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

1.1 Product Identifier
Trade Name:  Ultrafine Earth

1.2 Relevant identified uses of the substance or mixture and uses advised against
General Use:  Concrete Additives
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 irritation – Category 2
H319  Eye irritation – Category 2A
H350  Carcinogenicity – Category 1A
H372  Specific Target Organ Toxicity (Repeated Exposure, Lungs) – Category 1

2.2 GHS Label elements, including precautionary statements

Pictogram(s):
Signal word:  Danger

Health Hazards
H315  Causes skin irritation.
H319  Causes serious eye irritation.
H350  May cause cancer.
H372  Causes damage to organs through prolonged or repeated exposure.

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.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash with soap and water thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response Precautions
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Disposal Precautions
P501 Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS
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:

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz</td>
<td>14808-60-7</td>
<td>15 – 30</td>
</tr>
<tr>
<td>Geothite</td>
<td>20344-49-4</td>
<td>50 – 70</td>
</tr>
<tr>
<td>Muscovite mica</td>
<td>12001-26-2</td>
<td>10 – 20</td>
</tr>
</tbody>
</table>

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.
None known.

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

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control Parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz</td>
<td>14808-60-7</td>
<td>TWA</td>
<td>0.025 mg/m$^3$</td>
<td>ACGIH Threshold Limit Values (TLV)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>30 mg/m$^3$/%SiO$_2$ +2</td>
<td>OSHA Table Z-3 Mineral Dusts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>10 mg/m$^3$/%SiO$_2$ +2</td>
<td>OSHA Table Z-3 Mineral Dusts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>250 mppcf/%SiO$_2$+5</td>
<td>OSHA Table Z-3 Mineral Dusts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>0.05 mg/m$^3$</td>
<td>NIOSH Recommended Exposure Limits</td>
</tr>
</tbody>
</table>

### 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

<table>
<thead>
<tr>
<th>Appearance:</th>
<th>Yellow brown powder</th>
<th>Vapor pressure:</th>
<th>No data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor:</td>
<td>Slight</td>
<td>Vapor density (Air=1):</td>
<td>No data</td>
</tr>
<tr>
<td>pH:</td>
<td>No data</td>
<td>Evaporation rate:</td>
<td>No data</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>No data</td>
<td>Solubility in water:</td>
<td>Very slight</td>
</tr>
</tbody>
</table>
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  LD50 oral rat > 22,500 mg/kg
Iron Oxide  LD 50 oral rat > 15,000 mg/kg

Skin Corrosion/Irritation
Slight

Serious Eye Damage/Irritation
Slight

Inhalation
Inhalation of the dust may cause mechanical irritation to the respiratory tract. Excessive exposure above the TLV can give mild pulmonary irritation. Long term overexposure to silica causes silicosis. This product is considered a carcinogen by IARC because it contains crystalline silica at levels greater than 0.1%.

Germ Cell Mutagenicity
No data available
Carcinogenicity
IARC  1-Group 1: Carcinogenic to humans (quartz)
NTP  Known to be a human carcinogen (quartz)
OSHA  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity
No data

Specific Target Organ Toxicity – Single Exposure
No data

Specific Target Organ Toxicity – Repeated Exposure
Inhalation – causes damage to organs through prolonged or repeated exposure (lungs).

Aspiration Hazard
No data

Chronic Exposure
See Inhalation above.

Potential Health Effects – Miscellaneous
Exposure to dust may cause mucous membrane and respiratory irritation, cough, sore throat, nasal congestion, sneezing and shortness of breath. However, there may be no immediate signs or symptoms of exposure to hazardous concentrations of respirable crystalline silica (quartz). See Long-Term Overexposure below for symptoms of silicosis. The absence of symptoms is not necessarily indicative of safe conditions.

Section 12 - Ecological Information

12.1 Toxicity  
No data available

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

<table>
<thead>
<tr>
<th></th>
<th>Land transport (DOT)</th>
<th>Sea transport (IMDG)</th>
<th>Air transport (ICAO/IATA)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UN number:</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>UN proper shipping name:</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Transport hazard class(s):</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Packing group:</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Environmental hazards:</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Special precautions for user:</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Section 15 - Regulatory Information

15.1 Safety health and environmental regulations/legislation specific for the substance or mixture


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**

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

Component  CAS#  State
Quartz  MA, PA, NJ  10 – 20%

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

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.

This SDS is prepared to comply with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) as prescribed by the United States (US) Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian

Classifications of the chemical in accordance with 29 CFR 1910.1200, signal word, hazard and precautionary statement(s), symbol(s) and other information are based on listed concentration of each hazardous ingredient. Unlisted ingredients are not "hazardous" per the OSHA Hazard Communication Standard (29 CFR 1910.1200), WHMIS and EC No 1907/2006 and are considered trade secrets under US Federal Law (29 CFR and 40 CFR), Canadian Law (Health Canada Legislation), and European Union Directives.