

SAFETY DATA SHEET

Revision date 2015-05-16

Revision number 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name BAUXITE

Other means of identification

Product code 3215N
Synonyms Aluminum Oxide Mixture

Recommended use of the chemical and restrictions on use

Recommended use [RU] No information available
Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier GEO Specialty Chemicals, Inc.
9213 Arch Street Pike
Little Rock, AR 72206
+1-800-453-2586
Hours: Monday-Friday 9:00-5:00 CST (Central Standard Time)

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC: (800) 424-9300
Outside USA - +1 (703) 527-3887 collect calls accepted

Contact Point safety-data-sheet-fp@geosc.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Carcinogenicity	Category 2
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GHS Label elements, including precautionary statements

EMERGENCY OVERVIEW

Physical state solid	Color tan to reddish-brown	Appearance rock to soil-like	Odor odorless
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**WARNING****Hazard statements**

Suspected of causing cancer

Precautionary Statements - Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Use personal protective equipment as required

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

- Not applicable

Unknown acute toxicity

- 0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	weight-%	TRADE SECRET
Silica	7631-86-9	6 - 15%	*
Iron oxide	1309-37-1	0 - 12%	*
Titanium dioxide	13463-67-7	2 - 5%	*

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First Aid Measures

Eye contact

Remove contact lenses, if worn. Immediately flush with plenty of water for at least 15 minutes, holding eyelids apart to ensure flushing of the entire surface. Washing within one minute is essential to achieve maximum effectiveness. Get medical attention if irritation develops and persists.

Skin contact

Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

Ingestion

If victim is conscious and able to swallow, give large amounts of water. Never give anything by mouth to an unconscious person. If vomiting should occur spontaneously, keep airway clear. Seek medical advice immediately.

Inhalation

Remove to fresh air. Blow nose to evacuate dust and drink water to clear throat. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Seek immediate medical attention.

Most important symptoms and effects, both acute and delayed

Acute effects

Possible eye, skin and respiratory tract irritation.

Chronic effects

Possible lung injury on chronic inhalation of dust. This product may contain naturally occurring crystalline silica; however, it has been tested to contain < 0.05% by weight free silica. Repeated inhalation of crystalline silica may cause pulmonary fibrosis (silicosis). Breathing of dust may aggravate acute or chronic asthma and other chronic pulmonary diseases.

Aggravated Medical Conditions

Existing skin, eye and lung conditions.

Indication of any immediate medical attention and special treatment needed

Note to physicians

Treat symptomatically. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Not combustible. Use appropriate extinguishing media for material that is supplying fuel. Use water spray to cool the surrounding area and maintain fire temperature below decomposition temperature.

Extinguishing media which must not be used for safety reasons

No information available

Special hazards arising from the substance or mixture

Special Hazard

Use water spray to cool fire exposed surfaces.

Advice for firefighters

Firefighting measures

Non-combustible material. Extinguish fire by using the appropriate agent for type of material that is supplying the fuel in the surrounding fire or use dry chemical, dry sand or carbon dioxide.

Special protective equipment for firefighters

Full protective clothing and approved self-contained breathing apparatus required for firefighting personnel.

Explosion data**Sensitivity to Mechanical Impact**

None.

Sensitivity to Static Discharge

None.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures**Personal precautions**

Wear suitable protective clothing and gloves.

Environmental precautions**Environmental precautions**

Avoid runoff to waterways and sewers.

Methods and material for containment and cleaning up**Methods for containment**

Prevent further leakage or spillage if safe to do so.

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 shovelling should be cleaned up from hard surfaces as appropriate.

7. HANDLING AND STORAGE

Precautions for safe handling**Advice on safe handling**

Do not get in eyes, on skin, or on clothing

Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing.

Wash thoroughly after handling

Take off contaminated clothing and wash before reuse

Contaminated work clothing should not be allowed out of the workplace

Avoid creating dust

Minimize dust generation and accumulation

Stand upwind if possible.

Do not take internally

Conditions for safe storage, including any incompatibilities**Technical measures and storage conditions**

Store in a dry place

Incompatible products

None anticipated.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Component	weight-%	ACGIH TLV	OSHA PEL	NIOSH IDLH
Aluminum oxide 1344-28-1	60 - 85%	--	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)	--
Silica 7631-86-9	6 - 15%	--	--	3000 mg/m ³ IDLH
Iron oxide 1309-37-1	0 - 12%	5 mg/m ³ TWA (respirable fraction)	10 mg/m ³ TWA (fume)	2500 mg/m ³ IDLH (dust and fume, as Fe)
Titanium dioxide 13463-67-7	2 - 5%	10 mg/m ³ TWA	15 mg/m ³ TWA (total dust)	5000 mg/m ³ IDLH
Silica-crystalline, quartz 14808-60-7	< 0.05%	0.025 mg/m ³ TWA (respirable fraction)	--	50 mg/m ³ IDLH (respirable dust)

Appropriate engineering controls**Engineering controls**

Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details. If there are no applicable or established exposure limit requirements or guidelines, general ventilation should be sufficient.

