Section I. Identification

Product Identifier	Gray Portland Cement
Other Means of Identification	Cement, Hydraulic Cement, Ordinary Portland Cement, Silicate
Chemical Name	Calcium compounds, calcium silicate compounds, and other calcium compounds containing iron and aluminum make up most this product.
Relevant Uses	Building materials, construction application, a basic ingredient in concrete.
Supplier Name	SESCO Cement Corp.
Address	7300 Wingate St. Houston, TX 77011 Technical Services: (832) 846-2066
Emergency Telephone Number	CHEMTREC: 1-800-424-9300

Section II. Hazards Identification

OSHA/HCS Status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Category Classification(s)	Skin Corrosion/Irritation - Category 1 Eye Damage - Category 1 Skin Sensitization - Category 1 Carcinogenicity/Inhalation - Category 1 Single Target Organ Toxicity (Repeated Exposure) - Category 2

GHS Label Elements:

Hazard Pictograms

GHS07 GHS05 GHS08

Signal Word	Danger
Hazard Statements	Causes severe skin burns and eye damage May cause an allergic skin reaction May cause cancer (inhalation, dermal). Causes damage to lungs, kidneys and autoimmune system through prolonged or repeated exposure by inhalation

Precautionary Statements:

Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wash clothing, hands, forearms and face thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear eye protection, protective clothing, protective gloves
Response	If swallowed: rinse mouth. Do NOT induce vomiting If on skin: Wash with plenty of soap and water If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water If inhaled: Remove person to fresh air and keep comfortable for breathing If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If exposed or concerned: Get medical advice/attention Immediately call a doctor or POISON CENTER Get medical advice/attention if you feel unwell Specific treatment (see Section 4 this label) If skin irritation or rash occurs: Get medical advice/attention Take off contaminated clothing and wash it before reuse Wash contaminated clothing before reuse
Storage	Keep container tightly closed in a dry and well-ventilated area.
Disposal	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Other Hazards	None known.

Section III. Composition / Information on Ingredients

Substance/Mixture	Gray Portland Cement
Chemical Name	Calcium compounds, calcium silicate compounds, and other calcium compounds containing iron and aluminum make up most this product.

Ingredient Name	% Content	CAS #
Portland Cement	100 %	65997-15-1
Gypsum	5 - 7 %	7778-18-9
Limestone	0 - 5 %	1317-65-3
Magnesium Oxide	0.5 - 2 %	1309-48-4
Quartz	0.0 - 0.05 %	14808-60-7

Any concentration shown as a range is to protect confidentiality or is due to process variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

See **Section 8** for Occupational Exposure Limits.

Section IV. First Aid Measures

Description of Necessary First Aid Measures:

Eye Contact	Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician.
Inhalation	Calcium compounds, calcium silicate compounds, and other calcium compounds containing iron and aluminum make up most this product.
Skin Contact	Get medical attention immediately. Heavy exposure to Portland cement dust, wet concrete or associated water requires prompt attention. Quickly remove contaminated clothing, shoes, and leather goods such as watchbands and belts. Quickly and gently blot or brush away excess Portland cement. Immediately wash thoroughly with lukewarm, gently flowing water and non-abrasive pH neutral soap. Seek medical attention for rashes, burns, irritation, dermatitis and prolonged unprotected exposures to wet cement, cement mixtures or liquids from wet cement. Burns should be treated as caustic burns. Portland cement causes skin burns with little warning. Discomfort or pain cannot be relied upon to alert a person to a serious injury. You may not feel pain or the severity of the burn until hours after the exposure. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure.
Ingestion	Get medical attention immediately. Call a poison center or physician. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING unless directed to do so by medical personnel. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Have victim drink 60 to 240 mL (2 to 8 oz.) of water. Stop giving water if the exposed person feels sick as vomiting may be dangerous. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

Most Important Symptoms/Effects, Acute and Delayed Potential Acute Health Effects

Eye Contact	Causes serious eye damage.
Inhalation	May cause respiratory irritation.
Skin Contact	Causes severe burns. May cause an allergic skin reaction.
Ingestion	May cause burns to mouth, throat and stomach.

Over-Exposure Signs/Symptoms

Eye Contact	Adverse symptoms may include the following: pain, watering and redness.
Inhalation	Adverse symptoms may include the following: respiratory tract irritation and coughing.
Skin Contact	Adverse symptoms may include the following: pain or irritation, redness and blistering may occur, skin burns, ulceration and necrosis may occur.
Ingestion	Adverse symptoms may include the following: stomach pains.

Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary

Notes to Physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific Treatments	Not applicable.
Protection of First-Aiders	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Section V. Fire-Fighting Measures

Extinguishing Media

Suitable Extinguishing Media	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable Extinguishing Media	DO NOT use water jet or water-based fire extinguishers.
Hazardous Thermal Decompositionw Products	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, sulfur oxides and metal oxide/oxides products.
Specific Hazards Arising from The Chemical	Non-flammable. No specific fire or explosion hazard.
Special Protective Actions for Firefighters	• Evacuate area. • Move containers from fire area if this can be done without risk. • DO NOT allow material to come in contact with waterways, as product reacts with water and becomes hard within 1 to 6 hours. • Hardened material may clog sewers and waterways. • Fight fire with normal precautions from a reasonable distance.
Special Protective Equipment for Firefighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

See **Section 9** for fire properties of this chemical including flash point, auto-ignition temperature, and explosive limits

Section VI. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:

Personnel Precautions	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe dust. Provide adequate ventilatiovn. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (PPE).
Protective Equipment/Clothing	For personal protective clothing requirements, please see **Section 8**.
Environmental Precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if reportable thresholds have entered the environment, including waterways, soil or air. Materials can enter waterways through drainage systems.

Methods and Materials for Containment and Cleaning Up:

Dry Spills	Collect dry material using a scoop. Avoid actions that cause dust to become airborne. Avoid inhalation of dust and contact with skin. Wear appropriate personal protective equipment as described in **Section 8**.
Wet Spills	Scrape up wet material and place in an appropriate container. Allow the material to “dry” before disposal.
Disposal	Do not attempt to wash Portland cement down drains. Dispose of waste material according to local, state and federal regulations. See Section 1 for emergency contact information and **Section 13** for waste disposal.

Section VII. Handling and Storage

Precautions for Safe Handling:

Protective Measures	Put on appropriate PPE (see **Section 8**). 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. Do not get in eyes or on skin or clothing. Do not breathe dust. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material and keep the container tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on General Occupational Hygiene	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.
Conditions for Safe Storage, Including Any Incompatibilities	A key to using the product safely requires the user to recognize that Portland cement reacts chemically with water to produce calcium hydroxide which can cause severe chemical burns. Every attempt should be made to avoid skin and eye contact with Portland cement. Do not get Portland cement inside boots, shoes or gloves. Do not allow wet, saturated clothing to remain against the skin. Promptly remove clothing and shoes that are dusty or wet with cement mixtures. Launder/clean clothing and shoes before reuse. Do not enter a confined space that stores or contains Portland cement unless appropriate procedures and protection are available. Portland cement can build up or adhere to the walls of a confined space and then release or fall suddenly (engulfment). Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.

Section VIII. Exposure Controls/Personal Protection

Occupational Exposure Limits

Ingredient Name	Agency/Standard	Exposure Limit
Portland Cement	OSHA PEL (USA, 6/2010)	5 mg/m^3 8 hour TWA (respirable fraction) 15 mg/m^3 8 hour TWA (total)
	ACGIH TLV (United States, 3/2012)	1 mg/m^3 8 hour TWA (respirable fraction)
	NIOSH REL (United States, 6/2009)	5 mg/m^3 10 hour TWA (respirable fraction) 10 mg/m^3 10 hour TWA (total)
Gypsum (Calcium Sulfate) ($Ca(SO_4).2H_2O$)	OSHA PEL Z-1 (United States, 2/2006)	5 mg/m^3 8 hour TWA (respirable fraction) 15 mg/m^3 8 hour TWA (total dust)
	ACGIH TLV (United States, 3/2012)	10 mg/m^3 8 hour TWA (respirable fraction)
	NIOSH REL (United States, 6/2009)	5 mg/m^3 10 hour TWA (respirable fraction) 10 mg/m^3 10 hour TWA (total)
Magnesium Oxide (MgO)	OSHA PEL (USA, 6/2010)	15 mg/m^3 8 hour TWA (total dust)
	ACGIH TLV (United States, 3/2012)	10 mg/m^3 8 hour TWA (respirable fraction)
Quartz (Crystalline Silica) (SiO_2)	OSHA PEL (United States, 9/2017)	0.05 mg/m^3 8 hour TWA (total dust)
	ACGIH TLV (United States, 3/2012)	0.025 mg/m^3 8 hour TWA (respirable fraction)
	NIOSH REL (United States, 6/2009)	0.05 mg/m^3 10 hour TWA (total dust)

Precautions for Safe Handling:

Appropriate Engineering Controls	Use only with adequate ventilation. If user operations generate dust, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental Exposure Controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Personal Protective Equipment (PPE)

