Safety Data Sheet-Portland Cement

1 – PRODUCT IDENTIFICATION

Product Name: FEDERAL WHITE CEMENT
Product Number: 1596001
Product Use: building materials, construction, basic ingredient in concrete.

DATE PREPARED: 11-29-2016
COMPANY: Buddy Rhodes Concrete Products
5600 Lower Macungie Road, Macungie, PA 18062
1-877-706-5303 **International call:** 610-252-5800 (collect calls accepted)
EMERGENCY PHONE: Domestic: 1-800-255-3924 International: 813-248-0585 (Chem-Tel)

2 – HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Acute toxicity, oral – Category 4 (H302)
Acute toxicity, dermal – Category 4 (H312)
Skin corrosion/irritation – Category 1B (H314)
Serious eye damage/eye irritation – Category 1 (H318)
Acute toxicity, inhalation – Category 3 (H331)
Respiratory sensitization – Category 1 (H334)
Carcinogenicity – Category 1 (H350)
Specific target organ toxicity, repeated exposure – Category 1 (respiratory, H372)

GHS Label elements, including precautionary statements

Hazard Pictogram(s):
Signal word: Danger

Health Hazards:

H302 + H312	Harmful if swallowed or in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H331	Toxic if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H350	May cause cancer.
H372	Causes damage to organs through prolonged or repeated exposure.

Prevention Precautions:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.

P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	In case of inadequate ventilation wear respiratory protection.

Response Precautions:

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 or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep 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/physician.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.

Storage Precautions:

P401	Store in an appropriate container or containment structure.
P403	Store in a well-ventilated place.

Disposal Precautions:

P501	Dispose of contents/container in accordance with local, state or federal regulations.

Hazards not otherwise classified (HNOC) or not covered by GHS – none known

3 – COMPOSITION / INFORMATION ON INGREDIENTS

Chemical names	CAS No	Concentration
Portland Cement	65997-15-1	100
The structure of Portland cement may contain the following in some concentration ranges: Calcium oxide 0-4% 1305-78-8 Quartz 0-.5% 14808-60-7 Hexavalent chromium* 0-26 PPM 18450-29-9 Portland cement also		

contains gypsum, limestone and magnesium oxide in various concentrations. However, because these components are not classifiable as a hazard under Title 29 Code of Federal Regulations 1910.1200, they are not required to be listed in this section. Gypsum 2-6% 13397-24-5 Limestone 0-5% 1317-65-3		

Substance/Mixture: mixture
Synonym: Calcium compoinds, calcium silicate compounds, and other calcium compounds containing iron and aluminum make up the majority of this product.

Cement, hydraulic cement, portland cement, silicate.

4 – FIRST-AID MEASURES

Description of first aid measures
In case of inhalation: Seek medical help if coughing or other symptoms persist. Inhalation of large amounts of portland cement requires immediate medical attention. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If the individual is not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.
In case of 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
In case of eye: 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.
In case of 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 both acute and delayed:

Indication of any immediate medical attention and special treatment needed: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5 – FIRE-FIGHTING MEASURES

Extinguishing Media: Suitable extinguishing media: Foam, water spray, dry chemical powder, carbon dioxide, or sand

Unsuitable extinguishing media: Do not use a heavy water stream

Flash point: Not applicable

Auto ignition temperature: Not applicable

Specific protective equipment and procedures for firefighters: Hazardous thermal Decomposition products may include the following materials: carbon dioxide, carbon monoxide, sulfur decomposition products: oxides and metal oxide/oxides Wear self contained breathing apparatus and protective clothing

Specific chemical hazards: None

6 – ACCIDENTAL RELEASE MEASURES

Environmental 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 ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Methods for cleanup: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has entered the environment, including waterways, soil or air.

Materials can enter waterways through drainage systems

7 – HANDLING and STORAGE

Storage: 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 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).

Handling: Put on appropriate personal protective equipment (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.

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits
Cement, portland, chemicals ACGIH TLV (United States, 3/2012).
TWA: 1 mg/m3
8 hours. Form: Respirable fraction
NIOSH REL (United States, 6/2009).
TWA: 5 mg/m3
10 hours. Form: Respirable fraction
TWA: 10 mg/m3
10 hours. Form: Total
OSHA PEL (United States, 6/2010).
TWA: 5 mg/m3
8 hours. Form: Respirable fraction
TWA: 15 mg/m3
8 hours. Form: Total dust

Calcium oxide ACGIH TLV (United States, 3/2012).
TWA: 2 mg/m3
8 hours.
NIOSH REL (United States, 6/2009).
TWA: 2 mg/m3
10 hours.
OSHA PEL (United States, 6/2010).
TWA: 5 mg/m3
8 hours.

