



SAFETY DATA SHEET

1. Identification

Product identifier	HYDRATED ALUMINAS (GROUND AND UNGROUND)
Other means of identification	
SDS number	839
Version No.	06
Revision date	November 21, 2017.
Synonym(s)	Alumina Trihydrate, Aluminum Trihydroxide ATH Series, Bayer Hydrated Alumina, C-30, KB-30, KC-30.
Recommended use	Industrial use, further processing into a number of articles/products, aluminium oxide production
Recommended restrictions	For industrial use only.
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer	Alcoa World Alumina LLC 201 Isabella Street Pittsburgh, PA 15212-5858 US Health and Safety E-mail: SDSInfo@alcoa.com Health and Safety Tel: 1-412-992-5499 Health and Safety Fax: 1-866-560-0431

Emergency Information	CHEMTREC: +1-703-527-3887 +1-800-424-9300 (24 Hour Emergency Telephone, multiple languages spoken); ALCOA: +1-812-853-1111 (24 Hour Emergency Telephone, only English spoken) CANADA: Canutec: +1-613-996-6666 ALCOA +1-812-853-1111
Website	For a current Safety Data Sheet, refer to Alcoa websites: www.alcoa.com or internally at my.alcoa.com EHS Community

2. Hazard(s) identification

Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazards	Hazardous to the ozone layer Not applicable

Potential health effects

The following statements summarize the health effects generally expected in cases of overexposures. User specific situations should be assessed by a qualified individual. Additional health information can be found in Section 11.

Label elements

Hazard symbol	None.
Signal word	None.
Hazard statement	The substance does not meet the criteria for classification.
Precautionary statement	
Prevention	Not applicable.
Response	Not applicable.
Storage	Keep dry.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Other hazards	None known.
Supplemental Information	None.
Specific hazards	Non-combustible. Can cause mild irritation of eyes, skin and upper respiratory tract. Heating the material above 200°C will result in a sudden release of water vapor (steam).

3. Composition/information on ingredients

Composition comments Complete composition is provided below and may include some components classified as non-hazardous.

Components	CAS #	Percent
Aluminium hydroxide	21645-51-2	99.5

4. First-aid measures

Eye contact	Rinse eyes with plenty of water or saline for at least 15 minutes. Get medical attention.
Skin contact	Wash off with warm water and soap. Get medical attention if irritation develops or persists.
Inhalation	Remove to fresh air. Check for clear airway, breathing, and presence of pulse. If breathing is difficult, provide oxygen. Loosen any tight clothing on neck or chest. Provide cardiopulmonary resuscitation for persons without pulse or respirations. Consult a physician.
Ingestion	If swallowed, dilute by drinking water. Recommend quantities up to 30 mL (~1 oz.) in children and 250 mL (~9 oz.) in adults. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do NOT induce vomiting. Consult a physician.
Most important symptoms/effects, acute and delayed	Mild eye irritation. Mild skin irritation. Upper respiratory tract irritation.
Medical conditions aggravated by exposure	Asthma, chronic lung disease and skin rashes.
Indication of immediate medical attention and special treatment needed	If breathing is difficult, give oxygen.

5. Fire-fighting measures

Suitable extinguishing media	Use fire fighting methods and materials that are appropriate for surrounding fire.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	Heating the material above 200°C will result in a sudden release of water vapor (steam).
Hazardous combustion products	No hazardous decomposition products are known.
Special protective equipment and precautions for firefighters	Firefighters should wear CE approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.
Fire fighting equipment/instructions	No specific fire fighting procedure given. Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Non-combustible.
Explosion data	
Sensitivity to mechanical impact	Not applicable.
Sensitivity to static discharge	Not applicable.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Avoid generating dust. Avoid contact with skin and eyes. Ensure adequate ventilation. Use personal protection recommended in Section 8 of the SDS.
Personal precautions, protective equipment and emergency procedures	
For emergency responders	Avoid generating dust. Avoid contact with skin and eyes. Ensure adequate ventilation. Use personal protection recommended in Section 8 of the SDS.
Evacuation procedures	None necessary.
Methods and materials for containment and cleaning up	Return to containers using shovels, buckets or brooms. Clean up in accordance with all applicable regulations.
Environmental precautions	No special environmental precautions required.

7. Handling and storage

Handling

Avoid generating dust. Avoid contact with skin and eyes. Use with adequate ventilation. Use personal protection recommended in Section 8 of the SDS.

Storage

Keep material dry.

8. Exposure controls/personal protection

Occupational exposure limits

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Material	Type	Value	Form
HYDRATED ALUMINAS (GROUND AND UNGROUND)	TWA	1 mg/m3	Respirable fraction.

Canada. Quebec OELs. (Ministry of Labour - Regulation Respecting the Quality of the Work Environment)

Material	Type	Value	Form
HYDRATED ALUMINAS (GROUND AND UNGROUND)	TWA	10 mg/m3	Total dust.

Components	Type	Value	Form
Aluminium hydroxide (CAS 21645-51-2)	TWA	10 mg/m3	Total dust.