Individual protection measures, such as personal protective equipment**Eye/face Protection**

Wear chemical splash goggles and face shield (when eye and face contact is possible due to splashing or spraying of material).

Hand Protection

Appropriate chemical resistant gloves should be worn.

Skin and body protection

Standard work clothing and work shoes.

Respiratory protection

If exposures exceed the PEL or TLV, use NIOSH/MSHA approved respirator in accordance with OSHA Respiratory Protection Requirements under 29 CFR 1910.134. If there are no applicable or established exposure limit requirements or guidelines, general ventilation should be sufficient.

Other personal protection data

Eyewash fountains and safety showers must be easily accessible.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical state	solid
Color	tan to reddish-brown
Appearance	rock to soil-like
Odor	odorless
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks / Method</u>
pH	No information available	No information available
Melting / freezing point	2038 °C / 3700 °F	No information available
Boiling point / boiling range	No information available	No information available

Flash point	Not combustible	No information available
Evaporation rate	No information available	No information available
Flammability (solid, gas)	Not applicable	No information available
Flammability Limit in Air		
Upper flammability limit	No information available	No information available
Lower flammability limit	No information available	No information available
Vapor pressure	No information available	No information available
Vapor density	No information available	No information available
Specific gravity	2.4 - 2.6	No information available
Solubility (water)	insoluble	No information available
Solubility in other solvents	No information available	No information available
Partition coefficient: n-octanol/water	No information available	No information available
Autoignition temperature	No information available	No information available
Decomposition temperature	No information available	No information available
Kinematic viscosity	No information available	No information available
Dynamic viscosity	No information available	No information available

Other information

Density	No information available
Bulk Density	54 - 64 lb/ft ³
Explosive properties	No information available.
Oxidizing properties	No information available
Softening point	No information available
Molecular weight	No information available
Volatile organic compounds (VOCs) content	No information available
Percent Volatile, wt. %	No information available

10. STABILITY AND REACTIVITY**Reactivity****Reactivity**

No data available.

Chemical stability**Chemical stability**

Stable.

Possibility of hazardous reactions**Possibility of hazardous reactions**

None under normal processing.

Hazardous polymerization

Not anticipated under normal or recommended handling and storage conditions.

Conditions to avoid**Conditions to avoid**

None known

Incompatible materials**Materials to avoid**

None anticipated.

Hazardous decomposition products**Hazardous decomposition products**

None anticipated under normal conditions of use. In most severe fire conditions, decomposition may include toxic and/or hazardous gases such as oxides of aluminum, silicon, titanium, and iron.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Eye contact**

Dust may irritate eyes. Causes redness and tearing.

Skin contact

Mild skin irritation.

Ingestion

This material may be a slight health hazard if ingested in large quantities.

Inhalation

Inhalation of dust may cause irritation of the respiratory system.

Acute toxicity - Product Information**Oral LD50** No information available**Dermal LD50** No information available**Inhalation LC50** No information available**Acute toxicity - Component Information**

Component	weight-%	Oral LD50	Dermal LD50	Inhalation LC50
Aluminum oxide 1344-28-1	60 - 85%	> 5000 mg/kg (Rat)	--	--
Silica 7631-86-9	6 - 15%	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2.2 mg/L (Rat) 1 h
Iron oxide 1309-37-1	0 - 12%	> 10000 mg/kg (Rat)	--	--
Titanium dioxide 13463-67-7	2 - 5%	> 10000 mg/kg (Rat)	--	--
Silica-crystalline, quartz 14808-60-7	< 0.05%	= 500 mg/kg (Rat)	--	--

Information on toxicological effects**Symptoms**

No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation

Mild skin irritation

Serious eye damage/eye irritation

Mild eye irritation

Sensitization

No information available

Germ cell mutagenicity

No information available

Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA
Titanium dioxide 13463-67-7	--	Group 2B	--	X

Legend*ACGIH (American Conference of Governmental Industrial Hygienists)**A2 - Suspected Human Carcinogen**IARC (International Agency for Research on Cancer)**Group 1 - Carcinogenic to Humans**Group 2B - Possibly Carcinogenic to Humans**NTP (National Toxicology Program)**Known - Known Carcinogen**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**X - Present***Reproductive toxicity**

No information available

Specific target organ toxicity - Single exposure

No information available.

