



#### 4. First aid measures

##### First aid measures

<b>General advice</b>	If symptoms persist, call a physician.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
<b>Skin contact</b>	Wash off immediately with plenty of water.
<b>Inhalation</b>	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration.
<b>Ingestion</b>	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
<b>Self-protection of the first aider</b>	Use personal protective equipment as required.

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

**Symptoms** No known effects under normal use conditions.

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

**Note to physicians** Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

#### 5. Fire-fighting measures

##### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** No information available.

##### Specific hazards arising from the chemical

None in particular.

##### Explosion data

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

##### Protective equipment and precautions for firefighters

Use personal protective equipment as required.

#### 6. Accidental release measures

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

**Personal precautions** Ensure adequate ventilation, especially in confined areas. Avoid creating dust. Use personal protective equipment as required. Wash thoroughly after handling.

**For emergency responders** Use personal protective equipment as required.

**Environmental precautions** Collect spillage. Do not allow into any sewer, on the ground or into any body of water.

##### 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** Avoid creating dust. Sweep up and shovel into suitable containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## 7. Handling and Storage

### Precautions for safe handling

**Advice on safe handling** Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas. Avoid generation of dust. Wash thoroughly after handling.

### Conditions for safe storage, including any incompatibilities

**Storage conditions** Keep container tightly closed in a dry and well-ventilated place. Store at ambient conditions.

**Incompatible materials** Strong oxidizing agents. Strong acids.

## 8. Exposure Controls/Personal Protection

### Control parameters

#### Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Alumina 1344-28-1	TWA: 1 mg/m <sup>3</sup> respirable fraction	-	-

### Appropriate engineering controls

**Engineering controls** Ensure adequate ventilation, especially in confined areas.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Skin and body protection** Wear protective gloves and protective clothing.

**Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

<b>Physical state</b>	Solid	<b>Odor</b>	Characteristic
<b>Appearance</b>	Powder	<b>Odor threshold</b>	No information available
<b>Color</b>	White		

#### Property

<u>Property</u>	<u>Values</u>	<u>Remarks</u> •
pH		No information available
Melting point/freezing point		No information available
Boiling point / boiling range		No information available
Flash point		No information available
Evaporation rate		No information available
Flammability (solid, gas)		No information available
Flammability limit in air		
Upper flammability limit		No information available
Lower flammability limit		No information available
Vapor pressure		No information available
Vapor density		No information available
Specific gravity		No information available
Water solubility	Insoluble in water	
Solubility in other solvents		No information available
Partition coefficient		No information available
Autoignition temperature		No information available

<b>Decomposition temperature</b>	No information available
<b>Kinematic viscosity</b>	No information available
<b>Dynamic viscosity</b>	No information available
<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	No information available

**Other Information**

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	No information available

## 10. Stability and Reactivity

**Reactivity**

No data available

**Chemical stability**

Stable under normal conditions.

**Possibility of hazardous reactions**

None under normal processing.

<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.
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**Conditions to avoid**

None known.

**Incompatible materials**

Strong oxidizing agents. Strong acids.

**Hazardous decomposition products**

None under normal use conditions.

## 11. Toxicological Information

**Information on likely routes of exposure****Product information**

<b>Inhalation</b>	No data available.
<b>Eye contact</b>	No data available.
<b>Skin contact</b>	No data available.
<b>Ingestion</b>	No data available.

**Information on toxicological effects**

<b>Symptoms</b>	No information available.
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**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/eye irritation</b>	No information available.
<b>Irritation</b>	No information available.
<b>Corrosivity</b>	No information available.
<b>Sensitization</b>	No information available.

<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

## 12. Ecological Information

### Ecotoxicity

None known

### Persistence and degradability

No information available.

### Bioaccumulation

No information available.

### Other adverse effects

No information available

## 13. Disposal Considerations

### Waste treatment methods

<b>Disposal of wastes</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
<b>Contaminated packaging</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.

## 14. Transport Information

<b><u>DOT</u></b>	Not regulated
<b><u>ICAO (air)</u></b>	Not regulated
<b><u>IATA</u></b>	Not regulated
<b><u>IMDG</u></b>	Not regulated
<b><u>RID</u></b>	Not regulated
<b><u>ADR</u></b>	Not regulated

## 15. Regulatory information

### International inventories

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Not Determined
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Not Determined

### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### SARA 311/312 Hazard Categories

<b>Acute Health Hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

#### 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)

#### 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

### US State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals

#### U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

**16. Other information**

<u>NFPA</u>	Health Hazards 0	flammability 1	Instability 0	Physical and chemical properties - PERSONAL PROTECTION E
<u>HMIS</u>	Health Hazards 0	flammability 1	Physical Hazards 0	

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**Disclaimer**

The information provided in this Material 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**