Alcoa Material	Type	Value	Form
HYDRATED ALUMINAS (GROUND AND UNGROUND)	TWA	3 mg/m3	Respirable fraction

Components	Type	Value	Form
Aluminium hydroxide (CAS 21645-51-2)	TWA	3 mg/m3	Respirable fraction
		10 mg/m3	Inhalable fraction

US ACGIH Threshold Limit Values: Time Weighted Average (TWA): mg/m3, non-standard units

Material	Type	Value	Form
HYDRATED ALUMINAS (GROUND AND UNGROUND)	TWA	1 mg/m3	Respirable fraction.

Components	Type	Value	Form
Aluminium hydroxide (CAS 21645-51-2)	TWA	1 mg/m3	Respirable fraction.

Engineering controls

Use with adequate ventilation to meet the limits listed in Section 8.

Personal protective equipment

Eye / face protection

Wear safety glasses with side shields. Use tight fitting goggles if excessive levels of dust are generated.

Hand protection

Wear appropriate gloves to avoid any skin injury.

Skin and body protection

The need for personal protective equipment should be based upon a hazard assessment and recommendations from health / safety professionals.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Use CE-approved respiratory protection as specified by an Industrial Hygienist or other qualified professional. Suitable respiratory protective device recommended: P2.

General

The need for personal protective equipment should be based upon a hazard assessment and recommendations from health / safety professionals.

Personal protective equipment

Thermal hazards

Not applicable.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practices. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

Recommended monitoring procedures	Follow standard monitoring procedures.
Environmental exposure controls	Not available.

9. Physical and chemical properties

Form	Solid, powder, crystalline.
Colour	Off-white.
Odour	Odourless
Odour threshold	Not applicable
Density	2.42 g/cm ³
Bulk density	0.15 - 1.3
pH	8.5 - 10.2 (20% slurry in water)
Melting point/freezing point	Decomposes before melting. / Not determined
Initial boiling point and boiling range	Not applicable
Flash point	Not applicable
Evaporation rate	Not applicable
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - upper (%)	Not applicable
Flammability limit - lower (%)	Not applicable
Explosive properties	Not applicable.
Vapour pressure	Not applicable
Vapour density	Not applicable
Relative density	Not determined
Solubility(ies)	Insoluble
Partition coefficient (n-octanol/water)	Not applicable.
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available.
Viscosity	Not applicable

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable under normal conditions of use, storage, and transportation.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.
Conditions to avoid	Heating the material above 200°C will result in a sudden release of water vapor (steam). Precautions must be taken to dissipate the vapor and any pressure that may be generated. A sudden increase in pressure could cause damage or explosion in enclosed equipment.
Incompatible materials	None known.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

General information	Not available.
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Health effects associated with ingredients

Aluminium hydroxide: Low health risk by inhalation. Generally considered to be biologically inert.

Health effects associated with compounds formed during processing

No new/additional compounds are expected to be formed during processing.

Information on likely routes of exposure

Inhalation	Can cause mild irritation of the upper respiratory tract.
Skin contact	Can cause mild irritation.
Eye contact	Can cause mild irritation.
Ingestion	Can cause mild irritation.

Symptoms related to the physical, chemical and toxicological characteristics Mild skin irritation Mild eye irritation Upper respiratory tract irritation.

Information on toxicological effects

Acute toxicity Not classified. Based on available data, the classification criteria are not met.

Product	Species	Test results
HYDRATED ALUMINAS (GROUND AND UNGROUND)		

Acute**Oral**

LD50	Rat	> 5000 mg/kg
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Skin corrosion/irritation Not classified. Non-corrosive.

Serious eye damage/eye irritation Not classified. May cause minor irritation on eye contact.

Respiratory or skin sensitisation No sensitization responses were observed.

Respiratory sensitisation Not classified. Based on available data, the classification criteria are not met.

Skin sensitisation Not classified. May cause minor irritation on skin contact.

Germ cell mutagenicity Not classified. Contains no ingredient listed as a mutagen.

Carcinogenicity Not classified. Contains no ingredient listed as a carcinogen

ACGIH Carcinogens

Aluminium hydroxide (CAS 21645-51-2)	A4 Not classifiable as a human carcinogen.
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Reproductive toxicity Not classified. Contains no ingredient listed as toxic to reproduction.

Specific target organ toxicity - single exposure Not classified. Based on available data, the classification criteria are not met.

Specific target organ toxicity - repeated exposure Not classified. Based on available data, the classification criteria are not met.

Aspiration hazard Not applicable.

Further information None known.

12. Ecological information

Ecotoxicity This material is not expected to be harmful to aquatic life.

Persistence and degradability The product contains inorganic compounds which are not biodegradable.

Bioaccumulative potential The product is not bioaccumulating.

Mobility in soil Not considered mobile.

Mobility in general Not applicable.

Other adverse effects None known.

13. Disposal considerations

Disposal instructions Reuse or recycle material whenever possible. If reuse or recycling is not possible, disposal must be made according to local or governmental regulations.

Waste codes RCRA Status: Not federally regulated in the U.S. if disposed of "as is."

Waste from residues / unused products Dispose of in accordance with local regulations.

Contaminated packaging Dispose of in accordance with local regulations.