Limestone NIOSH REL (United States, 6/2009).
TWA: 5 mg/m3
10 hours. Form: Respirable fraction
TWA: 10 mg/m3
10 hours. Form: Total
OSHA PEL (United States, 6/2010).
TWA: 5 mg/m3
8 hours. Form: Respirable fraction
TWA: 15 mg/m3
8 hours. Form: Total dust

Magnesium oxide ACGIH TLV (United States, 3/2012).
TWA: 10 mg/m3
8 hours. Form: Inhalable fraction
OSHA PEL (United States, 6/2010).
TWA: 15 mg/m3
8 hours. Form: Total particulates

Quartz ACGIH TLV (United States, 3/2012).
TWA: 0.025 mg/m3
8 hours. Form: Respirable fraction
NIOSH REL (United States, 6/2009).
TWA: 0.05 mg/m3
10 hours. Form: respirable dust
OSHA PEL Z-3 (United States, 9/2005).
TWA: 10mg/m3
divided by %SiO2 + 2: Respirable
TWA: 30mg/m3
divided by %SiO2 + 2: Total

Calcium sulfate (gypsum) ACGIH TLV (United States, 3/2012)
TWA: 10 mg/m3
8 hours. Form: Respirable fraction
NIOSH REL (United States, 6/2009)
TWA 5 mg/m3
8 hours. Form: Respirable fraction
TWA 10 mg/m3
8 hours. Form: Total dust
OSHA PEL Z-1 (United States, 2/2006)
TWA 5 mg/m3
8 hours. Form: Respirable fraction
TWA 15 mg/m3
8 hours. Form: Total dust

Appropriate engineering controls: If needed use local exhaust ventilation to keep dust concentration bellow limits cited in this Section.
Personal Protective Equipment
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/Skin 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.
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.
Other 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.
General Hygiene Considerations: 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

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

9 – PHYSICAL / CHEMICAL PROPERITES

Appearance: Dry Powder
Physical State: solid
Color: white
Odor: Odorless
pH: >11.5
Melting Point: NA
Boiling Point: >1000°C
Flash point: Not applicable
Flammibility (solid,gas): Not flammable
Explosive Properties: Not explosive
Vapor Pressure: Not applicable
Vapor Density (AIR=1): Not applicable
Density: 2.3-3.1
Solubility in water: Slightly soluble in water. 0.1-1%
Partition Coefficient (n-octanol/water): NOT APPLICABLE
Auto-ignition temperature: Not applicable
Viscosity: Not applicable

10 – STABILITY and REACTIVITY

Reactivity: reacts slowly with water forming hydrated compounds, releasing heat and producing a strong alkaline solution until reaction is substantially complete
Chemical Stability: Stable under normal conditions
Hazardous Reactions: Stable under normal conditions
Conditions to avoid: NA
Incompatible materials: Reactive or incompatible with the following materials: oxidizing materials, acids, aluminum and ammonium salt. Portland cement is highly 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, liberating hydrogen gas. Limestone ignites on contact with fluorine and is incompatible with acids, alum, 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 gas — silicon tetrafluoride.
Hazardous Decomposition.: na

11 – TOXICOLOGICAL INFORMATION

Acute Toxicity: Calcium Oxide-Yes
Chromium Ion (<0.2%)-yes
Nickel Compounds (<0.1%)-yes
Acute Oral Toxicity: NA