Respiratory Protection	Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and assigned protection factor of the selected respirator.
Eye/Face Protection	To prevent eye contact, wear safety glasses with side shields, safety goggles or face shields when handling dust or wet cement. Wearing contact lenses when working with cement is not recommended.
Hand Protection	Use impervious, waterproof, abrasion and alkali-resistant gloves. Do not rely on barrier creams in place of impervious gloves. Do not get Portland cement inside gloves.
Additional Skin Protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved. Footwear and other gear to protect the skin should be approved by a specialist before handling this product.
Body Protection	Use impervious, waterproof, abrasion and alkali-resistant boots and protective long-sleeved and longlegged clothing to protect the skin from contact with wet Portland cement. To reduce foot and ankle exposure, wear impervious boots that are high enough to prevent Portland cement from getting inside them. Do not get Portland cement inside boots, shoes, or gloves. Remove clothing and protective equipment that becomes saturated with cement and immediately wash exposed areas of the body.
Hygiene Measures	Clean water should always be readily available for skin and (emergency) eye washing. Periodically wash areas contacted by Portland cement with a pH neutral soap and clean, uncontaminated water. If clothing becomes saturated with Portland cement, garments should be removed and replaced with clean, dry clothing.

Section IX. Physical and Chemical Properties

Physical Properties

Appearance	Gray
Physical State	Solid (powder)
Odor	Odorless
Odor Threshold	N/A
Melting Point	> 1250° C (2282° F)
Viscosity	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Specific Gravity (H_2O = 1.0)	2.75 - 3.2

Chemical Properties

pH Level (in Water)	11 - 13.5
Solubility in Water	0.1 - 1.5 %
Boiling Point	> 1000° C (1832° F)
Auto-Ignition Temperature	N/A
Decomposition Temp.	Not available
Flash Point	Not combustible
Burning Time	N/A
Flammability	Not flammable
Evaporation Rate	N/A

Section X. Stability and Reactivity

Protective Measures	Reacts slowly with water forming hydrated compounds, releasing heat and producing a strong alkaline solution until reaction is substantially complete.
Chemical Stability	The product is stable.
Hazardous Reactions	Under normal conditions of storage and use, hazardous reactions should not occur.
Conditions to Avoid	Contact with incompatible materials, unintentional contact with moisture.

Incompatible Materials	Reactive or incompatible with the following materials: oxidizing materials, acids, aluminum and ammonium salt. Portland cement is alkaline and will react with acids to produce a violent, heat-generating reaction. Toxic gases or vapors may be given off depending on the acid involved. Reacts with acids, aluminum metals and ammonium salts. Aluminum powder and other alkali and alkaline earth elements will react in wet mortar or concrete, releasing hydrogen gas. Limestone ignites on contact with fluorine and is incompatible with acids, aluminum, ammonium salts, and magnesium. Silica reacts violently with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride yielding possible fire and/or explosions. Silicates dissolve readily in hydrofluoric acid producing a corrosive and toxic silicon tetrafluoride gas.
Hazardous Decomposition Products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section XI. Toxicological Information

Health Effects Based on Route of Exposure

Ingredient Name	Route of Exposure	Known Chronic/Acute Effects
Portland Cement	Eye Contact	**Acute**: moderate eye irritation to chemical burns and blindness when directly contacted with larger amounts
	Skin Contact / Absorption	**Chronic**: Chemical burns. **Acute**: drying of skin, mild irritation (dry) thickening, cracking or fissuring of the skin (wet) **Allergies**: Dermatitis induced by alkaline resulting in symptoms ranging from mild rashes to severe skin ulcers.
	Ingestion	**Acute**: Small amounts (a tablespoonful) swallowed during normal handling operations are not likely to cause injury. Ingestion of large amounts may cause gastrointestinal irritation and blockage, and alkali burns of mouth, throat and stomach
	Inhalation	**Chronic/Acute**: Dust may irritate nose, throat, mucous membranes and respiratory tract
Quartz (Crystalline Silica) (SiO_2)	Inhalation	**Silicosis** (lung disease). Chronic exposure to crystalline silica dust above the occupational exposure limits (See Section 8) increases the risk of developing Silicosis. This disease is characterized by lung lesions (small benign mass in lungs). Symptoms include shortness of breath, coughing, wheezing and diminished chest expansion/lung volume. **Lung Cancer**. In accordance with OSHA's revision to standard 1926.1153 and as evidenced by studies and reports conducted by IARC and NTP, regular, repeated exposure to respirable crystalline silica is heavily linked to cases of lung cancer.

Section XII. Ecological Information

No data available for this product.

