purport to include all information. It should serve as a guide for skilled and experienced personnel

Material Name

Dry Concrete Mixtures	Hebrew
CONCRETE MIX	English
CEMENT + CEMENT CONCRETE SAND + GRAVEL, QUICK CONCRETE, READY MIX CONCRETE. PORTLAND	Additional names

D2A, E

Emergency code

Personal Protective Equipment

Gloves | P3 Dust Filter Mask | Protective Goggles

*Note: The level of required protection depends on the characteristics and circumstances of working with the material, such as the level of exposure, level of concentration in a given incident, and the type of incident, i.e. fire, leak, spill. The higher the level of exposure, or the higher level of uncertainty to exposure, then complete PPE is required, including a protective suit with an internal breathing apparatus. (A complete protective suit includes protective boots and protective gloves.) In the event of a fire, a combination of a protective fire suit and a protective suit for hazardous materials must be considered according to the circumstances. Make sure that you get a document from the manufacturer confirming that the PPE you purchased is appropriate for the type of material.

Toxicity

Value	Units	Method of penetration
	mg / kg	LC 50 respirator
Concentration thresholds		
200	PPM	TLV (TWA) Level of exposure per working day

Risk classification according to NFPA

Instability	Flammability	Health
R	F	H
0	0	1

Identifying marks

Solid powder	State of matter
Gray	Color

Table of Physical Properties

Material Composition

% Amount in	Chemical Formula	Chemical Composition
3-12	(CaO)3 SiO2	Tricalcium silicate
2-10	(CaO)2 SiO2	Dicalcium silicate
1-4	(CaO)4 Fe2O3 Al2O3	Tetra-calcium aluminoferrite
0-2	CaSO4	Calcium sulfate (gypsum)
0-1	Al2O3	Aluminum oxide
1-4	(CaO)3 Al2O3	Tricalcium aluminate
0-60	CaCO3	Calcium carbonate
0-2	MgO	Magnesium oxide
0-1	CaO	Free lime
0-90	SiO2	Silicon dioxide
0-0.0005	(Cr2O7)-2	Chromate
0-90		Shapeless, wet silica
0-25	MgCO3	Magnesium carbonate
0-10		Mica
0-10		Aluminum silicate
0-10	Fe2O3	Iron oxide

Properties

0.8-2.5	Gram/ cm3	Weight per unit volume
>10000C	Celsius	Boiling point
>10000C	Celsius	Melting point
0	Air = 1	Vapor density
Does not ignite	Celsius	Flash point
Does not ignite	Celsius	Autoignition temperature (kindling point)
Does not explode	Volume %	Explosion point
0.1-1%	Sol.	Solubility in water
0	Hg mm	Vapor pressure at temperature

Storage Instructions

Prevent uncontrolled spillage/ Store dry in closed containers of any type/ Keep away from water

Reacts vigorously with other chemicals/ Keep away from:

Hardens into concrete with water. Dissolves in hydrofluoric acid.

Reacts with strong oxidants such as: fluorine, chlorine, trifluoride and oxygen fluoride.

Workplace Hazards

May cause discomfort or even asphyxiation if exposed to large amounts of dust. There may also be nasal and throat discomfort. Prolonged inhalation may result in silicosis and lung disease caused by crystalline silica dust. Dust damage to the eyes can cause discomfort, a burning sensation, and corneal damage. Skin damage may cause dry skin, redness, and allergic reactions. Ingestion of large amounts may cause intestinal dysfunction.

Emergency Instructions

Does not burn. Use a breathing mask to limit dust and smoke exposure in case of fire in which cement dust is being emitted.	Fire
Wind may disperse dust from spilled material. Collect the spilling in order to reduce dust hazard.	Spillage
First Aid	
Move the injured to open air. Seek medical attention if discomfort persists.	Breathing
Do not encourage vomiting. Drink lots of water. Seek medical attention if discomfort persists.	Swallowing
Wash with running water and soap. Apply moisturizer if skin feels dry Seek medical attention if burning sensation persists.	Skin Contact
Wash thoroughly with running water . Seek immediate medical attention to wash eyes due to risk of blindness and corneal abrasion.	Eye Injury
*** When giving first aid, wear personal protective equipment, as necessary.	