



Material Safety Data Sheet

SECTION 1 COMPANY AND PRODUCT IDENTIFICATION	
PRODUCT NAME Ready-mix Concrete	Revised: March 2006
SYNONYMS Concrete, cement, mud, & ready-mix	
MANUFACTURER Southern Star Concrete Inc. 8500 Freeport Parkway, Suite 200 Irving, Tx 75063	EMERGENCY PHONE NUMBER 972.621.0999 == D/FW Office 713-273-2700 == Houston Office 501-791-0100 == Little Rock Office 972-342-5511 == 24 Hrs

SECTION 2 COMPOSITION & INFORMATION ON INGREDIENTS		
OSHA REGULATORY STATUS N/A		
HAZARDOUS COMPONENTS N/A	CAS NUMBER	% BY WEIGHT
OTHER SIGNIFICANT COMPONENTS	CAS NUMBER	% BY WEIGHT
Aggregate*	Mixture	60-100
Limestone (Calcium Carbonate)	1317-65-3	0-100
Crystalline Silica	14808-60-7	> 1
Portland Cement	65997-15-1	3-40

SECTION 3 HAZARDS IDENTIFICATION
EMERGENCY OVERVIEW Remove all concrete upon contact and flush affected areas with clean water. Seek medical attention if irritation occurs.
PHYSICAL HAZARDS Concentrations of 1% or more of cement, flyash, and silica sand.
PRIMARY ROUTES OF EXPOSURE

Inhalation & Skin Contact

POTENTIAL EFFECTS AND SYMPTOMS OF ACUTE EXPOSURE

Eye Contact: Direct contact with dust may cause irritation by mechanical abrasion.

Skin Contact: Wet concrete in plastic state can dry the skin and cause alkali irritation. Direct contact in dry state may cause irritation by mechanical abrasion.

Skin Absorption: Not expected to be a significant exposure route.

Ingestion: Ingestion of large amounts may cause gastrointestinal irritation and blockage.

Inhalation: Dust may irritate the nose, throat, and respiratory tract by mechanical abrasion. Coughing, sneezing, and shortness of breath may occur following exposures in excess of appropriate exposure levels.

POTENTIAL EFFECTS AND SYMPTOMS OF CHRONIC EXPOSURE

Chronic exposure to respirable limestone dust in excess of appropriate exposure limits may cause lung disease. Silicosis may result from excessive exposure to respirable silica dust for prolonged periods. Not all individuals with silicosis will exhibit symptoms. Silicosis is progressive and symptoms can appear at any time, even after exposure has ceased. Symptoms may include shortness of breath, coughing, or right heart enlargement and/or failure. Persons with silicosis have an increased risk of pulmonary tuberculosis infection. Tobacco smoking may increase the risk of developing lung disorders, including emphysema and lung cancer.

CARCINOGENICITY

Ready-mix concrete is not listed as a carcinogen by the National Toxicology Program (NTP), OSHA or the International Agency for Research on Cancer (IARC). However, crystalline silica is now classified by the IARC as a known human carcinogen (Group 1). The NTP has characterized respirable silica as "reasonably anticipated to be [a] carcinogen" (Group 2). Prolonged and repeated breathing of silica may cause lung cancer.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Inhaling respirable dust may aggravate existing respiratory system disease(s) and/or dysfunctions such as emphysema or asthma. Exposure may aggravate existing skin and/or eye conditions.

SECTION 4 FIRST AID MEASURES

INHALATION

Remove to fresh air. Dust in throat and nasal passages should clear spontaneously. Contact a physician if irritation persists or later develops.

EYE CONTACT

Immediately flush eye(s) with plenty of clean water for at least 15 minutes, while holding the eyelid(s) open. Beyond flushing, do not attempt to remove material from the eye(s). Contact a physician if irritation persists or later develops.

SKIN CONTACT

Wash skin with soap and water. Contact a physician if irritation persists or later develops.

INGESTION

If person is conscious, give large quantity of water and induce vomiting; however, never attempt to make an unconscious person drink or vomit. Get immediate medical attention.

SECTION 5 FIRE FIGHTING MEASURES

<i>FLASH POINT</i>	<i>FLAMMABLE LIMITS</i>
N/A	N/A

EXTINGUISHING AGENTS

None

UNUSUAL FIRE AND EXPLOSION HAZARDS

Contact with powerful oxidizing agents may cause fire and/or explosions (see Section 9 of this MSDS).

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Spills should be contained and not allowed to enter public waterways. Wet concrete should be removed from roads immediately. Follow personnel protective equipment recommendations in Section 8 of the MSDS sheet.

SPILL AND LEAK PROCEDURES

Spilled materials, where dust can be generated, may overexpose cleanup personnel to respirable silica and dust. Wetting of spilled material and/or use of respiratory protective equipment may be necessary. Do not dry sweep spilled material. Flush away with water or break up into manageable sized units.

SECTION 7 HANDLING AND STORAGE

HANDLING PRECAUTIONS

Respirable silica and dust may be generated during processing, handling, and storage. The personal protection and controls identified in Section 8 of the MSDS should be applied as appropriate.

