



# Tabular Alumina

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 03/25/2017

Supersedes: 03/25/2015

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
Product name : Tabular Alumina  
Other means of identification :

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Refractory products

#### 1.3. Details of the supplier of the safety data sheet

FX Minerals  
257 Kennedy Park Marina Rd  
Newell, WV 26050  
(304) 387-1160

[lab@fxminerals.com](mailto:lab@fxminerals.com)

#### 1.4. Emergency telephone number

Emergency number : (304) 387-1160  
After 5PM weekdays, weekends and holidays: (412) 956-7578

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Not classified in GHS-US

#### 2.2. Label elements

##### GHS-US labelling

Hazard pictograms (GHS-US) : None

Signal word (GHS-US) : None

Hazard statements (GHS-US) : None

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P260 - Do not breathe dust  
P280 - Wear appropriate PPE  
P285 - In case of inadequate ventilation wear respiratory protection.  
P308 + P313 - If exposed or concerned: Get medical advice/attention  
P302 + P352 - IF ON SKIN: wash with plenty of water.  
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth  
P501 - Dispose of contents/container to comply with local/regional/national/international regulations  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

#### 2.3. Other hazards

Other hazards not contributing to the classification : Other constituents in this product are considered nuisance particles or dust. Exposure to dusts or powders may cause mechanical irritation of the respiratory system, eyes, and skin.

#### 2.4. Unknown acute toxicity (GHS-US)

99.3 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	%	GHS-US classification
Aluminum Oxide	(CAS No) 1344-28-1	> 99.0	Not classified

Full text of H-phrases: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- First-aid measures after inhalation : Immediate effects are not anticipated. If large amounts of dusts are inhaled, remove to fresh air. If breathing problems occur, a certified professional should administer oxygen or CPR if indicated. Seek immediate medical attention.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting.

#### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after skin contact : Direct contact may cause irritation, rash or dry skin. Rubbing may intensify symptoms and create abrasions.
- Symptoms/injuries after eye contact : Particulate matter may scratch the cornea or cause other mechanical injury to the eye. Scratching or physical damage to the eyes can cause irritation, redness, pain, tear formation, blurred vision, and light sensitivity.
- Symptoms/injuries after ingestion : Practically non-toxic. Ingestion is not anticipated under normal working conditions.
- Chronic symptoms : There are no potential chronic health effects to consider.

#### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Any. Use media appropriate for surrounding fire.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Not flammable.

Reactivity : Not reactive under normal use and conditions.

#### 5.3. Advice for firefighters

Protection during firefighting : Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide adequate protection.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area. Ensure adequate air ventilation.

##### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Stay upwind. Ventilate area.

#### 6.2. Environmental precautions

No special environmental precautions are required.

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### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Recover product and place into appropriate containers for disposal or recycling. Preferable Method is by using vacuum device, if available, otherwise by broom and shovel.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed :

Precautions for safe handling : Avoid dust inhalation and promulgation. DO NOT use compressed air or dry sweeping to remove dust from work area. Dusts should be removed using an appropriately equipped vacuum. If an appropriate vacuum is unavailable, only wet-clean-up methods should be used (i.e. wet sweeping, misting, etc.). Moisture should be added as necessary to reduce exposure to airborne respirable dust.

Hygiene measures : Practice good housekeeping. Wash thoroughly after handling. Change contaminated clothing. Do not reuse until laundered. Do not take silica contaminated clothing home.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Containers should be stored in room at ambient temperature and pressure. Keep container closed when not in use.

### 7.3. Specific end use(s)

Use of the substance/mixture : Refractory products

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Aluminum Oxide (1344-28-1)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (Total dust); 5 mg/m <sup>3</sup> (Respirable Fraction)

### 8.2. Exposure controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Enclosed processes used in combination with local exhaust ventilation as necessary to control air contaminants at or below acceptable exposure guidelines. Collection systems must be designed and maintained to prevent the accumulation and recirculation of respirable silica into the workplace.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : None required. Polymeric gloves are recommended to prevent irritation. Nitrile construction materials appear to offer the best protection against the ingredients of the product.

Eye protection : Chemical goggles or safety glasses.

Skin and body protection : Under dusty conditions or when excessive skin contact is likely, wear coveralls or other suitable work clothing.

Respiratory protection : Avoid inhaling the dust. In case of concentrations above the exposure limits, suitable Certified respirator must be worn.

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Hygiene Measure

Do not eat, drink or smoke when handling.

Environmental Exposure Controls

Avoid dust formation.

Ingredient comments: Dust contains respirable crystalline silica. Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness. Occupational exposure to respirable dust should be monitored and controlled. The product should be handled using methods and techniques that minimize or eliminate dust generation. The product contains less than 1% w/w RCS (respirable crystalline silica) as determined by XRD Methods (NIOSH 7500).

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### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Solid grains/powders
Appearance	: Powder.
Color	: White in Color
Odor	: No data available
Odor threshold	: No data available
pH	: 8-10
Density	: 3.4-3.9 g/cm <sup>3</sup>
Melting point	: >2050 °C (3700 °F)
Freezing point	: Not applicable
Boiling point	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapour density at 20 °C	: No data available
Solubility	: Insoluble. Water: Solubility in water of component(s) of the mixture
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: Not applicable

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Not reactive under normal use and conditions.

#### 10.2. Chemical stability

Stable at normal temperatures and pressure.

#### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

#### 10.4. Conditions to avoid

Avoid generating dust.

#### 10.5. Incompatible materials

Strong acids. Strong oxidizing agents.

#### 10.6. Hazardous decomposition products

Combustion may produce carbon monoxide and other harmful substances.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity	:
Oral	: LD50 => 5000 mg/kg/ bw
Dermal	: Conclusive but not sufficient for classification
Inhalation	: LC50 = 7.6 mg/l
Skin Corrosion	: Not Corrosive
Skin Irritation	: Not irritating

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Chronic Toxicity	:	
Irritation	:	Conclusive but not sufficient for classification
Corrosivity	:	Conclusive but not sufficient for classification
Sensitization	:	Conclusive but not sufficient for classification
Mutagenic Effects	:	Conclusive but not sufficient for classification
Carcinogenic Effects	:	Not classified as a human carcinogen – ACGIH-A4.
Reproduction Effects	:	Conclusive but not sufficient for classification
Developmental Effects	:	Conclusive but not sufficient for classification
Aspiration Hazards	:	Conclusive but not sufficient for classification

### SECTION 12: Ecological information

#### 12.1. Toxicity

Not expected to be toxic to quaitic organisms.

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

##### Alpha Star®

Bioaccumulative potential	This product is not expected to bioaccumulate.
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#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose of as inert solid in landfill. Dispose of waste material according to Local, State and Federal environmental regulations. Never discharge directly into sewers or surface waters. Slurry may plug drains.

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### SECTION 14: Transport information

In accordance with  
DOT Not regulated for  
transport

#### Additional information

Other information : No supplementary information available.

#### ADR

No additional information available

#### Transport by sea

No additional information available

#### Air transport

No additional information available

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

##### Tabular Alumina

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 15.2. International regulations

##### CANADA

No additional information available

##### EU-Regulations

No additional information available

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

##### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC

##### [DPD]

Not classified

##### 15.2.2. National regulations

#### 15.3. US State regulations

### SECTION 16: Other information

Revision date : 03/25/2017

#### HMIS III Rating

Health : 1 Slight Hazard - Irritation or minor reversible injury possible  
Flammability : 0 Minimal Hazard  
Physical : 0 Minimal Hazard  
Personal Protection : E

SDS US (GHS HazCom 2012)

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