Safety Data Sheet (SDS) for:
Chandler Concrete Co., Inc. & Chandler Concrete of VA.
READY MIXED CONCRETE / CONCRETE

Section 1 – Identification

Product Identifier
Product Form: Mixture
Product Name: Ready Mixed Concrete (Concrete)

Manufacturer's Name: Chandler Concrete Company, Inc.	***Emergency Telephone Number:*** CHEMTREC – (800) 424-9300
Address: 1006 S. Church St. Burlington, NC 27216	***Telephone Number for Information:*** (336) 226-1181
Recommended Use: Concrete is widely used as a structural component in many construction applications. This SDS covers many types of Concrete. Individual composition of hazardous constituents may vary between types / different mix designs of Concrete.	***Other means of Identification:*** Ready Mixed Concrete, Concrete Ready Mix, Portland Cement Concrete, Ready Mix Grout, Permeable Concrete, Shotcrete, Gunite, Colored Concrete, Flowable Fill, Roller-Compacted Concrete, Fiber Reinforced Concrete.

Section 2 – Hazard Identification

WARNING

Corrosive-causes severe burns.
Toxic-Harmful by inhalation.
(may contain crystalline silica)

Use proper engineering controls, work practices, and personal protective equipment to prevent exposure to wet or dry product.

Classification of the Substance or Mixture
Classification (GHS-US)

▪ Eye Dam.	1	H318	Serious eye damage/eye irritation Category 1
▪ Skin Corr.	1A	H314	Skin corrosion/iirriation Category 1A
▪ Skin Sens.	1	H317	Skin sensitization Category 1
▪ STOT SE	3	H335	Specific target organ toxicity (single exposure) Category 3

Precautionary Statements (GHS-US):

- P260 - Do not breathe vapors, mist, or spray.
- P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P280 - Wear protective gloves, protective clothing, and eye protection.
- P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
- P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.
- P304+P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
- P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 - Immediately call a poison center or doctor.
- P314 - Get medical advice/attention if you feel unwell.
- P321 - Specific treatment (see section 4 on this SDS).
- P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
- P362+P364 - Take off contaminated clothing and wash it before reuse.
- P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

HAZARD NOTES: Unhardened concrete is an odorless semi-fluid, flowable, granular paste of varying color and texture. It is not combustible or explosive. Exposure of sufficient duration to wet concrete can cause serious, potentially irreversible tissue (skin, eye, respiratory tract) damage due to chemical (caustic) burns, including third degree burns.

Section 3 – Composition / Information on Ingredients

Hazardous Components (Chemical Identity/Common Names)	**CAS No.**	**OSHA PEL**	**ACGIH TLV**	**MSHA PEL**	**%**
Portland Cement	65997-15-1	5mg/m^3 (Respirable) 15mg/m^3 (Total)	10mg/m^3 (Total)	10mg/m^3 (Total)	10-30%
Limestone ($CaCo_3$) (Calcium carbonate, present, if limestone aggregates are used)	1317-65-3 (Total)	15mg/m^3 (Total)	10 mg/m^3 (Total)	10mg/m^3	0-65%
Crystalline Silica (Quartz) (Concrete aggregates may contain silica)	14808-60-7	10 mg/m^3 % SiO_2 + 2 (respirable) 30 mg/m^3 % SiO_2 + 2 (total dust) 250 million part/ft^3 % SiO_2 + 5	0.05 mg/m^3 (Total Respirable quartz)	30 (%SiO_2+2)mg/m^3 (Total) 10/(%SiO_2+2)mg/m_3 (Respirable particulate)	0.5-80%
Ashes, residues	68131-74-8	15 mg/m^3 (Total) 5mg/m^3 (Respirable)	10 mg/m^3 (Total) 3.0 mg/m^3 (Respirable)	15 mg/m^3 (Total) 5mg/m^3 (Respirable)	0-15%
Slags, ferrous metal, blast furnace	65996-69-2	Not established	Not established	Not established	0-15%
Particulates not otherwise Classified		15 mg/m^3 (Total) 5mg/m^3 (Respirable)	10mg/m^3 (Inhalable) 3mg/m^3 (Respirable)	10mg/m^3 (Total)	0-100%
Aluminum Oxide (Al_2O_3)	1344-28-1	15mg/m^3 (Total) 5mg/m^3 (Respirable)	10mg/m^3	10mg/m^3	0.1-2%
Amorphous Silica	61790-53-2	80mg/m^3 /(%SiO_2)	10mg/m^3 (Total) 3mg/m^3 (Respirable)	20mppcf	0.01-3%
Calcium Oxide (CaO)	1305-78-8	5mg/m^3	2mg/m^3	5mg/m^3	0-1%
Iron Oxide (as Fe_2O_3)	1309-37-1	10mg/m^3	10mg/m^3	10mg/m^3	0.1-2%

Note: Chemical admixtures may be present in quantities less than 1%.
Trace Materials: Due to the use of substances from the earth's crust, trace amounts of naturally occurring, potentially harmful constituents may be detected during chemical analysis. Portland cement may contain trace (<0.05%) amounts of chromium salts or compounds (including hexavalent chromium) or other metals (including nickel compounds, lead and mercury) found to be hazardous or toxic in some other forms. Other trace constituents may include potassium and sodium sulfate compounds and others.

