

# Material Safety Data Sheet

acc. to 91/155/EEC

Printing date 12/26/2002

Reviewed on 12/26/2002

## \* 1 Chemical Product and Company Identification

- **Product Name: Hydrated Aluminas** 839  
(Ground and unground)
- **Other Designations:**  
Aluminum Trihydroxide ATH Series, Bayer Hydrated Alumina, Bayerite, BayGranite(R) Series, Bayer Scale Fines, C-230, C-231, C-30, C-33/31, C-31C, C-37G, C-333/331, C-40, C-430, C-431, C-530, C-531, C-DPS-1, C-NEV-1, Coated ATH, CHSO-1, CV-3002, CV-3003, CV-3004, Flame Gard(R) Series, HC-1, HS-1, Hydral(R) Series, Hydral(R) 705, Hydral(R) 707, Hydral(R) 710, Hydral(R) 716, Hydral(R) 719, HyBrite(TM) 100, Hydral(R) Coat 2, Hydral(R) Coat 5, Hydral(R) Coat 7, Hydral(R) PGA, Hydral(R) PGA SD, Hydrate 17LVB, Hydrogard CP, Hydrogard GP, Hydrogard CSP, KB Series, KC30, KH30, MH-1, MH-2, MHC, Onyx Classica(R) Series, P-3, P-5, P-7, SpaceRite(R) Series, SRP-A-11, SRP-A-12, SRP-A-13, SRP-A-14, SRP-A-17, SRP-A-18 and SRP-A-89E.  
(R) Registered Trademark of Alcoa World Alumina LLC  
(TM) Trademark of Alcoa World Alumina LLC
- **Application of the substance / the preparation**  
Fire retarding agent  
Coating
- **Manufacturer/Supplier:**  
Alcoa World Alumina LLC  
201 Isabella Street  
Pittsburgh, PA 15212-5858 USA  
Health & Safety: +1-412-553-4649
- **Emergency Information:** USA: Chemtrec: +1-703-527-3887 +1-800-424-9300 ALCOA: +1-412-553-4001

## \* 2 Composition/Data on components:

CAS No:	Component	
21645-51-2	Aluminum trihydroxide	99.5%
· <b>Additional information:</b> Loss on ignition		34-35 %

## \* 3 Hazards identification

- **EMERGENCY OVERVIEW:**
- **EYES:** Can cause mild irritation.
- **SKIN:** Can cause mild irritation.
- **INHALATION:** Can cause mild upper respiratory tract irritation.
- **INGESTION:** Can cause mild irritation.
- **Chemical ingredient and possible processing hazards:**  
Aluminum trihydroxide: Low health risk by inhalation.
- **Hazard description:**
- **Medical conditions aggravated by exposure to the product:**  
Asthma, chronic lung disease, and skin rashes.
- **Information pertaining to particular dangers for man and environment** See item 11.
- **Classification system**  
The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

(Contd. on page 2)

USA

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(Contd. from page 1)

## \* 4 First aid measures

### · After inhalation

Remove to fresh air.

Check for clear airway, breathing, and presence of pulse.

Provide cardiopulmonary resuscitation for persons without pulse or respirations.

Consult a physician.

### · After skin contact

Wash with soap and water for at least 15 minutes.

Consult a physician if irritation persists.

### · After eye contact

Flush eyes with plenty of water for at least 15 minutes.

Consult a physician.

### · After swallowing

Do not induce vomiting.

Never give anything by mouth to a convulsing or unconscious person.

If swallowed, dilute by drinking large amounts of water.

Consult a physician.

## \* 5 Fire fighting measures

· **Suitable extinguishing agents** Use fire fighting measures that suit the environment.

· **Protective equipment:**

Fire fighters should wear NIOSH approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

## \* 6 Accidental release measures

· **Person-related safety precautions:**



Wear protective clothing.

· **Measures for environmental protection:** No special measures required.

