

Material Safety Data Sheet

Common Name Alumina Hydrate **Date** 1985-02-01 **Revised** 1985-05-0

Hazardous Material (as Defined in 29 CFR 1910.1200)

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|--------------------------------------|---|---|-------------------------------------|--|
| <input type="checkbox"/> Flammable | <input type="checkbox"/> Explosive | <input type="checkbox"/> Organic Peroxide | <input type="checkbox"/> Irritant | <input type="checkbox"/> Acute Toxicity |
| <input type="checkbox"/> Combustible | <input type="checkbox"/> Reactive | <input type="checkbox"/> Pyrophoric | <input type="checkbox"/> Sensitizer | <input type="checkbox"/> Ingestion |
| <input type="checkbox"/> Oxidizer | <input type="checkbox"/> Water Reactive | <input type="checkbox"/> Compressed Gas | <input type="checkbox"/> Corrosive | <input type="checkbox"/> Inhalation |
| | | | | <input checked="" type="checkbox"/> OSHA or ACGIH Lim. |

SECTION I. Material Description

Chemical Name & Formula: Hydrated Alumina - $Al_2O_3 \cdot 3H_2O$
Other Designation: Alcoa Hydrated Alumina - C-31 (all), C-33, C-37, C-231, C-331, C-333, Hydral 705, Hydral 710
CAS No.: Hydrated Alumina (21645-51-2)

SECTION II. Ingredients

	<u>% Typical</u>	<u>Occupational Exposure Limits</u> <u>ACGIH TLVs (1984)</u>
Al_2O_3	65.0	Alumina Dust: Total Fraction - 10 mg/m ³ (TWA) - 20 mg/m ³ (STEL) Respirable Fraction - 5 mg/m ³ (TL)
* SiO_2	0.01-0.07	
* Fe_2O_3002-.006	
* Na_2O15 - .42	
Loss on ignition	34.5	

*Expressed as oxide equivalent

SECTION III. Physical Data

Physical Form: Crystalline powder	DENSITY:
Boiling Temperature: NA	Loose bulk: 8-15 lb/ft ³ for 705 & 710; 44-80 lb/ft ³ for others
Freeze-Melt Temperature: 3700°F (2038°C)	Packed bulk: 11-30 lb/ft ³ for 705 & 710; 60-100 lb/ft ³ for others
Vapor Pressure: NA	
Evaporation Rate: NA	
Specific Gravity: 2.4	
Density: See above, right	
Water Solubility: Insoluble; soluble in acids and alkalis	
pH: 8.5 (20% solution)	
Color: White	
Odor: None	

SECTION IV. Fire and Explosion Data

Flashpoint: NA	Auto-Ignition Temp.: NA	Flammability Limits in Air: NA	Lower:	Upper:
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Not an explosion hazard.

SECTION V. Reactivity Data

With air: None
 With water: None
 With heat: When exposed to fire or heat, hydrated alumina loses its water of crystallization, beginning at 392°F (200°C).
 With strong oxidizers: None
 Non-corrosive.

Section VI. Health Hazard Information

(See Section II for exposure limits)

Low health risk by inhalation. Treat as a nuisance dust as specified by the American Conference of Governmental Industrial Hygienists (ACGIH).

According to AIHA Hygiene Guide:

Toxicity by Ingestion: None expected.

Skin & Eyes: Not an irritant.

Section VII. Spill, Leak & Disposal Procedures

Use dry cleanup procedures; avoid dusting. Collect in containers or bags. If reuse or recycling is not possible, material may be disposed at a sanitary landfill.

RCRA Hazardous Waste No. Not Federally Regulated

Section VIII. Special Protection Information

Use with adequate ventilation to meet the exposure limits as listed in Section II. Where the exposure limit is or may be exceeded, use NIOSH approved respiratory protection. The selection of the appropriate respirator (dust respirator, etc.) should be based on the actual or potential airborne contaminants and their concentrations present.

Section IX. Special Precautions & Comments

Chemical substance components have been reported to the EPA Office of Toxic Substances in accordance with the requirements of the Toxic Substances Control Act (Title 40 CFR Part 710).

Shipping Name, Hazard Class, I.D. No. (if applicable) Not Regulated

Section X. References

American Industrial Hygiene Assoc. (AIHA) Hygienic Guide Series (Revised June 1978)

"This information herein is given in good faith, but no warranty, express or implied, is made."