

### SECTION 1 – CHEMICAL PRODUCT AND COMPANY INFORMATION

<b>PRODUCT NAME:</b> Portland Cement	<b>MANUFACTURER:</b> Consolidated Aggregates
<b>PRODUCT TYPES:</b> Type I, Type II, Type IL & Type IS	1205 Palestine, Road
<b>PRODUCT USAGE:</b> Footings, slabs, posts, block & mortar repair	Picayune, MS 39466 (USA)
	TEL: 601-798-3158 E: info@consolidatedaggregates.com
<b>EMERGENCY:</b> Call Poison Control	<b>MEDICAL:</b> Call 911

### SECTION 2 – Composition/ Information of Ingredients

Hazardous Ingredients	%	CAS #	LD 50	LC 50
Silica Quartz	40-70	14808-60-7		
Portland Cement	10-30	65997-15-1		

### SECTION 3 – HAZARDOUS IDENTIFICATION

Components	CAS #	EC #	Concentration, %
Silica Quartz	14808-60-7	n/a	40-70
Portland Cement	65997-15-1	n/a	10-30
Lime	1317-65-3	n/a	5
Gypsum (Ca(SO <sub>4</sub> ).2H <sub>2</sub> O)	13397-24-5	n/a	5
Aluminum Oxide	1344-28-1	n/a	5

Route of Entry	Eye contact, skin contact, inhalation, and ingestion.
<b>Eyes</b>	Exposure to airborne dust may cause immediate or delayed irritation or inflammation. Eye contact by larger amounts of dry powder or splashes of wet cement may cause effects ranging from moderate eye irritation to chemical burns and blindness. Such exposure will require immediate first aid (see Section 4) and medical attention.
<b>Skin</b>	Exposure to dry cement may cause drying of the skin with consequent mild irritation or more significant effects attributable to aggravation of other conditions. Dry Cement in prolonged contact with wet skin or prolonged exposure to moist or wet cement may cause more severe skin effects including thickening, cracking, fissuring of the skin, or severe skin damage in the form of (caustic) chemical burns.
<b>Inhalation</b>	Mild exposure to Cement may cause irritation to the moist mucous membranes of the nose, throat, and upper respiratory system. It may also leave unpleasant deposits in the nose. Concrete Mix contains crystalline silica. Prolonged exposure to respirable crystalline silica may aggravate other lung conditions. It may also cause delayed lung injury, including silicosis, cancer, tuberculosis, and/or other diseases.
<b>Ingestion</b>	Although small quantities of dust are not known to be harmful, ill effects are possible if larger quantities are consumed. Concrete Mix should not be ingested.

#### PICTOGRAMS:



## SECTION 4 – FIRST AID MEASURES

<b>EMERGENCY INFORMATION:</b> The adverse health effects from crystalline silica exposure-silicosis, cancer, scleroderma, tuberculosis, and nephrotoxicity- are chronic effects.	<b>EYES:</b> Immediately flush eye thoroughly with water. Continue flushing eye for at least 15 minutes, including under lids, to remove all particles. Call the physician immediately. <b>SKIN:</b> Wash skin with cool water and pH-neutral soap or a mild detergent. Seek medical treatment if irritation or inflammation develops or persists. Seek immediate medical treatment in the event of burns. <b>INHALATION:</b> Remove person to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration. Seek medical help if coughing and other symptoms do not subside. Inhalation of large amounts of product requires immediate medical attention. <b>INGESTION:</b> Do not induce vomiting. If conscious, have victim drink plenty of water and call a physician immediately.
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## SECTION 5 – FIREFIGHTING MEASURES

<b>SUITABLE EXTINGUISHING MEDIA:</b>	Use an extinguishing agent suitable for the surrounding fire.
<b>UNSUITABLE EXTINGUISHING MEDIA:</b>	Do not use water jet and halogenated compounds
<b>SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:</b>	This product is non-flammable and non-combustible. Containers at risk from fire should be cooled with water spray and, if possible, removed from the danger area.
<b>HAZARDUS COMBUSTION PRODUCTS:</b>	None.
<b>SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS:</b>	Firefighters should wear full protective gear.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