· **Measures for cleaning/collecting:** Clean up using dry procedures; avoid dusting.

## \* 7 Handling and storage

### · Handling

#### · **Information for safe handling:**

Avoid generating dust.

Provide adequate ventilation if dust is formed.

· **Information about protection against explosions and fires:** No special measures required.

### · Storage

· **Requirements to be met by storerooms and receptacles:** Keep material dry.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:** None.

(Contd. on page 3)

USA

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(Contd. from page 2)

## \* 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Personal protective equipment**
- **General protective and hygienic measures**  
Avoid contact with the eyes.  
Do not inhale dust.
- **Breathing equipment:**  
Use suitable respiratory protection in case of insufficient ventilation.  
Suitable respiratory protective device recommended:  
Filter NIOSH N95.
- **Protection of hands:** Wear appropriate gloves to avoid any skin injury.
- **Material of gloves** Strong gloves
- **Penetration time of glove material** Not applicable
- **Eye protection:** Safety glasses with full side shields or goggles recommended.

## \* 9 Physical and chemical properties:

· <b>General Information</b>	
<b>Form:</b>	Crystalline powder
<b>Color:</b>	White Off-white
<b>Odor:</b>	Odorless
· <b>Change in condition</b>	
<b>Melting point/Melting range:</b>	Decomposes before melting.
<b>Boiling point/Boiling range:</b>	Not applicable
· <b>Flash point:</b>	Not applicable
· <b>Auto igniting:</b>	Product is not self igniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard. (See Section 10).
· <b>Density at 20°C (68°F):</b>	2.42 g/cm <sup>3</sup> 0.087 lb/in <sup>3</sup>
· <b>Bulk density at 20°C (68°F):</b>	0.15-1.3 g/cm <sup>3</sup> 9.4-80 lb/ft <sup>3</sup>
· <b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Insoluble
· <b>pH-value at 20°C (68°F):</b>	8.5-10.2 (20% in H <sub>2</sub> O)
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
· <b>Solids content:</b>	100 %

(Contd. on page 4)

USA

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*(Contd. from page 3)*

**\* 10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Reactions:**  
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.
- **Dangerous products of decomposition:**  
Coated ATH:  
Carbon monoxide and carbon dioxide  
Formaldehyde
- **Additional information:** Non-corrosive.

**\* 11 Toxicological information**

- **Acute toxicity:**
- **Primary irritant effect:**
- **On the skin:** Can cause mild irritation.
- **On the eye:** Can cause mild irritation.
- **Inhalation:** Can cause mild upper respiratory tract irritation.
- **Ingestion:** Can cause mild irritation.

**\* 12 Ecological information:**

- **General notes:** Not known to be hazardous to water.

**\* 13 Disposal considerations**

- **Product:**
- **Recommendation** If reuse or recycling is not possible, material may be disposed of at an industrial landfill.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to local or governmental regulations.

**\* 14 Transport information**

<ul style="list-style-type: none"> <li>· <b>DOT regulations:</b></li> <li>· <b>Hazard class:</b> -</li> <li>· <b>Remarks:</b> U.S.A. DOT: Not regulated - Enter the proper freight classification. "MSDS Number," and "Product Name" on the shipping paperwork.  Canadian TDG Hazard Class &amp; PIN: Not regulated.</li> </ul>
<ul style="list-style-type: none"> <li>· <b>Land transport ADR/RID (cross-border)</b></li> <li>· <b>ADR/RID class:</b> -</li> <li>· <b>Remarks:</b> Not regulated</li> </ul>
<ul style="list-style-type: none"> <li>· <b>Maritime transport IMDG:</b></li> <li>· <b>IMDG Class:</b> -</li> <li>· <b>Marine pollutant:</b> No</li> <li>· <b>Remarks:</b> Not regulated</li> </ul>

*(Contd. on page 5)*

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(Contd. from page 4)

- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -
- **Remarks:** Not regulated

