



SAFETY DATA SHEET

SDS No. 1210

Revision Date: 8/17/2018 Version: 1.0

GHS Compliant

Section 1 - Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier

Trade Name: **UltraSealZ™ ZFRC**

1.2 Relevant identified uses of the substance or mixture and uses advised against

General Use: Concrete Additive, Shrinkage Reducer
Restrictions on Use: None known

1.3 Details of the supplier of the safety data sheet:

Company: Buddy Rhodes Concrete Products
5600 Lower Macungie Rd., Macungie, PA 18062

Telephone: Domestic: 1 (877) 706-5303
International: (610) 252-5800 (collect calls accepted)

E-mail address: Visit our website at www.buddyrhodes.com

1.4 Emergency Contact: Chem-Tel Domestic: 800-255-3924 International: 813-248-0585

Section 2 – Hazard(s) Identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)

H315 Skin Corrosion/Irritation Category 2
H318 Serious Eye Damage / Eye Irritation Category 1
H335 Specific Target Organ Toxicity (single exposure) Category 3
H350 Carcinogenicity Category 1A

2.2 GHS Label elements, including precautionary statements



Pictogram(s):

Signal word: Danger

Health Hazards

H315 Causes skin irritation
H318 Causes serious eye damage.
H335 May cause respiratory irritation
H350 May cause cancer

General Precautions

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.

Prevention Precautions

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash with soap and water thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response Precautions

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
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.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Storage Precautions

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

Disposal Precautions

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

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

This product contains a chemical known to be hazardous according to California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). (See also Section 3 and 15).

Section 3 - Composition / Information on Ingredients

3.1 Substances/Mixtures

The following ingredients are hazardous according to Regulation 2012 OSHA Hazard Communication Standard: 29 CFR 1910.1200:

Chemical name	CAS-No.	Concentration
Slags, ferrous metal, blast furnace	65996-69-2	<20
Calcium Oxide	1305-78-8	30 – 50
Quartz	14808-60-7	<1
Magnesium Oxide	1309-48-4	10 – 20

Section 4 - First Aid Measures

4.1 Description of first aid measures**Inhalation**

Remove source(s) of contamination and move victim to fresh air. If breathing has stopped, give artificial respiration, then oxygen if needed. Contact physician immediately.

Eye Contact

Flush eyes with plenty of water. If irritation persists, seek medical attention.

Skin Contact

In case of skin contact, wash thoroughly with soap and water.

Ingestion

Do not induce vomiting unless instructed by a physician. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

General

Irritation to eyes, skin and respiratory tract. Causes serious eye damage.

Inhalation

Breathing dust may cause nose, throat, or lung irritation, including choking, depending on the degree of exposure. Prolonged or repeated inhalation of respirable crystalline silica from this product can cause silicosis, a seriously disabling and fatal lung disease. Some studies show that exposure to respirable crystalline silica may be associated with increased incidences of autoimmune disorders such as scleroderma, systemic lupus erythematosus, rheumatoid arthritis, and diseases affecting the kidneys. The extent and severity of lung injury depends on duration and level of exposure. Corrosive to the respiratory tract.

Skin Contact

Slag may cause dry skin, discomfort, irritation, and dermatitis. Slag can cause dermatitis by irritation and allergy. Skin affected by dermatitis may include symptoms such as, redness, itching, rash, scaling, and cracking. Irritant dermatitis is caused by the physical properties of slag including moisture and abrasion. Allergic contact dermatitis is caused by sensitization to hexavalent chromium (chromate) present in slag. The reaction can range from a mild rash to severe skin ulcers. Persons already sensitized may react to the first contact with slag. Others may develop allergic dermatitis after years of repeated contact with slag.

Eye Contact

Airborne dust may cause immediate or delayed irritation or inflammation. Eye contact with copious amounts of dry powder or with wet slag can cause moderate eye irritation. Eye exposures require immediate first aid to prevent considerable damage to the eye.

Ingestion

Do not ingest slag. Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: If dust is generated, repeated exposure through inhalation may cause cancer or lung disease.

4.3 Indication of any immediate medical attention and specific treatment needed.

None known.

Section 5 - Fire-Fighting Measures

5.1 Extinguishing Media

Water Fog, Dry Chemical, and Carbon Dioxide Foam

5.2 Special hazards arising from the substance or mixture

None known.

5.3 Advice for firefighters

Use water spray to cool fire-exposed surfaces and to protect personnel. Shut off "fuel" to fire. If a leak or spill has not ignited, use water spray to disperse the vapors. Either allow fire to burn under controlled conditions or extinguish with foam or dry chemical. Try to cover liquid spills with foam. Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full-face piece operated in pressure demand or positive-pressure mode.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Only properly protected personnel should remain in the spill area; dike and contain spill. Stop or reduce discharge if it can be done safely.