Acute Inhalation Toxicity: Based on available data the classification criteria are not met
Chronic Toxicity: Potential chronic health effects: General: Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. If sensitized
to hexavalent chromium, a severe allergic dermal reaction may occur when subsequently exposed to very low levels.
Carcinogenicity: Portland cement is not classifiable as a human carcinogen. Crystalline silica is considered a hazard by inhalation. IARC has classified crystalline silica as a Group 1 substance, carcinogenic to humans. This classification is based on the findings of laboratory animal studies (inhalation and implantation) and epidemiology studies that were considered sufficient for carcinogenicity. Excessive exposure to crystalline silica can cause silicosis, a non-cancerous lung disease.
Irritation: Skin: May cause skin irritation. May cause serious burns in the presence of moisture.
Eyes: Causes serious eye damage. May cause burns in the presence of moisture.
Respiratory: May cause respiratory tract irritation.
Sensitization: May cause sensitization due to the potential presence of trace amounts of hexavalent chromium.
Mutagenicity: Non-mutagenic
Carcinogenicity: Product/ingredient name OSHA IARC ACGIH NTP
Cement, portland, chemicals — — A4 —
Quartz — 1 A2 Known to be a human carcinogen.
Reproductive toxicity: No known significant effects or critical hazards on reproduction.
Aspiration hazard: Not applicable

12 – ECOLOGICAL INFORMATION

Ecotoxicity: Product/ingredient name Result Species Exposure
Calcium oxide Chronic NOEC 100 mg/L Fish—Oreochromis niloticus—Juvenile 46 days
Fresh water (Fledgling, Hatchling, Weanling)
Persistence and degradability: Not applicable
Bioaccumulative potential: Not applicable
Mobility in soil: Not applicable
Results of PBT and vPvB assessment: The substance does not meet the criteria to be identified as PBT or vPvB

13 –DISPOSAL CONSIDERATIONS

Disposal considerations: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products 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.

14 – TRANSPORTATION INFORMATION

DOT: Not regulated, not dangerous good.
Transport by sea (IMO / IMDG): Not regulated. Not dangerous good

Air transport (ICAO/ IATA): Not regulated. Not dangerous good

15 - REGULATIONS

Contents of this SDS comply with the OSHA Hazard Communication Standard 29CFR 1910.1200

EPA SRA Title III Chemical Listings:
US Federal Regulations
TSCA Status: TSCA 6 final risk management: Chromium, ion (Cr6+)
United States inventory (TSCA 8b): Portland cements are considered to be statutory mixtures under TSCA.
CAS 65997-15-1 is included on the TSCA inventory
SECTION 302: None
SECTION 312
Acute: Calcium Oxide-Yes
Chromium Ion (<0.2%)-yes
Nickel Compounds (<0.1%)-yes
Chronic: Quartz (<0.2%)-yes yes
Chromium Ion (Cr6+) (<0.1%)-yes
Nickel Compound (<0.1%)-yes
Lead (<0.1%)-yes

Fire: None
Pressure: none
Reactive: None

SARA 313: Form R—Reporting requirements
Chromium, ion (Cr6+) 8540-29-9 < 0.1
Lead (Organic or Inorganic) — < 0.1
Nickel Compounds — < 0.1
Clean Water Act: Chromium, ion (Cr6+)
FDA: NA

US State Regulations
State regulations
Massachusetts: The following components are listed: cement, portland, chemicals, limestone
New York: None of the components are listed.
New Jersey: The following components are listed: cement, portland, chemicals, gypsum, limestone
Pennsylvania: The following components are listed: cement, portland, chemicals, gypsum, limestone
California Prop. 65
WARNING: This product contains crystalline silica and chemicals (trace metals) known to the State of California to cause cancer, birth defects or
other reproductive harm. California law requires the above warning in the absence of definitive testing to prove the defined risks do not exist.

Quartz
Cancer:Yes.
Reproductive:No
No significan risk level:No

maximum acceptable dosage daily:No

Chromium, ion (Cr6+)
Cancer:Yes.
Reproductive:yes
No significan risk level:0.001 µg/day (inhalation)
maximum acceptable dosage daily:8.2 micrograms/day (ingestion)

Nickel Compounds
Cancer: no
Reproductive:no
No significan risk level:no
maximum acceptable dosage daily: no

Lead
Cancer: yes
Reproductive:yes
No significan risk level: 15 µg/day (ingestion)
maximum acceptable dosage daily: 0.5 micrograms/day (inhalation)

International regulations
International lists: Canadian Domestic Substances List (DSL): Portland cement is included on the DSL.
Mexico Inventory (INSQ): All components are listed or exempted

16 – OTHER INFORMATION

Additional Information: This Safety Data Sheet complies with OSHA Hazard Communication Standard 29 CFR 1910.1200 (HCS-2012) and its adaptation of
United Nations 'Globally Harmonized System of Classification and Labeling of Chemicals (GHS).
This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.
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