Section 4 – First Aid

Eye Contact: Rinse eyes thoroughly with water for at least 15 minutes, including under lids, to remove all particles. Seek medical attention for eye contact with concrete.

Skin Contact: Wash with cool water and a pH neutral soap or a mild skin detergent. Seek medical attention for rash, burns, irritation, dermatitis, and prolonged unprotected exposures to wet concrete.

Inhalation: Move person to fresh air. Seek medical attention for discomfort or if coughing or other symptoms do not subside.

Ingestion: Do not induce vomiting. If conscious, have person drink plenty of water. Seek medical attention or contact poison control center immediately.

Section 5 – Firefighting Measures

Flash Point: Not Combustible	**Flammable Limits**: Not flammable	**LEL**: N/A	**UEL**: N/A

Extinguishing Media: This material is noncombustible. Use extinguishing media appropriate to surrounding fire.

Unusual Fire and Explosion Hazards: None reported.

Section 6 – Accidental Release Measures

Steps to be taken in Case Material is Released or Spilled: Personnel involved with the handling of wet unhardened concrete should take steps to avoid contact with the eyes and skin, through the use of gloves and suitable clothing as described in Section 8. Wet unhardened concrete should be recycled or allowed to harden and disposed. Do not wash concrete down sewage and drainage systems or into bodies of water (e.g. lakes, streams, wetlands, etc.).

Waste Disposal Method: Place spilled material into a contained area and allow wet unhardened concrete to harden and dispose in a landfill as common solid waste. Follow applicable Federal, State, and local regulations for disposal. Uncontaminated ready mixed concrete is neither a listed nor a characteristic hazardous waste under designations by the USEPA or USDOT.

USDOT Class: Uncontaminated ready mixed concrete does not meet any hazardous material class definition found in Title 49 Code of Federal Regulations Part 173.

Precautions to Be Taken in Handling and Storing: Silica-containing respirable dust particles may be generated by crushing, cutting, grinding, or drilling hardened concrete or concrete products. Follow protective controls defined in Section 8 when handling these products.

Section 7 – Handling and Storage

Handling: When cutting, grinding, crushing or drilling hardened concrete, use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits.

Engineering Controls:
Supplemental controls are not required when working with wet/unhardened concrete.

Section 8 – Exposure Controls / Personal Protection

Eye Protection: When cutting, grinding, crushing, or drilling hardened concrete wear safety glasses with side shields or dust goggles in dusty environments. When there is a splash hazard working with wet unhardened concrete, wear safety glasses with side shields or goggles.

Protective Gloves: When handling wet unhardened concrete, wear water proof gloves to prevent skin contact. Wash thoroughly with water and a pH-neutral soap after handling.

Foot Protection: Water proof boots suitable for abrasive and caustic environment.

Respiratory Protection: When exposed to dust from cutting, grinding, crushing, or drilling hardened concrete or concrete products above recommended limits, wear a suitable NIOSH –approved respirator with protection factor appropriate for the level of exposure. For emergency or non-routine operations (e.g., confined spaces), additional precautions or equipment may be required. Respirator use must comply with applicable MSHA or OSHA standards.

Local Exhaust Ventilation and/or surface wetting of concrete: When cutting, grinding, crushing, or drilling hardened concrete, provide general or local exhaust ventilation systems as needed to maintain airborne dust concentrations below the OSHA PELs, MSHA PELs, and ACGIH TLVs.

Other: Respirable dust and quartz levels from hardened concrete cutting, grinding, crushing or drilling operations should be monitored regularly. Dust and quartz levels in excess of applicable OSHA PELs, MSHA PELs, and ACGIH TLVs should be reduced by all feasible engineering controls.

Mechanical (General): See above recommendations.

Special: None reported.

Other Protective Clothing or Equipment: Wear suitable protective clothing, as needed, to prevent skin contact with unhardened concrete. This includes waterproof boots and NIOSH-approved respirators when exposure exceeds applicable limits.

