

**Material Safety Data Sheet**  
acc. to 91/155/EEC

Printing date 01/10/2000

Reviewed on 01/10/2000

\* **1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

• **Product Name: Activated Aluminas** **149**

• **Other Designations:**

Active bed supports, CG-20, CPA series, CPN, CSS series, DD-2, DD-410, DD-420, DD-422, DD-431, DD-440, DD-450, DD-460, DD-470, DD-6, DD-PG, F-200, HF-200, HPX, LD-5, LD-350, PSD-350, RC-400, RF-200, S-100, S-400, S-431, SRU and TG-431.

• **Manufacturer/Supplier:**

Alcoa Inc.  
201 Isabella Street  
Pittsburgh, PA 15212-5858 USA  
Health & Safety: +1-412-553-4649

Alcoa World Alumina LLC

109 Highway 131  
Vidalia, LA 71373  
Tel: +1-318-336-9601  
+1-800-533-4511

3502 South Riverview Drive  
Port Allen, LA 70767  
Tel. +1-504-389-9945

• **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**

1333-84-2 Aluminum oxide (non fibrous)	<97 %
EINECS: 215-691-6	

• **Additional information:**

Loss on ignition	4.0-7.0 %
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\*1333-84-2 (See Section 15)

\* **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:**

Alumina is a low health risk by inhalation and should be treated as a nuisance dust as specified by the ACGIH.

• **Hazard description:**

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- **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.

\* **4 First aid measures**

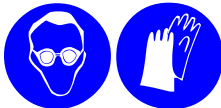
- **After inhalation**  
Remove to fresh air.  
Check for clear airway, breathing, and presence of pulse.  
Provide cardiopulmonary resuscitation for persons without pulse or respirations.  
Consult a physician.
- **After skin contact**  
Wash with soap and water for at least 15 minutes.  
Consult a physician.
- **After eye contact**  
Immediately 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:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.

\* **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.
- **Additional information:** No dangerous substances are released.

\* **7 Handling and storage**

- **Handling**
- **Information for safe handling:**  
Ensure good ventilation/exhaust at the workplace.  
Prevent formation of dust.  
Provide suction extractors if dust is formed.

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- **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.

\* **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:**

1333-84-2 Aluminum oxide (non fibrous)  
OSHA: 15 total, 5 respirable mg/m<sup>3</sup>  
TLV: 10 mg/m<sup>3</sup>

- **Personal protective equipment**
- **General protective and hygienic measures**  
Do not inhale dust.  
Avoid contact with the eyes.
- **Breathing equipment:**  
Use suitable respiratory protective device in case of insufficient ventilation.  
Short term filter device:  
Filter NIOSH N95.
- **Protection of hands:** Impervious gloves.
- **Eye protection:** Safety glasses.

\* **9 Physical and chemical properties:**

- **Form:**  
Crystalline powder  
Gelatinous  
Balls  
Granules  
Pellets
- **Color:** Whitish
- **Odor:** Characteristic

• **Change in condition**

- **Melting point/Melting range:**  
3700 ° F

- **Boiling point/Boiling range:**

- **Flash point:**

- **Auto igniting:**

• **Danger of explosion:**

Product does not present an explosion hazard.

- **Density:** at 20 ° C 0.62-0.83 g/cm<sup>3</sup>  
0.022-0.030 lb/in<sup>3</sup>

	<u>Value/Range</u>	<u>Unit</u>	<u>Method</u>
Melting point/Melting range:	2038	° C	
Boiling point/Boiling range:	Undetermined		
Flash point:	Not applicable		
Auto igniting:	Product is not self igniting.		

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<ul style="list-style-type: none"> <li>• <b>Solubility in / Miscibility with</b></li> <li>• <b>Water:</b> Insoluble</li> <li>• <b>pH-value:</b> at 20 ° C 9.4-10.1 10% in water</li> </ul>	
<b>10 <u>Stability and reactivity</u></b>	
<ul style="list-style-type: none"> <li>• <b>Thermal decomposition / conditions to be avoided:</b> No decomposition if used according to specifications.</li> <li>• <b>Dangerous reactions:</b> Heating occurs when water is added.</li> <li>• <b>Dangerous products of decomposition:</b> No dangerous decomposition products known.</li> <li>• <b>Additional information:</b> Non-corrosive.</li> </ul>	
<b>* 11 <u>Toxicological information</u></b>	
<ul style="list-style-type: none"> <li>• <b>Primary irritant effect:</b></li> <li>• <b>On the skin:</b> Can cause mild irritation.</li> <li>• <b>On the eye:</b> Can cause mild irritation.</li> <li>• <b>Inhalation:</b> Can cause mild upper respiratory tract irritation.</li> <li>• <b>Ingestion:</b> Can cause mild irritation.</li> <li>• <b>Additional toxicological information:</b> The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:</li> </ul>	
<b>12 <u>Ecological information:</u></b>	
<ul style="list-style-type: none"> <li>• <b>General notes:</b> Generally not hazardous for water.</li> </ul>	
<b>* 13 <u>Disposal considerations</u></b>	
<ul style="list-style-type: none"> <li>• <b>Product:</b></li> <li>• <b>Recommendation</b> Collect in containers, bags, or covered dumpster boxes. If reuse or recycling is not possible, material may be disposed of at an industrial landfill.</li> <li>• <b>European Community Waste disposal key:</b> 16 03 01</li> <li>• <b>Uncleaned packagings:</b></li> <li>• <b>Recommendation:</b> Disposal must be made according to official regulations.</li> </ul>	
<b>* 14 <u>Transport information</u></b>	
<ul style="list-style-type: none"> <li>• <b>DOT regulations:</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> <li>• <b>Maritime transport IMDG:</b></li> <li>• <b>Marine pollutant:</b> No</li> </ul>	

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**Product Name: Activated Aluminas****149**\* **15 Regulations**

- **U.S. Federal Regulations:**
- **TSCA STATUS:**  
All components of this product are listed on the TSCA inventory.  
\*For TSCA inventory reporting purposes, CAS No. 1344-28-1 was assigned for all forms of aluminum oxide instead of the CAS No. 1333-84-2 as indicated in Section 2.
- **CERCLA REPORTABLE QUANTITY:** None.
- **SARA TITLE III:**  
**Section 302 Extremely Hazardous Substances:**  
None.
- **Section 311/312 Hazardous Categories:** Immediate (acute).
- **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.
- **Markings according to EU guidelines:**  
Observe the general safety regulations when handling chemicals.  
The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (GefStoffV).
- **National regulations**
- **Water hazard class:** Generally not hazardous for water.
- **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  
Alcoa Inc., 201 Isabella Street, Pittsburgh, PA 15212-5858 USA  
10.01.00 Supersedes 15.01.99
- **Alcoa MS #:** 103396
- **Appendix:**
  - Guide to Occupational Exposure Values 1999, 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.

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- 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., 1999

- **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

m meter, cm centimeter, mm millimeter, in inch,  
g gram, kg kilogram, lb pound, µg microgram,  
ppm parts per million, ft feet

USA