

### SECTION 1: Identification

#### 1.1. GHS Product identifier

Product form	: Substance
Name	: Aluminium oxide
Substance type	: Mono-constituent
EC-No.	: 215-691-6
CAS-No.	: 1344-28-1
REACH registration No. (SDS)	: 01-2119529248-35
Formula	: Al <sub>2</sub> O <sub>3</sub>

#### 1.2. Other means of identification

Other means of identification	: AMB, APN, ATS, AFRZ, COPES, M4R, XMD01, P series, A4 series, AC series, AR series, C series, GA series, HC series, MC series, Rebal, PEX 2 XXX series, FLO series, DIGITa® series, TIMa®-series, SEPa® series, REa®series
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#### 1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture	: Feedstock for the manufacture of aluminium metal and various aluminium oxide based materials e.g. tabular alumina, fused alumina, bubble alumina, sintered alumina, Spinel, Mullite, calcium aluminate cement, beta-alumina, zirconia alumina. Manufacture of ceramics, tiles, porcelain, hotel-ware, refractories, abrasives, polishing and cleaning compounds, wear parts, brake linings, electrical insulating materials, spark plugs, fillers, toothpaste, cosmetics. Media for sand blasting and heat treatment. Filler for heat dissipation. Protection of electrodes and separators of rechargeable batteries. Spherical alumina
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#### 1.4. Supplier's details

Alteo Gardanne  
Route de Biver  
P.O. Box BP 20062  
13541 Gardanne  
France  
T +334 42 65 22 22  
[msds@alteo-alumina.com](mailto:msds@alteo-alumina.com)

#### 1.5. Emergency phone number

Emergency number	: +1 440-460-2600 / +1 800-321-3864 toll free (US) +81 3-6279-4610 (Asia)
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### SECTION 2: Hazard identification

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

##### Classification according to the United Nations GHS

Not classified

Adverse physicochemical, human health and environmental effects	: To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice
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#### 2.2. GHS Label elements, including precautionary statements

##### Labelling according to the United Nations GHS

No labelling applicable

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### 2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : Product dust may cause mechanical irritation to eyes, skin, nose and throat.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance type : Mono-constituent

Product identifiers: See section 1.1

Name	Product identifier	%	Classification according to the United Nations GHS
Aluminium oxide (Main constituent)	CAS-No.: 1344-28-1	> 98	Not classified

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of necessary first-aid measures

First-aid measures after inhalation : Move the affected person to the fresh air. If you feel unwell, seek medical advice.  
First-aid measures after skin contact : Wash skin thoroughly with mild soap and water. If irritation persists, consult a doctor.  
First-aid measures after eye contact : Rinse eyes with water as a precaution. If eye irritation persists: Get medical advice/attention.  
First-aid measures after ingestion : Rinse mouth out with water. Get medical advice and attention if you feel unwell.

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

Symptoms/effects after inhalation : Dust from this product may cause irritation to the respiratory tract. Cough.  
Symptoms/effects after skin contact : Dust from this product may cause skin irritation.  
Symptoms/effects after eye contact : Dust from this product may cause eye irritation. Redness.  
Potential adverse human health effects and symptoms : Dust from this product may cause irritation to the respiratory tract.

### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Suitable extinguishing media : Use extinguishing agent suitable for surrounding fire.  
Unsuitable extinguishing media : Do not use water jet.

### 5.2. Specific hazards arising from the chemical

Fire hazard : Presents no particular fire or explosion hazard.  
Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Special protective actions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Complete protective clothing. Self-contained breathing apparatus.

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### SECTION 6: Accidental release measures

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

Personal Precautions, Protective Equipment and Emergency Procedures : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

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

Emergency procedures : Do not attempt to take action without suitable protective equipment.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment.

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

Methods for cleaning up : Mechanically recover the product. Shovel into suitable and closed container for disposal.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid creating or spreading dust. Do not breathe dust. Wear personal protective equipment.

Hygiene measures : Always wash hands after handling the product. Do not eat, drink or smoke when using this product. Remove contaminated clothing and protective equipment before entering eating areas.