Work/Hygienic Practices: Contact with wet unhardened concrete, mortar, cement or cement mixtures can cause skin irritation, severe chemical burns, or serious eye damage. Avoid contact with eyes and skin. Wear waterproof gloves, a fully buttoned long-sleeved shirt, full-length trousers, and tight fitting eye protection when working with these materials. If you have to stand in wet concrete, use waterproof boots that are tight at tops and high enough to keep concrete from flowing into them. If you are finishing concrete, wear waterproof knee pads to protect knees. Wash wet concrete, mortar, cement, or cement mixtures from your skin with fresh, clean water and a pH-neutral soap immediately after contact. Indirect contact through clothing can be as serious as direct contact, so promptly rinse out wet concrete, mortar, cement or cement mixtures from clothing, Seek immediate medical attention if you have persistent or severe discomfort. In case of eye contact, flush with plenty of water for at least 15 minutes. Consult a physician immediately. **KEEP OUT OF REACH OF CHILDREN** Avoid dust inhalation and direct contact with skin and eyes. Wash contaminated skin before eating, drinking, smoking, lavatory use and before applying cosmetics.

Section 9 – Physical and Chemical Properties

Boiling Point	Not Applicable	**Specific Gravity (H_2O=1)**	Wet Concrete 1.9 to 2.4
Vapor Pressure (mm Hg)	Not Applicable	**Melting Point**	Not Applicable
Vapor Density (Air = 1)	Not Applicable	**Evaporation Rate (Butyl Acetate = 1)**	Not Applicable

Solubility in Water: not soluble

Appearance and Odor: Hardened concrete products are odorless solid materials. Unhardened wet concrete is an odorless gray, plastic, flowable, granular mud of varying color and texture.

Section 10 – Stability and Reactivity

Stability: Wet unhardened concrete sets and hardens in approximately 2-8 hours and is no longer hazardous.

Hardened concrete is stable. Conditions to avoid: Do not allow wet unhardened concrete to harden on tools or surfaces. Product hardens in approximately 2–8 hrs.

Incompatibility (Materials to avoid): Stable under expected conditions of use. Under unanticipated conditions of use, crystalline silica may react with hydrofluoric acid to produce a corrosive gas (silicon tetra fluoride). Aluminum powder and other alkali and alkaline earth metals will react in wet mortar or concrete, liberating hydrogen gas.

Hazardous Decomposition or Byproducts: Thermal oxidative decomposition of $CaCO_3$ (limestone) can produce lime (CaO). The lime does not add to the hazards associated with the use of the product. **Note: Hazardous Polymerization will not occur.**

Section 11 – Toxicological Information

Information on toxicological effects

Fresh concrete is abrasive and alkaline.

-If swallowed it can cause burns to the mouth, aesophagus and stomach.

-If in contact with the skin it can cause burns and abrasions. Prolonged or frequent contact can cause irritation dermatitis.

-If in contact with the eyes, it can cause irritation to the eyelids, cornea (conjunctivitis) and lesions to the eyeball.

Section 12 – Ecological Information

Ecotoxicity: only relevant in accidental spillages of fresh concrete. If it reaches water, it can result in a slight rise in pH.

Hardened concrete is inert.

Persistence and degradability. Not applicable.

Bio accumulative potential Not applicable.

Mobility in soil Not applicable.

Results of PBT and vPvB assessment Not applicable.

Other adverse effects None.

Section 13 – Disposal Considerations

Waste treatment methods

Fresh concrete: subject to local regulations.

Hardened concrete: can be recycled. Inert. Disposal subject to local regulations.

Section 14 – Transport Information

USDOT Class: Uncontaminated ready mixed concrete does not meet any hazardous material class definition found in Title 49 Code of Federal Regulations Part 173.

Section 15 – Regulatory Information

OSHA/MSHA Hazard Communication:

This product is considered by OSHA/MSHA to be a hazardous material and should be included in the employer's hazard communication program.

CERCLA/SUPERFUND: This product is not listed as a CERCLA hazardous substance.

EPCRA SARA Title III:

This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of the Superfund

Amendment and Reauthorization Act of 1986 and is considered a hazardous and a delayed health hazard.

EPCRA SARA Section 313:
This product may contain substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

RCRA If discarded in its hardened form, this product would not be a hazardous waste either by listing characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA: Portland Cement and crystalline silica are exempt from reporting under the inventory update rule.

California Proposition 65:
Crystalline silica (airborne particulates of respirable size) and Chromium (hexavalent compounds) are substances known by the State of California to cause cancer.

WHMIS/DSL: Products containing crystalline silica and calcium carbonate are classified as D2A, E and are subject to WHMIS requirements.

Section 16 – Other Information

*Disclaimer:

This Safety Data Sheet is designed for most of our concrete products. Certain customer specified additives may not be covered or included in this SDS. This SDS represents ingredients and values typical for our Portland cement concrete, concrete and its constituent ingredients may vary in composition. Information on specific aggregates, cementitious materials, water and admixtures may be provided by the supplier upon request.

The information contained in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

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