14. Transport information

General Shipping Information

Basic Shipping Information

ID number	-
Proper shipping name	Not regulated
Hazard class	-
Packing group	-

General Shipping Notes

- When "Not regulated", enter the proper freight classification, SDS Number and Product Name onto the shipping paperwork.

IMSBC Code

Not regulated as dangerous goods.

IMSBC Code Notes:

- Classification applies to international vessel transport of Alumina Hydrate as bulk cargo (may not apply to domestic only shipments-check local regulations). The Bulk Cargo Shipping Name (BCSN) is provided above.
- Per the IMSBC code, Alumina Hydrate for bulk transport by vessel is classed as a MHB in Group A and B. Hazards indicated by the IMSBC code: This cargo may liquefy if shipped at moisture content in excess of its Transportable Moisture Limit (TML). Alumina Hydrate dust is very abrasive and penetrating. Irritating to eyes, skin and mucous membranes. This cargo is non-combustible or has low fire risks.
- Alumina Hydrate is NOT classified as Harmful to the Marine Environment (HME).

Disclaimer

This section provides basic classification information and, where relevant, information with respect to specific modal regulations, environmental hazards and special precautions. Otherwise, it is presumed that the information is not available/not relevant

15. Regulatory information

Canadian regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

SDS Status:

November 21, 2017: Change(s) in Section: 1.
October 30, 2015: Change(s) in Section: 1 and 16.
December 23, 2014: Change(s) in Section: 1, 2, 3, 5, 8, 11, 12, 15 and 16.
June 2, 2011: Change(s) in Section: 1 (EU versions only).
January 19, 2011: New format.
October 7, 2008: New format.
March 15, 2003: Reviewed on a periodic basis in accordance with Alcoa policy. Change(s) in Section: 1, 2, 3, 4, 8, 10 and 13.
Origination date: March 15, 2003
Hazardous Materials Control Committee
Preparer: France Fiset, +1-418-286-5257.
SDS System Number: 134231

Revision date November 21, 2017.

Prepared by France Fiset
Preparer: +1-418-286-5257.

SDS System Number 134231

Version No. 06

Revision information Product and Company Identification: Synonyms
Transport Information: Agency Name, Packaging Type, and Transport Mode Selection
Other information, including date of preparation or last revision: Prepared by
GHS: Classification

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available.

Other information

- Guide to Occupational Exposure Values 2015, Compiled by the American Conference of Governmental Industrial Hygienists (ACGIH).
- NIOSH Pocket Guide to Chemical Hazards, U.S. Department of Health and Human Services, September 2005.
- expub, Expert Publishing, LLC., www.expub.com,
- Ariel, 3E Company, www.3Ecompany.com

Key/Legend:

ACGIH American Conference of Governmental Industrial Hygienists
AICS Australian Inventory of Chemical Substances
CAS Chemical Abstract Services
CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
CFR Code of Federal Regulations
CPR Cardio-pulmonary Resuscitation
DOT Department of Transportation
DSL Domestic Substances List (Canada)
EC Effective Concentration
ED Effective Dose
EINECS European Inventory of Existing Commercial Chemical Substances
ENCS Japan - Existing and New Chemical Substances
EWC European Waste Catalogue
EPA Environmental Protective Agency
IARC International Agency for Research on Cancer
LC Lethal Concentration
LD Lethal Dose
MAK Maximum Workplace Concentration (Germany) "maximale Arbeitsplatz-Konzentration"
NDSL Non-Domestic Substances List (Canada)
NIOSH National Institute for Occupational Safety and Health
NTP National Toxicology Program
OEL Occupational Exposure Limit
OSHA Occupational Safety and Health Administration
PIN Product Identification Number
PMCC Pensky Marten Closed Cup
RCRA Resource Conservation and Recovery Act
SARA Superfund Amendments and Reauthorization Act
SIMDUT Système d'Information sur les Matières Dangereuses Utilisées au Travail
STEL Short Term Exposure Limit
TCLP Toxic Chemicals Leachate Program
TDG Transportation of Dangerous Goods
TLV Threshold Limit Value
TSCA Toxic Substances Control Act
TWA Time Weighted Average
WHMIS Workplace Hazardous Materials Information System
m metre, cm centimetre, mm millimetre, in inch,
g gram, kg kilogram, lb pound, µg microgram,
ppm parts per million, ft feet

*** End of SDS ***

Precautionary statement**Prevention**

Not applicable.

Response

Not applicable.

Storage

Keep dry.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

None.**Supplemental information**

Non-combustible. Can cause mild irritation of eyes, skin and upper respiratory tract.

Heating the material above 200°C will result in a sudden release of water vapor (steam).

FIRE FIGHTING MEASURES: Use fire fighting methods and materials that are appropriate for surrounding fire.

IN CASE OF SPILL: Return to containers using shovels, buckets or brooms.

See Alcoa SDS Number 0839.

NOTICE: Product labels must be attached as to appear as a group of information elements in two unilingual parts that constitute one bilingual label.



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Alcoa Health and Safety Email: SDSInfo@alcoa.com Tel: +1-412-992-5499 and Fax: +1-866-560-0431