Section XIII. Disposal Information

Disposal Recommendations	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any byproducts should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Untreated waste should not be released to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe manner. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff, and contact with soil, waterways, drains and sewers.

Section XIV. Transportation Data

DOT Hazard Classification	Portland cement is not hazardous under U.S. Department of Transportation (DOT) regulations.
Placard Required	N/A
Label Required	Label as required by the OSHA Hazard Communication standard {29 CFR 1910.1200(f)}, and applicable state and local regulations.
Special Precautions for User	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage

Section XV. Regulatory Information

OSHA	Crystalline Silica is not listed as a carcinogen. Product may contain trace amounts of hexavalent chromium [Cr(VI)] and certain chromium compounds which are listed in the NTP and IARC lists of carcinogens.
SARA Title III: Section 311, 312	Immediate health hazard and delayed health hazard.
TSCA	Crystalline silica (quartz), Limestone (CaCO3) and Portland Cement appear on the EPA TSCA inventory under the CAS No. 14808-60-7, 1317-65-3 (471-34-1) and 65997-15-1, respectively.
RCRA	The product is not classified as a hazardous waste under the Resource Conservation and Recovery Act, or its regulations, 40 CFR §261 et seq.
CERCLA	The product is not classified as a hazardous substance under regulations of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 40 CFR §302.4.
EPCRA (Emergency Planning and Community Right to Know Act)	Crystalline silica (quartz) is not an extremely hazardous substance under regulations of the Emergency Planning and Community Right to Know Act, 40 CFR Part 355, Appendices A and B and the product is not a toxic chemical subject to the requirements of Section 313.
Clean Air Act	Crystalline silica (quartz) mined and processed by Sesco Cement was not processed with or does not contain any Class I or Class II ozone depleting substances.
FDA	Silica is included in the list of substances that may be included in coatings used in food contact surfaces, 21 CFR §175.300(b)(3).(The FDA standard primarily applies to products containing silica used in the coatings of food contact surfaces).
California Proposition 65	Respirable crystalline silica is classified as a substance known to the state of California to be a carcinogen. Cr(VI) is classified as substances known to the state of California to cause cancer and cause reproductive toxicity.
Massachusetts Toxic Use Reduction Act	Respirable crystalline silica is considered toxic per the Massachusetts Toxic Use Reduction Act when used in abrasive blasting and molding.
Pennsylvania Worker and Community Right to Know Act	Quartz is considered hazardous for purposes of the Act, but it is not a special hazardous substance or an environmental hazardous substance.

Section XVI. Other Information

Definitions of Acronyms/Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	US Code of Federal Regulations
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right to Know Act
DOT	Department of Transportation
FDA	Food and Drug Administration
GHS	Globally Harmonized System
IARC	International Agency for Research on Cancer
NIOSH	National Institute for Occupational Safety and Health
NIOSH REL	NIOSH Recommended Exposure Limit
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration, US Department of Health and Human Services
OSHA PEL	OSHA Permissible Exposure Limit
RCRA	Resource Conservation and Recovery Act
SARA	Title III of the Superfund Amendments and Reauthorization Act, 1986
SDS	Safety Data Sheet
TLV	Threshold Limit Value
TSCA	Toxic Substance Control Act
TWA	Time-Weighted Average

NFPA Health Hazard	3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.
NFPA Fire Hazard	0 - Materials that will not burn.
NFPA Reactivity	0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

User's Responsibility

The OSHA Hazard Communication Standard 29 CFR 1910.1200 requires that this SDS be made available to your employees who handle or may be exposed to this product. Educate and train your employees regarding applicable precautions. Instruct your employees to handle this product properly.

Disclaimer

The information contained in this document applies to this specific material as supplied and SESCO Cement believes that the information contained in this SDS is accurate. The suggested precautions and recommendations are based on recognized good work practices and experience as of the date of publication. They are not necessarily all-inclusive or fully adequate in every circumstance as not all use circumstances can be anticipated. It may not be valid for this material if it is used in combination with other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for one's own particular use. Since the actual use of the product described herein is beyond our control, SESCO Cement, assumes no liability arising out of the use of the product by others. Appropriate warnings and safe handling procedures should be provided to handlers and users. Also, the suggestions should not be confused with nor followed in violation of applicable laws, regulation, rules or insurance requirement. However, product must not be used in a manner which could result in harm.

More Information

An electronic version of this SDS is available at www.sescocement.us. More information on the effects of crystalline silica exposure may be obtained from OSHA (phone number: 1-800-321-OSHA; website: http://www.osha.gov) or from NIOSH (phone number: 1-800-35-NIOSH; website: http://www.cdc.gov/niosh).

Date of Revision

09/2024