<b>EMERGENCY PROCEDURES:</b>	Keep unnecessary and unprotected personnel from entering spill area. Do not touch or walk through spilled material.
<b>PROTECTIVE EQUIPMENT:</b>	Use exposure control and personal protection methods as described in Section 8. Ensure adequate ventilation/exhaust extraction. Avoid inhalation of dust and contact with skin and eyes during clean up.
<b>PROPER METHODS OF CONTAINMENT:</b>	Collect dry material using a scoop. Avoid actions that cause dust to become airborne. Do not dry sweep. Avoid inhalation of dust and contact with skin. Vacuum dust with equipment fitted with HEPA filter and place in a designated labeled waste container. If material is wet, scrape up wet material and place in an appropriate container. Allow the material to dry before disposal. For major spills: approach from upwind. Prevent wind dispersal.
<b>CLEANUP:</b>	Seal the container(s), remove from spill area and properly dispose of the waste material in accordance with existing federal, state and local regulations.
<b>ENVIRONMENTAL PRECAUTIONS:</b>	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater, basements or confined areas. Large spills in waterways may be hazardous due to alkalinity of the certain components of the product. Inform the relevant authorities if the product has accessed waterways or other natural areas. See Section 12 for more details.

## SECTION 7 – HANDLING AND STORAGE

<b>PRECAUTIONS FOR SAFE HANDLING:</b>	Do not breathe dust. Use adequate ventilation and/or dust collection methods. Use all available work practices to control dust exposures, such as water sprays. Do not permit dust to collect on walls, floors, sills, ledges, machinery, or equipment. Avoid breakage of bagged material or spills of bulk material. Wear appropriate respiratory, eye and skin protection. Avoid contact with skin and eyes. Wash hands thoroughly after handling. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Hands and/or face should be washed before eating, drinking and smoking and at the end of the shift. Remove contaminated clothing and protective equipment before entering eating areas. Wash or vacuum clothing when becomes dusty. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure by obtaining and following special instructions before use. Do not handle until all safety precautions have been read and understood.
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**SECTION 7 – HANDLING AND STORAGE cont.****PRECAUTIONS FOR STORAGE:**

Store in original or approved alternative container protected from direct sunlight in a dry, cool and well-ventilated area away from incompatible materials (see below for details) and food and drink. Keep container tightly closed and sealed until ready for use.

**SECTION 8 – PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION****OSHA's PERMISSIBLE EXPOSURE LIMITS (PEL)**

COMPONENTS	CAS #	OSHA PEL	ACGIH TLV	NIOSH IDLH
Quartz	14808-60-7	30/(%SiO <sub>2</sub> +2) mg/m <sup>3</sup> TWA, Total Dust;250/(%SiO <sub>2</sub> +5) mp-pcf TWA,respirable fraction; 10/(%SiO <sub>2</sub> +2) mg/m <sup>3</sup> TWA, respirable TWA: 0.1 mg/m <sup>3</sup> (vacated)	TWA: 0.025 mg/m <sup>3</sup> respirable fraction	N/A
Portland Cement	65997-15-1	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction TWA: 50 mppcf &lt;1% Crystalline silica	TWA: 1 mg/m <sup>3</sup> particulate matter containing no asbestos and <1% crystalline silica, respirable fraction	IDLH: 5000 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust
Silica	76331-86-9	(vacated) TWA: 6 mg/m <sup>3</sup> <1% Crystalline silica TWA: 20 mppcf: (80)/(% SiO <sub>2</sub> ) mg/m <sup>3</sup> TWA	N/A	N/A
Limestone	1317-65-3	TWA: 15 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup> (vacated) TWA: 15 mg/m <sup>3</sup> (vacated) TWA: 5 mg/m <sup>3</sup>	N/A	TWA: 5 mg/m <sup>3</sup> respirable dust TWA: 10 mg/m <sup>3</sup> total dust
Gypsum (Ca(SO <sub>4</sub> ).2H <sub>2</sub> O)	13397-24-5	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 15 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> inhalable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust
Aluminum Oxide	1344-28-1	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust(vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 1 mg/m <sup>3</sup> respirable fraction	N/A

**ENGINEERING CONTROLS:**

Showers, Eyewash stations, Ventilation systems

**PERSONAL PROTECTIVE EQUIPMENT (PPE):****RESPIRATORY PROTECTION:**

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn

**EYE PROTECTION:**

Wear safety glasses with side shields or goggles to avoid contact with your eyes.

**SKIN PROTECTION:**

Lightweight protective clothing. Protective gloves.