## \* 15 Regulations

- **U.S. Federal Regulations:**
- **TSCA STATUS:** All components of this product are listed on the TSCA inventory.
- **CERCLA REPORTABLE QUANTITY:** None.
- **SARA TITLE III:**
- **Section 302 Extremely Hazardous Substances:** None.
- **Section 311/312 Hazardous Categories:** None.
- **Section 313 Toxic Categories:** None.
- **OTHER INFORMATION:**  
In reference to Title VI of the Clean Air Act of 1990, this material does not contain nor was it manufactured using ozone-depleting chemicals.
- **International Regulations:**
- **CANADIAN DOMESTIC SUBSTANCES LIST:** All components of this product are listed on the Canadian DSL.
- **AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES:**  
All components of this product are listed on the AICS.
- **Japan - Existing and New Chemical Substances (ENCS)**  
All components of this product are listed on ENCS.

## \* 16 Other information:

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:**  
Hazardous Materials Control Committee  
Preparer: Jon N. Peace, +1-412-553-2293  
Alcoa Inc., 201 Isabella Street, Pittsburgh, PA 15212-5858 USA  
26.12.02 Supersedes 29.03.01
- **Alcoa MS #:** 134231
- **Appendix:**
  - Guide to Occupational Exposure Values 2002, Compiled by the American Conference of Governmental Industrial Hygienists (ACGIH).
  - Documentation of the Threshold Limit Values and Biological Exposure Indices, Sixth Edition, 1991, Compiled by the American Conference of Governmental Industrial Hygienists, Inc. (ACGIH).
  - NIOSH Pocket Guide to Chemical Hazards, U.S. Department of Health and Human Services, June 1994.
  - Dangerous Properties of Industrial Materials, Sax, N. Irving, Van Nostrand Reinhold Co., Inc., 1984.
  - Patty's Industrial Hygiene and Toxicology: Volume II: Toxicology, 4th ed., 1994, Patty, F. A.; edited by Clayton, G. D. and Clayton, F. E.: New York: John Wiley & Sons, Inc.
  - TOMES CPS(TM), MICROMEDEX, Inc., 2001

(Contd. on page 6)

USA

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(Contd. from page 5)

**· 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)
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
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
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 meter, cm centimeter, mm millimeter, in inch,  
g gram, kg kilogram, lb pound, µg microgram,  
ppm parts per million, ft feet

**· \* Data compared to the previous version altered.**

USA

# HYDRATED ALUMINAS



# CAUTION

**Hazards:** Can cause mild irritation of eyes, skin, and upper respiratory tract.

**Precautions:** Avoid generating dust. Use with adequate ventilation.

Use appropriate personal protective equipment (safety glasses/gloves) to avoid injury. Use appropriate respiratory protection (N95) in case of insufficient ventilation.

**Fire Fighting:** Product is not flammable. Use fire fighting measures that suit the environment.

**First Aid:** EYES: Flush eyes with plenty of water for at least 15 minutes. Consult a physician. SKIN: Wash with soap and water for at least 15 minutes. Consult a physician if irritation persists. INHALATION: Remove to fresh air. Check for clear airway, breathing, and presence of pulse. Provide CPR for persons without pulse or respirations. Consult a physician. INGESTION: If swallowed, dilute by drinking large amounts of water. Never give anything by mouth to a convulsing or unconscious person. Do **not** induce vomiting. Consult a physician.

**Accidental Release:** Clean up using dry procedures; avoid dusting. Pick up mechanically.

See Alcoa Material Safety Data Sheet No. 839 for more information about use and disposal.

Emergency Phone: (412) 553-4001.

INGREDIENTS:                      CAS NUMBERS:  
Aluminum trihydroxide      (21645-51-2)

## Alcoa World Alumina LLC

201 Isabella Street, Pittsburgh, PA 15212-5858 USA

12/02 839



# FLAME GARD®



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