6.2 Environmental precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains or unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers. No special environmental precautions required.

6.3 Methods and material for containment and cleaning up

Put on appropriate protective gear including NIOSH/MSHA approved self-contained breathing apparatus, rubber boots and heavy rubber gloves. Dike and contain spill; absorb or scrape up excess into suitable container for disposal; wash area with dilute ammonia solution. Stop or reduce discharge if it can be done safely. Follow applicable OSHA regulations (29 CFR 1910.120) for disposal.

6.4 Reference to other sections

See Section 3 for list of Hazardous Ingredients; Sections 8 for Exposure Controls; and Section 13 for Disposal.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Use good general housekeeping procedures. Wash hands after use. Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Use good personal hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Keep container(s) tightly closed and properly labeled. Store in cool, dry, well ventilated place away from heat, direct sunlight, strong oxidizers and any incompatibles. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet local standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty containers retain residue and may be dangerous. Avoid water contamination.

7.3 Specific end use(s)

These precautions are for room temperature handling. Other uses including elevated temperatures or aerosol/spray applications may require added precautions.

Section 8 - Exposure Controls / Personal Protection

8.1 Control parameters

Quartz (14808-60-7)		
USA ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³ (respirable fraction)
USA OSHA	OSHA PEL (STEL) (mg/m ³)	250 mppcf/%SiO ₂ +5, 10mg/m ³ /%SiO ₂ +2
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	0.05 mg/m ³ (respirable dust)
USA IDLH	US IDLH (mg/m ³)	50 mg/m ³ (respirable dust)
Calcium oxide (1305-78-8)		
USA ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	2 mg/m ³
USA IDLH	US IDLH (mg/m ³)	25 mg/m ³
Magnesium oxide (MgO) (1309-48-4)		

USA ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³ (inhalable fraction)
USA OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ (fume, total particulate)
USA IDLH	US IDLH (mg/m ³)	750 mg/m ³ (fume)

8.2 Exposure controls

Respiratory Protection

Respiratory protection is not normally required when using this product with adequate local exhaust ventilation. Where risk assessment shows air-purifying respirators are appropriate, follow OSHA respirator regulations 29 CFR 1910.134 and European Standards EN 141, 143 and 371; wear an MSHA/NIOSH or European Standards EN 141, 143 and 371 approved respirators equipped with appropriate filter cartridges as a backup to engineering controls.

Hand Protection

Wear any liquid-tight gloves such as butyl rubber, neoprene or PVC.

Eye Protection

Safety glasses with side shields per OSHA eye- and face-protection regulations 29 CFR 1910.133 and European Standard EN166. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Other Protective Clothing/Equipment

Additional protective clothing or equipment is not normally required. Provide eye bath and safety shower.

Comments

Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics. Wash thoroughly after handling.

Section 9 - Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:	Powder	Vapor pressure:	No data
Odor:	Slight	Vapor density (Air=1):	No data
pH:	No data	Evaporation rate:	No data
Flash Point:	No data	Solubility in water:	Slight
Melting / freezing point:	>800°C	Specific Gravity (H₂O=1, at 4 °C):	No data
Low / high boiling point:	No data	Relative density:	2.6 g/cm ³
Upper flammability limits:	No data	Decomposition temperature:	No data
Lower flammability limits:	No data	Viscosity:	No data

Section 10 - Stability and Reactivity

10.1 Reactivity

No hazardous reactions if stored and handled as prescribed/indicated., No corrosive effect on metal. Not fire propagating.

10.2 Chemical stability

These products are stable at room temperature in closed containers under normal storage and handling conditions.

10.3 Possibility of hazardous reactions
Hazardous polymerization cannot occur

10.4 Conditions to avoid
None known

10.5 Incompatible materials
Strong bases and acids

10.6 Hazardous decomposition products
Thermal oxidative decomposition can produce carbon oxides, gasses/vapors, and traces of incompletely burned carbon compounds.

Section 11- Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity

Quartz (14808-60-7)		
	LD50 Oral Rat	> 5000 mg/kg
	LD50 Dermal Rat	> 5000 mg/kg
Calcium oxide (1305-78-8)		
	LD50 Oral Rat	> 2000 mg/kg
	LD50 Dermal Rabbit	> 2500 mg/kg
Quartz (14808-60-7)		
IARC Group		1
National Toxicology Program (NTP) Status		Known Human Carcinogens

Skin Corrosion/Irritation
Causes skin irritation.

Serious Eye Damage/Irritation
Causes serious eye damage.

