Section 1: Product Identification

Product Name:
SAKRETE Ash Tray Sand (Black)

Product Type: Coal Slag

Section 2: Hazard Identification

Stable, amorphous glass-like compounds.

Classification in accordance with 29 CFR 1910.1200
- Acute Toxicity (Oral), Category 4 (20% unknown)
- Skin Corrosion / Irritation, Category 3
- Eye Damage / Irritation, Category 2A
- Carcinogenicity, Category 2
- Specific Target Organ Toxicity - Single Exposure, Category 2 (respiratory system)
- Specific Target Organ Toxicity - Single Exposure, Category 2 (digestive system and/or systemic toxicity)
- Specific Target Organ Toxicity - Repeated Exposure, Category 2 (respiratory system, lungs)

GHS LABEL ELEMENTS
Symbol(s)

Signal Word
WARNING

Hazard Statement(s)
Harmful if swallowed.
Can cause skin irritation.
May cause damage to respiratory system, lungs through prolonged or repeated exposure.
Precautionary Statement(s)

**Prevention**
Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/clothing and eye/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

**Response**
IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

**Storage**
Store locked up. Store in a secure, controlled area.

**Disposal**
Dispose in accordance with all applicable regulations.

---

Section 3: Hazardous Ingredients/Composition

<table>
<thead>
<tr>
<th>Component</th>
<th>Percent %</th>
<th>CAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amorphous Silicon Dioxide</td>
<td>48-50</td>
<td>7631-86-9</td>
</tr>
<tr>
<td>Aluminum oxide</td>
<td>18-22</td>
<td>1344-28-1</td>
</tr>
<tr>
<td>Iron oxide (Fe203)</td>
<td>18-22</td>
<td>1309-37-1</td>
</tr>
<tr>
<td>Calcium Oxide</td>
<td>5-7</td>
<td>1305-78-8</td>
</tr>
<tr>
<td>Potassium Oxide</td>
<td>1-2</td>
<td>12136-45-7</td>
</tr>
<tr>
<td>Titanium Oxide</td>
<td>0-1</td>
<td>13463-67-7</td>
</tr>
<tr>
<td>Magnesium Oxide</td>
<td>0-1</td>
<td>1309-48-4</td>
</tr>
<tr>
<td>Sodium Oxide</td>
<td>0-1</td>
<td>1313-59-3</td>
</tr>
<tr>
<td>Quartz</td>
<td>0-0.1</td>
<td>14808-60-7</td>
</tr>
<tr>
<td>Cristobalite</td>
<td>0-0.1</td>
<td>14464-46-1</td>
</tr>
<tr>
<td>Beryllium</td>
<td>0-0.0005</td>
<td>7440-41-7</td>
</tr>
</tbody>
</table>

**Others**
Evidence may exist to indicate that components present in this material in concentrations of less than one percent (or in the case of carcinogens, less than 0.1 percent) could be released in concentrations which would exceed an established OSHA permissible exposure limit or ACGIH Threshold Limit Value, or could present a health risk to employees in those concentrations.

Employee exposure monitoring should be performed to determine exposure levels.
Section 4: First Aid Measures

Description of Necessary Measures

Inhalation:
If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

Eye contact:
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Do not rub eyes. Continue rinsing. Then get immediate medical attention.

Skin Contact:
If adverse effects occur, wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed.

Ingestion:
If a large amount is swallowed, get immediate medical attention. Rinse mouth. Check with the Poison Control Center or a doctor. Do not induce vomiting unless directed to do so by medical personnel.

Most Important Symptoms/Effects

Acute
Respiratory tract irritation, skin irritation, eye irritation.

Delayed
Respiratory system damage, lung damage.

Note to physician: Treat according to symptoms. No known specific antidote.

Section 5: Fire Fighting Measures

Suitable Extinguishing Media
Use extinguishing agents appropriate for surrounding fire.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Negligible fire hazard.

Hazardous combustion products
None known.

Fire Fighting Measures
Use extinguishing agents appropriate for surrounding fire. Stay upwind and keep out of low areas. Avoid inhalation of material or combustion by-products.

Special Protective Equipment and Precautions for Firefighters
Wear full protective firefighting gear including self-contained breathing apparatus (SCBA) for protection against possible exposure.
Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures
Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment.

Methods and Materials for Containment and Cleaning Up
Collect spilled material in appropriate container for disposal. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). If sweeping of a contaminated area is necessary, use a dust suppressant agent. Move containers away from spill to a safe area. Wet down area with water.