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

<b>VISCOSITY</b>	Not Applicable	<b>APPERANCE:</b>	Gray powder
<b>ODOR &amp; ODOR THRESHOLD:</b>	N/A	<b>FLASH POINT:</b>	Not Applicable, Not Flammable, Not Combustible
<b>BOILING POINT:</b>	> 1482.2 °C / >2700 °F	<b>MELTING POINT:</b>	>1482.2 °C / >2700 °F
<b>EVAPORATION RATE:</b>	Not Applicable	<b>FLAMMABILITY (SOLID/GAS)</b>	Not Applicable
<b>VAPOR PRESSURE:</b>	Not applicable	<b>pH (IN WATER): (ASTM D 1293-95)</b>	13
<b>VAPOR DENSITY:</b>	Not applicable	<b>SOLUBILITY IN WATER:</b>	Slightly (0.1%-1.0%)
<b>RELATIVE DENSITY</b>	Not Applicable	<b>UPPER/LOWER FLAMMABILITY</b>	Not Flammable, Not Explosive
<b>PARTITION COEFFICIENT:</b>	Not Applicable	<b>AUTO IGNITION TEMPERATURE</b>	Not Flammable

## SECTION 10 – STABILITY AND REACTIVITY

<b>CHEMICAL STABILITY:</b>	Product is stable under recommended storage conditions. Keep dry until used.
<b>CHEMICAL REACTIVITY:</b>	<b>Hazardous Polymerization:</b> Will not occur. <b>Corrosion to Metals:</b> Not Corrosive <b>Oxidizing Properties:</b> Not classified as oxidizing.
<b>CONDITIONS TO AVOID:</b>	Unintentional contact with water or high humidity. Contact with water will result in hydration and produce (caustic) calcium hydroxide and heat. Avoid generation of dust.
<b>INCOMPATIBILITY:</b>	Silica reacts violently with powerful oxidizing agents such as hydrofluoric acid, fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, oxygen difluoride, hydrogen peroxide, acetylene, ammonia yielding possible fire and/or explosions. Silicates dissolve readily in hydrofluoric acid producing a corrosive gas silicon tetrafluoride.
<b>HAZARDOUS DECOMPOSITION:</b>	Will not spontaneously occur. Adding water results in hydration and produces (caustic) calcium hydroxide. Under normal conditions of storage and use, hazardous decomposition products should not be produced. In fire conditions, depending on temperature, air supply and presence of other materials, decomposition products can include, but are not limited to carbon dioxide, carbon monoxide, silica oxides, sulfur oxides, metal oxides.

## SECTION 11 – TOXICOLOGY INFORMATION

<b>ACUTE TOXICITY</b>	<b>INGESTION:</b>	Harmful if swallowed.				
	<b>INHALATION:</b>	May cause respiratory tract irritation and coughing. Ingredients may contain trace amounts of crystalline silica. Exposure to these ingredients in excess of the applicable TLV or PEL (see Section 2) may cause or aggravate other lung conditions				
	<b>SKIN CORROSION SKIN IRRITATION</b>	Acute Skin Irritation.				
	<b>SERIOUS EYE DAMAGE &amp; IRRITATION</b>	Dust may cause abrasion of the cornea.				
	<b>SPECIFIC TARGET ORGAN GENERAL TOXICITY: SINGLE EXPOSURE:</b>	This product contains components that may cause respiratory tract irritation after single exposure.				
	<b>SPECIFIC TARGET ORGAN GENERAL TOXICITY: REPEAT EXPOSURE:</b>	Target Organ: Lungs.				
	<b>ASPIRATION HAZARD:</b>	Not an aspiration hazard.				
<b>CLASSIFICATIONS:</b>	<b>Carcinogen</b>	<b>Skin Corrosion</b>	<b>Eye Damage</b>	<b>Skin Sensitization</b>	<b>STOT RE</b>	<b>STOT SE</b>
Mixture	Cat 1A	Cat 1B	Cat 1	Cat 1B	Cat 1	Cat 3
<b>Reproductive Toxicity:</b>	Risk to humans is not expected from exposure to this product.					
<b>General Product Warning:</b>	May cause cancer. Prolonged and repeated exposure to airborne free respirable crystalline silica can result in lung disease and/or lung cancer. IARC states that crystalline silica in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1).					

## SECTIONS 12 – ECOLOGICAL INFORMATION

<b>ECOTOXICITY</b>	Not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>Silica 7631-86-9</b>	Toxicity to Algae: EC50 72 h: = 440 mg/L (Pseudokirchneriella subcapitata) Toxicity to Fish: LC50 96 h: = 5000 mg/L static (Brachydanio rerio) Daphnia Magna (Water Flea): EC50 48 h: = 7600 mg/L (Ceriodaphnia dubia)
<b>Aluminum Oxide 1344-28-1</b>	Toxicity to Fish: LC50 96 h: > 100 mg/L semistatic (Salmo trutta) Daphnia Magna (Water Flea): LC50 48 h: > 100 mg/L (daphnia magna)