Specific target organ toxicity - Repeated exposure

No information available

Aspiration hazard

No information available.

Numerical measures of toxicity - Product Information

- 0% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	5561 mg/kg
ATEmix (dermal)	20020 mg/kg

Other information

Crystalline silica has been classified as a carcinogen by IARC. Crystalline silica is also a known cause of silicosis, a non-cancerous lung disease characterized by progressive dry cough, shortness of breath on exertion, and decreased chest expansion. This product contains < 0.05% of Crystalline Silica.

12. ECOLOGICAL INFORMATION

Ecotoxicity**Acute aquatic toxicity - Product Information**

Fish	No information available
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Crustacea No information available

Algae/aquatic plants No information available

Acute aquatic toxicity - Component Information

Component	weight-%	Algae/aquatic plants	Fish	Toxicity to daphnia and other aquatic invertebrates
Silica 7631-86-9	6 - 15%	EC50 (72 h) = 440 mg/L (Pseudokirchneriella subcapitata)	LC50 (96 h static) = 5000 mg/L (Brachydanio rerio)	EC50 (48 h) = 7600 mg/L (Ceriodaphnia dubia)

Persistence and degradability

Persistence and degradability

No information available

Bioaccumulative potential

Bioaccumulative potential

No information available.

Mobility

Mobility

No information available

Results of PBT and vPvB assessment

PBT and vPvB assessment

No information available

Other adverse effects

Other information

No other ecological studies have been carried out on this product.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Dispose of product in an approved chemical waste landfill or incinerate in accordance with applicable Federal, state and local regulations.

Contaminated packaging

Since empty containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

DOT

Not regulated

ICAO/IATA

Not regulated

IMDG

Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA (United States)

All ingredients are on the inventory or exempt from listing

Australia (AICS)

All ingredients are on the inventory or exempt from listing

Canada (DSL)

All ingredients are on the inventory or exempt from listing

Canada (NDSL)

None of the ingredients are on the inventory.

China (IECSC)

All ingredients are on the inventory or exempt from listing

EINECS (European Inventory of Existing Chemical Substances)

All ingredients are on the inventory or exempt from listing

ELINCS (European List of Notified Chemical Substances)

None of the ingredients are on the inventory.

ENCS (Japan)

All ingredients are on the inventory or exempt from listing

South Korea (KECL)

All ingredients are on the inventory or exempt from listing

Philippines (PICCS)

All ingredients are on the inventory or exempt from listing

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

AICS - Australian Inventory of Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

IECSC - China Inventory of Existing Chemical Substances

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

U.S. Federal Regulations

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic health hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive hazard	No

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Component	weight-%	SARA 313 - Threshold Values %
Aluminum oxide 1344-28-1	60 - 85%	1.0 % de minimis concentration (fibrous forms)

U.S. State Regulations**California Proposition 65**

Component	California Proposition 65
Titanium dioxide 13463-67-7	carcinogen, initial date 9/2/11 (airborne, unbound particles of respirable size)
Silica-crystalline, quartz 14808-60-7	carcinogen, initial date 10/1/88 (airborne particles of respirable size)

U.S. State Right-to-Know Regulations

Aluminum oxide 1344-28-1	
Massachusetts Right to Know Law	Present
Minnesota Hazardous Substance List	Present (dust)
New Jersey Right to Know List	sn 2891
Pennsylvania Right to Know List	Environmental hazard
Silica 7631-86-9	
Massachusetts Right to Know Law	Present (exempt when encapsulated or if particulates are not present and cannot be substantially generated through use of the product)
Minnesota Hazardous Substance List	Carcinogen
New Jersey Right to Know List	sn 1655 (fume)
Pennsylvania Right to Know List	Present
Iron oxide 1309-37-1	
Massachusetts Right to Know Law	Present (dust and fume); Present (listed under Rouge)
Minnesota Hazardous Substance List	Present (as Fe, fume); Present (dust, listed under Rouge)
New Jersey Right to Know List	sn 1036 (dust and fume)
Pennsylvania Right to Know List	Present
Titanium dioxide 13463-67-7	
Massachusetts Right to Know Law	Present
Minnesota Hazardous Substance List	Present (dust)
New Jersey Right to Know List	sn 1861
Pennsylvania Right to Know List	Present

16. OTHER INFORMATION

NFPA Rating	Health - 1	Flammability - 0	Instability - 0	Special Hazard -
HMIS Rating	Health - 1	Flammability - 0	Physical hazard - 0	Personal protection - B

Product code 3215N

Revision date 2015-05-16

Revision number 1

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet