

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Name:

Bauxite

CAS No. 1318-16-7

Product Formula:

 Aluminum Oxide Mixture; Metallic Hydroxide/Oxide (Al₂ H₂ O₄)

1.2. Intended Use of the Product

Use of the substance/mixture: This is a naturally occurring sedimentary rock, non-chemically treated.

Uses advised against: None known

1.3. Name, Address, and Telephone of the Responsible Party

Charah Solutions, Inc.

12601 Plantside Dr.

Louisville, Kentucky 40299

www.charah.com

502-245-1353

1.4. Emergency Telephone Number

Emergency Number: 800-424-9300 (24-hour response by Chemtrec)


502-245-1353 (7 am – 5 pm ET M-F)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance

As shipped, this product does not pose any health hazard because the moisture content reduces the ability for particulate matter to become airborne. If dried non-hazardous dust may be created which may irritate unprotected eyes.

2.2. Label Elements

Labelling according to 29 CFR 1910.1200 Appendices A, B and C*	
Hazard Pictograms:	
Signal Word:	Danger
Hazard Statements:	Harmful if inhaled. Harmful if swallowed. Causes skin irritation. Causes serious eye damage.
Precautionary Statements:	If on EYES, rinse with water for several minutes. If on SKIN, wash with plenty of soap and water. Use outdoors or in a well-ventilated area. If inhaled: Remove to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell. If SWALLOWED, promptly drink large amounts of water. Store in a secure area. Dispose of product in accordance with local/national regulations.

2.3. Other Hazards

None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance Name	Product Identifier	%	Classification (GHS-U.S.)
Iron Oxide	(CAS No) 1309-37-1	1.0 - 1.75	None
Silicon Dioxide	(CAS No) 14808-60-7	2.0 - 7.5	None
Aluminum Oxide	(CAS No) 1344-28-1	58 - 60	None
Titanium Oxide	(CAS No) 13463-67-7	+/- 2.7	None
LOI	N/A	20 - 30	N/A
Moisture	N/A	3 - 8	N/A

SECTION 4: FIRST AID MEASURES**4.1. Description of First Aid Measures**

Inhalation: Product is considered a nuisance dust; overexposure may produce irritation of the eyes and upper respiratory tract. Preexisting medical condition may be generally aggravated by exposure including but not limited to Bronchitis, Emphysema, and Asthma. Remove to fresh air. Seek medical treatment if irritation or discomfort persists. If not breathing, give artificial respiration. Administer oxygen if breathing is difficult. Get medical attention.

Skin Contact: If skin exposure occurs, wash with soap and water. Seek medical treatment if irritation occurs.

Eye Contact: If product gets into the eye, rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Seek medical attention/advice if irritation occurs or persists.

Ingestion: Rare in industry. Give victim large quantities of water or milk to induce vomiting (only if the person is conscious). Get medical attention.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed

Acute Effects: Direct exposure may cause respiratory irritation, eye irritation and skin irritation.

Chronic Effects: Possible lung injury on chronic inhalation of dust.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES**5.1. Extinguishing Media**

Suitable Extinguishing Media: This material is inert, non-flammable and non-combustible.

Unsuitable Extinguishing Media: No information available.

5.2. Special Hazards Arising from the Substance or Mixture Fire Hazard: Use water spray to cool fire exposed surfaces.

Explosion Hazard: None

Reactivity: None

Hazardous Combustion Products: None

5.3. Advice for Firefighters

Precautionary Measures Fire: None

Special Protective Equipment and Precautions for Firefighters: As with any fire, wear self-contained breathing apparatus (NIOSH approved or equivalent) and full protective gear.

5.4. Additional**Information**

NFPA Ratings (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe)

Health = 1 Fire = 0 Reactivity = 0

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid breathing dust. Use adequate ventilation. For concentrations exceeding Occupational Exposure Levels (OELs), use a self-contained breathing apparatus (SCBA).

6.1.1. For Non-emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE). Wear protective clothing, gloves and eye/ face protection.

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Responders

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

6.2. Environmental Precautions

Prevent contamination of drains or waterways and dispose according to local and national regulations.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Dike spill area to prevent runoff into sewers or surface waterways.

Methods for Cleaning Up: Shovel up spills and store in labeled waste containers for disposal. Avoid dust formation. Stand upwind if possible. Residual spillage that cannot be removed by shoveling should be cleaned up from hard surfaces as appropriate.

See Sections 8 and 13 for additional information on exposure controls and disposal.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Provide adequate ventilation when using the material and follow the principles of good occupational hygiene to control personal exposures. Avoid contact with skin and eyes. Wash thoroughly after handling. Avoid prolonged or repeated breathing of dust.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Store in a dry place.

Storage Conditions: Store in a dry, cool and well-ventilated place.

Incompatible Materials: None anticipated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

OCCUPATIONAL EXPOSURE LIMITS		
SUBSTANCE	OSHA PEL TWA	ACGIH TLV TLV
Iron Oxide III	10 mg/m ³ Respirable Dust	5 mg/m ³ Respirable Dust
Amorphous Silica	0.1 mg/m ³ Respirable Dust	0.1 mg/m ³ Respirable Dust
Crystalline Silica	0.1 mg/m ³ Respirable Dust 0.05 mg/m ³ Tridymite 0.05 mg/m ³ Cristolbalite	0.1 mg/m ³ Respirable Dust

8.2. Exposure Controls

Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

Personal Protective Equipment:

Avoid all unnecessary exposure. Protective goggles. Gloves. Face mask.



Materials for Protective Clothing:

Standard work clothing and work shoes.

Hand Protection:

Wear protective gloves. Wear chemically resistant protective gloves.

Eye Protection:

Chemical safety goggles and face shield.

Respiratory Protection:

Have self-contained breathing apparatus, positive pressure, NIOSH/MSHA (approved or equivalent) available in case of spillage or equipment failure.

Environmental Exposure Controls:

Do not allow the product to be released into the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Property: Value	Property: Value
Appearance (physical state, color, etc.): Inert Granular Yellow or Light Gray Material or Orange/Red Rock	Upper/lower flammability or explosive limits: Not applicable
Odor: No Appreciable Odor	Vapor Pressure (Pa): Not determined
Odor threshold: Not applicable	Vapor Density: Not determined
pH (25 °C): Not applicable	Specific gravity or relative density: >3
Melting point/freezing point (°C): 2000	Water Solubility: Insoluble
Initial boiling point and boiling range (°C): Not determined	Partition coefficient: n-octane/water: Not determined
Flash point (°C): Not determined	Auto ignition temperature (°C): Not applicable
Evaporation rate: Not determined	Decomposition temperature (°C): Not determined
Flammability (solid, gas): Not applicable	Viscosity: Not determined

9.2 Other Information: No additional information available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: No data available.

10.2. Chemical Stability: The material is stable.

10.3. Possibility of Hazardous Reactions: None under normal conditions.

10.4. Conditions to Avoid: Avoid breathing of dust.

10.5. Incompatible Materials: None known.

10.6. Hazardous Decomposition Products: None under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Oral	Rat, LD50: No information available.
Inhalation	Rat, LC50: No information available.
Dermal	Rabbit, LD50: No information available.
Eye	Primary eye irritation.
Carcinogenicity	Not listed by NTP, IARC or OSHA.
Teratology	Data not available.
Reproduction	Data not available.
Mutagenisty	Data not available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Ecotoxicity

Fish	No information available.
Crustacea	No information available.
Algae/Aquatic Plants	No information available.

12.2. Persistence and Degradability

No information available.

12.3. Bioaccumulative Potential

No information available.

12.4. Mobility in Soil

No information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Waste Disposal Recommendations: Reclaim material where possible. Bauxite is sold for use as a fine aggregate in concrete. Dispose of all waste product and containers in accordance with federal, state and local regulations.

SECTION 14: TRANSPORT INFORMATION

DOT	Not regulated.
ICAO/IATA	Not regulated.
IMDG	Not regulated.

SECTION 15: REGULATORY INFORMATION**15.1 US Federal Regulations**

TSCA:	All ingredients are on the inventory or exempt from listing.
OSHA:	Not a hazardous substance under the Hazard Communication Standard, 29 CFR 1910.1200.
CERCLA:	Reportable quantity does not apply.
SARA Title III:	Extremely Hazardous Substance: No.
RCRA:	Not Applicable.
CA Prop 65:	Not applicable.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION**16.1 Indication of Changes**

Date of preparation or last revision: July 09, 2021

16.2 Abbreviations and Acronyms

- ACGIH: American Conference of Industrial Hygienists
- CA: California
- CAS: Chemical Abstract Services
- CCP: Coal Combustion Product
- CFR: Code of Federal Regulations
- EPA: Environmental Protection Agency
- GHS: Globally Harmonized System of Classification and Labelling
- HMIS: Hazardous Materials Identification System
- IARC: International Agency for Research on Cancer
- LC50: Concentration resulting in the mortality of 50 % of an animal population
- LD50: Dose resulting in the mortality of 50 % of an animal population
- MA: Massachusetts
- NA: Not Applicable
- NIOSH: National Institute of Occupational Safety and Health
- NJ: New Jersey
- NOEC: No Observed Effect Concentration
- NTP: US National Toxicology Program
- OEL: Occupational Exposure Level
- OSHA: Occupational Safety and Health Administration
- PA: Pennsylvania
- Pa: Paschal
- PEL: Permissible Exposure Limit
- PPE: Personal Protective Equipment
- RCS: Respirable Crystalline Silica
- REL: Recommended Exposure Limit
- RI: Rhode Island
- RTK: Right-to-Know
- SCBA: Self-Contained Breathing Apparatus
- SDS: Safety Data Sheet



Bauxite

Safety Data Sheet

Date: 07/09/2021

Version 1.0

- STOT-RE: Specific Target Organ Toxicity-Repeated Exposure
- STOT-SE: Specific Target Organ Toxicity-Single Exposure
- TLV: Threshold Limit Value
- TSCA: Toxic Substances Control Act
- TWA: Time-Weighted Average
- U.S.: United States
- U.S. DOT: United States Department of Transportation
- UVCB: Unknown or Variable Composition/Biological

DISCLAIMER:

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