Section 7: Handling and Storage

Precautions for Safe Handling
Wash thoroughly after handling. Do not breathe dust. Do not eat, drink or smoke when using this product. Wear protective gloves/clothing and eye/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

Conditions for Safe Storage, including any Incompatibilities
Store and handle in accordance with all current regulations and standards. Protect from physical damage.

Section 8: Exposure Controls/Personal Protection

Occupational Exposure Limits:

<table>
<thead>
<tr>
<th>Substance</th>
<th>OSHA (US)</th>
<th>OSHA Mexico*</th>
<th>ACGIH TWA</th>
<th>NIOSH REL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron oxide (Fe2O3) (1309-37-1)</td>
<td>10 mg/m³ TWA (fume) 15 mg/m³ (total dust) 5 mg/m³ TWA (respirable fraction)</td>
<td>5 mg/m³ TWA LMPE-PPT 10 mg/m³ STEL [LMPE-CT] (as Fe) 5 mg/m³ (respirable)</td>
<td>5 mg/m³ (as Fe, dust and fume) 2500 mg/m³ IDLH (as Fe, dust and fume)</td>
<td></td>
</tr>
<tr>
<td>Silicon Dioxide (7631-86-9)</td>
<td>20 mppcf TWA; (80)/(%SiO2 mg/m³ TWA)</td>
<td></td>
<td></td>
<td>6 mg/m³ TWA 3000 mg/m³ IDLH</td>
</tr>
<tr>
<td>Calcium oxide (1305-78-8)</td>
<td>5 mg/m³ TWA</td>
<td>2 mg/m³ TWA LMPE-PPT</td>
<td>2 mg/m³ TWA</td>
<td>2 mg/m³ TWA 25 mg/m³ IDLH</td>
</tr>
<tr>
<td>Aluminum</td>
<td>15 mg/m³ TWA</td>
<td>10 mg/m³ TWA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appropriate Engineering Controls:
Provide local exhaust or process enclosure ventilation system. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

Personal protective equipment

**Respiratory protection:** Where dust or vapor concentration exceeds or is likely to exceed applicable exposure limits, a NIOSH approved respirator is required.

**Skin protection** Wear appropriate chemical resistant clothing.

**Glove Recommendations:** Wear appropriate chemical resistant gloves.

**Eye protection:** Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

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### Section 9: Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Coarse Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Black shiny solid</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
<tr>
<td>Physical Form</td>
<td>Solid</td>
</tr>
<tr>
<td>Odor</td>
<td>No characteristic odor</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>Not Available</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not Available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not Available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Non-Flammable, Non-Explosive</td>
</tr>
<tr>
<td>Decomposition</td>
<td>Not Available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not Available</td>
</tr>
<tr>
<td>OSHA Flammability Class</td>
<td>Non-Flammable</td>
</tr>
<tr>
<td>LEL</td>
<td>Not Available</td>
</tr>
<tr>
<td>UEL</td>
<td>Not Available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Vapor Density (air = 1)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Density</td>
<td>Not Available</td>
</tr>
<tr>
<td>Specific Gravity (water = 1)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Marginal</td>
</tr>
</tbody>
</table>
Log KOW: Not Available
Coeff. Water/Oil Dist: Not Available
Viscosity: Not Available

Other Property Information
No additional information is available.

Section 10: Stability and Reactivity

Reactivity: No reactivity hazard is expected.
Chemical Stability: Stable at normal temperatures and pressure.
Possibility of Hazardous Reactions: Will not polymerize.
Conditions to Avoid: Avoid accumulation of airborne dusts.
Incompatible Materials: None.
Hazardous Decomposition
Combustion: Miscellaneous decomposition products.

Section 11: Toxicological Information

Acute and Chronic Toxicity
Component Analysis - LD50/LC50
The components of this material have been reviewed in various sources and the following endpoints are published:

- **Iron oxide (Fe2O3) (1309-37-1)**
  - Oral LD50 Rat >10000 mg/kg
- **Silicon Dioxide (7631-86-9)**
  - Oral LD50 Rat >5000 mg/kg; Dermal LD50 Rabbit >2000 mg/kg
- **Calcium oxide (1305-78-8)**
  - Oral LD50 Rat 500 mg/kg
- **Aluminum oxide (1344-28-1)**
  - Oral LD50 Rat >5000 mg/kg

Information on Likely Routes of Exposure

**Inhalation**
Throat irritation, difficulty breathing.

**Ingestion**
Diarrhea, stomach pain, difficulty breathing.

**Skin Contact**
Skin irritant.

**Eye Contact**
Eye irritant.

**Immediate Effects**
Eye and Skin Irritant, Shortness of Breath.

**Delayed Effects**
Respiratory system damage.
Medical Conditions Aggravated by Exposure
   Respiratory disorders, eye disorders, skin disorders.

Irritation/Corrosivity Data
   Respiratory tract irritant, skin irritant, eye irritant.

Local Effects
   Calcium oxide (1305-78-8)
   Corrosive: inhalation, skin, eye, ingestion.

Respiratory Sensitization
   No data available.

Dermal Sensitization
   No data available.

Carcinogenicity
   Available data characterizes components of this product as possible carcinogen hazards.

Component Carcinogenicity
   Iron oxide (Fe2O3) (1309-37-1)
   ACGIH: A4 - Not Classifiable as a Human Carcinogen
   IARC: Supplement 7 [1987]; Monograph 1 [1972] (Group 3 (not classifiable)).
   DFG: Category 3B (could be carcinogenic for man, with the exception of non-bioavailable ferrous oxides).

Mutagenic Data
   No data available.

Reproductive Effects Data
   Not data available.

Tumorigenic Data
   No data available.

Specific Target Organ Toxicity – Single Exposure
   Respiratory system, digestive system.

Specific Target Organ Toxicity – Repeated Exposure
   Respiratory system, lungs.

Aspiration Hazard
   No data available.

Section 12: Ecological Information

Ecotoxicity
Component Analysis – Aquatic Toxicity
   Silicon Dioxide (7631-86-9)
   Fish: 96 Hr LC50 Brachydania rario: 5000 mg/L [static]
   Algae: 72 Hr EC50 Pseudokirchneriella subcapitata: 440 mg/L
   Invertabrate: 48 Hr EC50 Ceriodaphnia dubia: 7600 mg/L
   Calcium oxide (1305-78-8)
Fish: 96 Hr LC50 Cyprinus carpio: 1070 mg/L [static]

Persistence and Degradability
No information available for the product.

Bioaccumulative Potential
No information available for the product.

Mobility
No information available for the product.

Section 13: Disposal Considerations
Dispose of in accordance with federal, state, and local regulations.

Section 14: Transportation
Not a DOT-regulated hazardous material. Not classified as dangerous goods for DOT, IATA, IMDG, TDG.

Section 15: Regulatory Information

Component Analysis
U.S. Federal Regulations
This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372-65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require OSHA process safety plan.

Aluminum oxide (1344-28-1)
SARA 313: 1.0 % de minimis concentration (fibrous forms)

SARA 311/312 Hazardous Categories
Acute Health: Yes Chronic Health: Yes Fire: No Pressure: No Reactive: No

U.S. State Regulations
The following components appear on one or more of the following state hazardous substances lists:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron oxide (Fe2O3)</td>
<td>1309-37-1</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Silicon Dioxide</td>
<td>7631-86-9</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Calcium oxide</td>
<td>1305-78-8</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Aluminum oxide</td>
<td>1344-28-1</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Titanium oxide</td>
<td>7440-66-6</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Potassium oxide</td>
<td>12136-45-7</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Magnesium oxide 1309-48-4 Yes Yes No Yes Yes
Iron oxide (Fe2O3) 1313-59-3 Yes Yes Yes Yes Yes

Component Analysis - Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>US</th>
<th>CA</th>
<th>EU</th>
<th>AU</th>
<th>PH</th>
<th>JP</th>
<th>KR</th>
<th>CN</th>
<th>NZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron oxide (Fe2O3)</td>
<td>1309-37-1</td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
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<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Titanium oxide</td>
<td>7440-66-6</td>
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<td>DSL</td>
<td>EIN</td>
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<td>No</td>
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<td>EIN</td>
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<td>Yes</td>
<td>No</td>
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<td>Magnesium oxide</td>
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<td>DSL</td>
<td>EIN</td>
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<td>Yes</td>
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<tr>
<td>Sodium oxide</td>
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<td>DSL</td>
<td>EIN</td>
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<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Key / Legend
ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA – Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States
Section 16: Other Information

Additional information on the products is available at www.tccmaterials.com

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