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

Storage conditions : Store in dry, well-ventilated area. Store at room temperature.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

#### 8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection : Wear suitable gloves. Breakthrough time : refer to the recommendations of the supplier

Eye protection : Where excessive dust may result, wear goggles

Skin and body protection : Not required for normal conditions of use

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

Personal protective equipment symbol(s)



#### 8.4. Exposure limit values for the other components

No additional information available

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### SECTION 9: Physical and chemical properties

#### 9.1. Basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder
Colour	: White.
Odour	: Odourless.
Odour threshold	: Not applicable
Melting point	: 2072 °C
Freezing point	: Not available
Boiling point	: 2977 °C
Flammability	: Not flammable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not applicable
pH	: Not applicable
pH solution	: Not available
Viscosity, kinematic (calculated value) (40 °C)	: Not applicable
Partition coefficient n-octanol/water (Log Pow)	: Not applicable
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not applicable
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: 3.97
Relative vapour density at 20°C	: Not applicable
Solubility	: Insoluble in: cold water, hot water.
Particle size	: Not available

#### 9.2. Data relevant with regard to physical hazard classes (supplemental)

Explosive properties	: Not explosive
Oxidising properties	: Non oxidizing

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

To our knowledge, the product does not present any particular risk, under normal conditions of use.

#### 10.2. Chemical stability

Stable under normal conditions of use.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

None to our knowledge.

#### 10.5. Incompatible materials

None to our knowledge.

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)  
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)  
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

Aluminium oxide (1344-28-1)	
LD50 oral rat	> 15900 mg/kg (OECD 401 method)
LC50 Inhalation - Rat (Dust/Mist)	> 888 mg/m <sup>3</sup> air (OECD 403 method)

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)  
Dust from this product may cause skin irritation  
pH: Not applicable

Aluminium oxide (1344-28-1)	
Additional information	Dust from this product may cause skin irritation

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)  
Dust from this product may cause eye irritation  
pH: Not applicable

Aluminium oxide (1344-28-1)	
Additional information	Dust from this product may cause eye irritation

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)  
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)  
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)  
Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)  
STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)  
STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)  
Aspiration hazard : Not classified (Technical impossibility to obtain the data)

Aluminium oxide (1344-28-1)	
Viscosity, kinematic	Not applicable

Potential adverse human health effects and symptoms : Dust from this product may cause irritation to the respiratory tract.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified (Based on available data, the classification criteria are not met)  
Hazardous to the aquatic environment, long-term (chronic) : Not classified (Based on available data, the classification criteria are not met)

#### 12.2. Persistence and degradability

Aluminium oxide (1344-28-1)	
Persistence and degradability	Not readily biodegradable.

#### 12.3. Bioaccumulative potential

Aluminium oxide (1344-28-1)	
Partition coefficient n-octanol/water (Log Kow)	Not applicable
Bioaccumulative potential	No additional information available

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### 12.4. Mobility in soil

#### Aluminium oxide (1344-28-1)

Mobility in soil	No additional information available
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### 12.5. Other adverse effects

Ozone : Not classified (Lack of data)  
Other adverse effects : No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Product/Packaging disposal recommendations : Recover or recycle if possible. Dispose of in accordance with relevant local regulations.

## SECTION 14: Transport information

In accordance with RTMD ONU / IMDG / IATA

UN RTDG	IMDG	IATA
<b>14.1. UN number</b>		
Not regulated for transport		
<b>14.2. UN Proper Shipping Name</b>		
Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>		
Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>		
Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>		
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No

### 14.6. Special precautions for user

#### UN RTDG

No data available

#### IMDG

No data available

#### IATA

No data available

### 14.7. Transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

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### SECTION 16: Other information

Issue date : 7/17/2023

#### Indication of changes:

This sheet was updated (refer to the date at the top of this page). (SDS changed sections : 1).

Abbreviations and acronyms : IATA - International Air Transport Association  
IMDG - International Maritime Dangerous Goods  
LC50 - Median lethal concentration  
LD50 - Median lethal dose  
OECD - Organisation for Economic Co-operation and Development  
UN RTDG - United Nations Recommendations on the Transport of Dangerous Goods

Safety Data Sheet (SDS), UN

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.