

©Roberts Concrete Products (a TCC Materials company) Version 1.1

Roberts Concrete Products 2025 Centre Pointe Boulevard, Suite 300 Mendota Heights, MN 55120-1221 Emergency Telephone Number: 651-688-9116 Information Telephone Number 651-688-9116 Revision Date March 2016

Section 1: Product Identification

Product Type: Coal Slag

Product Name:

SAKRETE Ash Tray Sand (Black)

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.



©Roberts Concrete Products (a TCC Materials company) Version 1.1

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.

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

Section 3: Hazardous Ingredients/Composition

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.



©Roberts Concrete Products (a TCC Materials company) Version 1.1

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.



©Roberts Concrete Products (a TCC Materials company) Version 1.1

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:

	OSHA (US)	OSHA Mexico*	ACGIH TWA	NIOSH REL
Iron oxide (Fe2O3) (1309-37-1)	10 mg/m ³ TWA (fume) 15 mg/m ³ (total dust) 5 mg/m ³ TWA (respirable fraction)	5 mg/m ³ TWA LMPE-PPT 10 mg/m ³ STEL [LMPE- CT] (as Fe)	5 mg/m ³ (respirable)	5 mg/m ³ (as Fe, dust and fume) 2500 mg/m ³ IDLH (as Fe, duct and fume)
Silicon Dioxide (7631-86-9)	20 mppcf TWA; (80)/(%SiO2 mg/m ³ TWA			6 mg/m ³ TWA 3000 mg/m ³ IDLH
Calcium oxide (1305-78-8)	5 mg/m ³ TWA	2 mg/m ³ TWA LMPE- PPT	2 mg/m ³ TWA	2 mg/m ³ TWA 25 mg/m ³ IDLH



©Roberts Concrete Products (a TCC Materials company) Version 1.1

Aluminum	15 mg/m ³ TWA	10 mg/m ³ TWA	
oxide	(total dust)	LMPE-PPT	
(1344-28-1)	5 mg/m^3		
	(respirable		
	fraction)		

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.

Physical State:	Coarse Solid
Appearance:	Black shiny solid
Color:	Black
Physical Form:	Solid
Odor:	No characteristic odor
Odor Threshold:	Not available
pH:	Not Available
Melting Point:	Not Available
Boiling Point:	Not Applicable
Melting Point:	Not Available
Boiling Point:	Not Applicable
Flash Point:	Non-Flammable, Non-Explosive
Decomposition:	Not Available
Evaporation Rate:	Not Available
OSHA Flammability Class:	Non-Flammable
LEL:	Not Available
UEL:	Not Available
Vapor Pressure:	Not Applicable
Vapor Density (air = 1):	Not Applicable
Density:	Not Available
	Page 5 of 10
	-

Section 9: Physical and Chemical Properties



©Roberts Concrete Products (a TCC Materials company) Version 1.1

Specific Gravity (water = 1): Water Solubility: Log KOW: Coeff. Water/Oil Dist: Viscosity: Not Available Marginal Not Available Not Available 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.



©Roberts Concrete Products (a TCC Materials company) Version 1.1

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]; Monogragh 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 Brachydanio rerio: 5000 mg/L [static] **Algae:** 72 Hr EC50 Pseudokirchneriella subcapitata: 440 mg/L



©Roberts Concrete Products (a TCC Materials company) Version 1.1

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:

Component	CAS	CA	MA	MN	NJ	PA
Iron oxide (Fe2O3)	1309-37-1	Yes	Yes	Yes	Yes	Yes
Silicon Dioxide	7631-86-9	Yes	Yes	Yes	Yes	Yes
Calcium oxide	1305-78-8	Yes	Yes	Yes	Yes	Yes
Aluminum oxide	1344-28-1	Yes	Yes	Yes	Yes	Yes



©Roberts Concrete Products (a TCC Materials company) Version 1.1

Titanium oxide	7440-66-6	Yes	Yes	No	Yes	Yes
Potassium oxide	12136-45-7	Yes	Yes	No	Yes	Yes
Magnesium oxide	1309-48-4	Yes	Yes	No	Yes	Yes
Iron oxide (Fe2O3)	1313-59-3	Yes	Yes	Yes	Yes	Yes

Component Analysis - Inventory

Component	CAS	US	CA	EU	AU	PH	JP	KR	CN	NZ
Iron oxide (Fe2O3)	1309-37-1	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
Silicon Dioxide	7631-86-9	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
Calcium oxide	1305-78-8	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
Aluminum oxide	1344-28-1	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
Titanium oxide	7440-66-6	Yes	DSL	EIN	Yes	Yes	No	Yes	Yes	Yes
Potassium oxide	12136-45-	Yes	DSL	EIN	Yes	Yes	No	Yes	Yes	Yes
	7									
Magnesium oxide	1309-48-4	Yes	DSL	EIN	Yes	Yes	No	Yes	Yes	Yes
Sodium oxide	1313-59-3	Yes	DSL	EIN	Yes	Yes	No	Yes	Yes	Yes

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



©Roberts Concrete Products (a TCC Materials company) Version 1.1

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

Roberts Concrete Products[®], a TCC Materials[®] company, is a licensed manufacturer of SAKRETE[®]

SAKRETE® is a registered trademark of SAKRETE of North America, LLC.

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.