## SECTIONS 12 – ECOLOGICAL INFORMATION cont.

<b>ECOTOXICITY</b>	Not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>PERSISTENCE AND DEGRADABILITY:</b>	No information available for the product, believed to be not readily biodegradable by OECD criteria.
<b>BIOACCUMULATIVE POTENTIAL:</b>	No information is available for the product, but it is believed that no significant accumulation in organisms is expected
<b>MOBILITY IN SOIL:</b>	No information is available for the product, but it is believed that mobility in soil is not expected
<b>OTHER ADVERSE EFFECTS:</b>	No information is available for the product

## SECTION 13 – DISPOSAL CONSIDERATIONS

<b>PRODUCT DISPOSAL:</b>	The generation of waste should be avoided or minimized wherever possible. If product becomes a waste, it does not meet criteria of hazardous waste as defined in 40 CFR 261, Subpart C and D. Do not discharge or dump material into sewer system, the ground or bodies of water. Spill cleanup residues may still be subject to RCRA storage and disposal requirements. Dispose of waste in compliance with local, state and federal regulations via licensed waste disposal contractor. See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations
<b>CONTAINER DISPOSAL:</b>	Even after emptying, the container may retain residues. Containers should be completely emptied and safely stored until appropriately reconditioned or dispose of (contents/container) in accordance with local/regional/national/international regulations.

## SECTION 14 – TRANSPORTATION CONSIDERATIONS

Land transport, U.S. DOT/ Sea transport, IMDG/ Air transport, IATA/ICAO:	Non-Regulated
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## SECTION 15 – REGULATORY INFORMATION (Non-Mandatory Section as per OSHA: Not a Complete List)

<b>U.S. REGULATIONS</b>	
<b>OSHA HCS:</b>	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29CFR 1910.1200.
<b>TSCA REGULATIONS:</b>	All components of this product are listed or are exempt from TSCA Inventory requirements under 40 CFR 720.30
<b>EPCRA Section 302 (40 CFR Part 355)</b>	(Emergency Response Planning, Extremely Hazardous Substance): No components are subject to the reporting.
<b>EPCRA Section 304 (40 CFR Part 355)</b>	(Emergency Release Notification Requirements): No components are subject to the reporting.
<b>EPCRA Sections 311 &amp; 312</b>	(Hazardous Chemical Inventory Reporting, Hazard Categories): Acute Health Hazard, Chronic Health Hazard
<b>EPCRA Section 313 (40 CFR Part 372)</b>	(Toxic Chemical Release Inventory Reporting): No components or impurities of this product are present above De Minimis level and therefore do not require reporting.
<b>CERCLA Sections 102-103 (40 CFR Part 302)</b>	(Hazardous Substances Release Notification): No components are subject to the reporting. Some of the components contain trace amounts of the following chemicals that require reporting if a criterion of reportable quantity is fulfilled: Fine Mineral Fibers of average diameter $\leq 1\mu\text{m}$ (including Crystalline Silica, CAS #: 14808-60-7 with diameter $\leq 1\mu\text{m}$ )
<b>CLEAN AIR ACT</b>	<ul style="list-style-type: none"> <li>- Ozone Depleting Substances (ODS): This product does not contain and is not manufactured with ozone depleting substances.</li> <li>- Hazardous Air Pollutants, OSHA, Section 112(b), Table Z-1 and Table Z-3:</li> </ul>
<b>COMPONENT ANALYSIS –STATE</b>	
<b>STATE</b>	<b>INFORMATION</b>
<b>CA</b>	The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): <b>WARNING!</b> This product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

**SECTION 15 – REGULATORY INFORMATION cont.  
(Non-Mandatory Section as per OSHA: Not a Complete List)**

**U.S. REGULATIONS**

Quartz (14808-60-7)	California Prop 65: Carcinogen
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**SECTION 16 – OTHER INFORMATION**

**HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)**

NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme  
E-Protective Equipment: Safety glasses, gloves, Dust Respirator

<b>Health</b>	<b>1</b>
<b>Flammability</b>	<b>0</b>
<b>Reactivity</b>	<b>0</b>
<b>Personal Protection</b>	<b>E</b>

**OTHER INFORMATION:**

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY CONSOLIDATED AGGREGATES, except that the product shall conform to contracted specifications. The information herein was believed by Consolidated Aggregates to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information to comply with all laws and procedures applicable to the safe handling and use of the product and to determine the suitability of the product for its intended use. Buyer's exclusive remedy shall be for damages and no claim of any kind, whether as to product delivered or for non-delivery of product, failure of product due to manufacturers defect, and whether based on contract, breach of warranty, negligence, or otherwise shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages or labor of any kind, whether Buyer's claim is based on contract, breach of warranty, negligence, manufacturers defect, product failure, or otherwise.

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