RECOMMENDED STORAGE CONDITIONS

Do not store or handle near food and beverages or smoking materials.

SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

<i>EXPOSURE LIMITS AND GUIDELINES</i>	<i>OSHA TWA</i>	<i>ACGIH TLV</i>
<i>COMPONENT & CAS #</i>		
Calcium Carbonate	5 mg/m ³ , (respirable fraction) 15 mg/m ³ (total dust)	10 mg/m ³ (total dust)
Crystalline Silica SiO₂	(respirable) 10 mg/m ³ ÷ (% SiO ₂ +2), (total dust) 30 mg/m ³ ÷ (% SiO ₂ +2)	10 mg/m ³ ÷ (% SiO ₂ +2)

<u>Portland Cement:</u>	(respirable) 5 mg/m ³ , (total dust) 15 mg/m ³	10 mg/m ³
<u>Other Particulates:</u>	(total particulate, not otherwise regulated) 15 mg/m ³ , (respirable particulate, not otherwise regulated) 5 mg/m ³	10 mg/m ³ (nuisance particulates) 10 mg/m ³ .

ENGINEERING CONTROLS

Ventilation: Local exhaust or general ventilation adequate to maintain exposures below appropriate exposure limits.

RESPIRATORY PROTECTION

When dust or silica levels exceed or are likely to exceed appropriate exposure limits, follow MSHA or OSHA regulations, as appropriate, for use of NIOSH-approved respiratory protection equipment.

EYE PROTECTION

Eyeglasses with side shields should be worn as minimum protection. Dust goggles should be worn when excessive (visible) dust conditions are present or anticipated. Contact lenses should not be worn when working with this product.

SKIN PROTECTION

Protective gloves, shoes and protective clothing should be worn to avoid contact with skin.

ADDITIONAL PROTECTIVE MEASURES

Hygiene: Wash dust-exposed skin with soap and water before eating, drinking, smoking, and using toilet facilities. Wash work clothes after each use.
Respirable dust and silica levels should be monitored regularly. Dust and silica levels in excess of appropriate exposure limits should be reduced by all feasible engineering controls, including (but not limited to) wet suppression, ventilation, process enclosure, and enclosed employee work stations.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE Light grey viscous semi-solid with dispersed aggregates	SPECIFIC GRAVITY 2.6 – 2.75 H ₂ O = 1.0
COLOR Light grey	EVAPORATION RATE N/A
ODOR N/A	VAPOR DENSITY (AIR = 1) N/A
BOILING POINT N/A	pH 12.0

<i>VAPOR PRESSURE</i>	<i>SOLUBILITY IN WATER</i>
N/A	Not Soluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY

Stable, but reaction with acid will liberate heat. Contact with hydrochloric acid will liberate chlorine gas. Avoid contact with incompatible materials.

INCOMPATIBILITY

Contact with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride and oxygen difluoride may cause fire and/or explosion. Silica dissolves in hydrofluoric acid producing a corrosive gas – silicon tetrafluoride. Avoid direct contact with strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS

Respirable dust particles may be generated when ready-mix concrete is sawed or ground.

HAZARDOUS POLYMERIZATION

Will not occur. No conditions to avoid.

CONDITIONS TO AVOID

Powerful oxidizing agents and acid. Extreme heat causes concrete to spall molten particles.

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA

Wet concrete is not known to be toxic. Toxicity related to major components of concrete: cement, fly ash, and silica sand are negated in wet concrete form. The matrix precludes the inhalation of these constituents which could normally be of an occupational safety concern. The admixture and air entraining agents are sulfonate solutions which are not considered toxic.

SECTION 12 ECOLOGICAL INFORMATION

ECOLOGICAL DATA

Wet concrete is not considered toxic to the environment. However, negative impact can occur due to hardening concrete and disruption of biological processes if spilled into public waterways. Negative impact can also occur if wet concrete is spilled into sewer or drainage conduits where it can harden and clog the system.

SECTION 13 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Dispose of waste materials only in accordance with applicable federal, state, and local laws and regulations.

SECTION 14 TRANSPORT INFORMATION	
<i>DOT HAZARD CLASS</i>	
None	
<i>DOT PLACARD</i>	
N/A	

SECTION 15 REGULATORY INFORMATION	
<i>US FEDERAL REGULATIONS</i>	
<i>SARA 313</i>	
None	
<i>CERCLA 103</i>	
None	
<i>RCRA HAZARDOUS WASTE</i>	
None	
<i>STATE REGULATIONS COMPONENT</i>	<i>STATE REGULATORY LIST</i>
N/A	N/A

SECTION 16 OTHER INFORMATION	
<i>FOR FURTHER INFORMATION, CONTACT:</i>	
Divisional Environmental or Safety Manager	

NOTICE: Based on research of available data, Southern Star Concrete Inc. believes that the information contained in this Material Safety Data Sheet is accurate. The suggested procedures are based on data and experience as of the date of preparation of the MSDS. The suggestions should not be confused with nor followed in violation of applicable laws, regulations, rules or insurance requirements. Southern Star concrete Inc.'s voluntary preparation of this MSDS should not be construed, in any way, as an agreement to be subject to OSHA jurisdiction.