Respiratory/Skin Sensitization
No data.

Germ Cell Mutagenicity
No data available

Carcinogenicity
May cause cancer.

Reproductive Toxicity
No data

Specific Target Organ Toxicity – Single Exposure
May cause respiratory tract irritation.

Specific Target Organ Toxicity – Repeated Exposure
Respiratory tract and kidneys.

Aspiration Hazard

No data

Chronic Exposure: If dust is generated, repeated exposure through inhalation may cause cancer or lung disease.

Potential Health Effects – Miscellaneous

No data

Section 12 - Ecological Information
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12.1 Toxicity

Name	Result	Species	Exposure
Calcium oxide	Chronic NOEC 100 mg/L Fresh water	Fish—Oreochromis niloticus—Juvenile (Fledgling, Hatchling, Weanling)	46 days

12.2 Persistence and Degradability

No data available

12.3 Bioaccumulative Potential

No data available

12.4 Mobility in Soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other Adverse Effects

No data available

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Under Resource Conservation and Recovery Act (RCRA) it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste as defined in 40 CFR Part 261. Waste management should be in full compliance with federal, state and local laws. Empty containers retain product residue which may exhibit hazards of material, therefore to not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

Section 14 - Transport Information

Not regulated by DOT, IATA or IMDG

Section 15 - Regulatory Information
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15.1 Safety health and environmental regulations/legislation specific for the substance or mixture

REACH: Regulation (EC) No 1907/2006 of The European Parliament and of The Council of December 2006 (including amendments and corrigenda as of 17 February 2016)

This product complies with REACH or is not subject to regulation under REACH. The product does not contain an ingredient listed on either the Candidate List or Authorization List for Substances of Very High Concern (SVHC).

In the United States (EPA Regulations)

TSCA Inventory Status (40 CFR710)

All components of this formulation are listed in the TSCA Inventory. No component of this formulation has been determined to be subject to manufacturing or use restrictions under the Significant New Use Rules (SNURs).

CERCLA Hazardous Substance List (40 CFR 302.4)

None known.

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and community Right-to-Know Act of 1986) Sections 311 and 312

Immediate (Acute), Delayed (Chronic)

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

State Right-to-Know

<u>Component</u>	<u>CAS#</u>	<u>State</u>
Quartz	14808-60-7	MA, NJ, PA
Calcium oxide	1305-78-8	MA, NJ, PA
Magnesium oxide	1309-48-4	MA, NJ, PA

KEEP OUT OF REACH OF CHILDREN



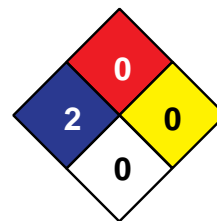
WARNING: Known to the State of CA to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

15.2 Chemical safety assessment

No chemical safety assessment has been carried out for this substance/mixture by the supplier.

16 - Other Information

HMIS	
H	2
F	0
R	0



NFPA

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Abbreviations and acronyms

ACGIH-American Conference of Governmental Industrial Hygienists; ANSI-American National Standards Institute; Canadian TDG-Canadian Transportation of Dangerous Goods; CAS-Chemical Abstract Service; Chemtrec-Chemical Transportation Emergency Center (US); CHIP-Chemical Hazard Information and Packaging; DSL-Domestic Substances List; EC-Equivalent Concentration; EH40 (UK)-HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA-Emergency Planning and Community Right-To-Know Act; ESL-Effects screening levels; GHS-Globally Harmonized System of Classification and Labelling of Chemicals; HMIS-Hazardous Material Information Service; IATA-International Air Transport Association; IMDG-International Maritime Dangerous Goods Code; LC-Lethal Concentration; LD-Lethal Dose; NFPA-National Fire Protection Association; OEL-Occupational Exposure Limit; OSHA-Occupational Safety and Health Administration, US Dept. of Labor; PEL-Permissible Exposure Limit; SARA (Title III)-Superfund Amendments and Reauthorization Act; SARA 313-Superfund Amendments and Reauthorization Act, Section 313; SCBA-Self-Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ-Texas Commission on Environmental Quality; TLV-Threshold Limit Value; TSCA-Toxic Substances Control Act Public Law 94-469; TWA-Time Weighted Value; US DOT-US Department of Transportation; WHMIS-Workplace Hazardous Materials Information System.

Disclaimer

The information contained in this Safety Data Sheet (SDS) is considered accurate as of the version date. However, no warranty is expressed or implied regarding the accuracy of the data. Since the use of this product is not within the control of Buddy Rhodes Concrete Products, it is the user's obligation to determine the suitability of the product for its intended application and assumes all risk and liability for its safe use.