Product Distributed By Rio Grande
Rio Stock # 100-960, 100-961, 100-965

Chem-Tel: emergency # 1-800-255-3924

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)

- ☐ Flammable
- ☐ Combustible
- ☐ Oxidizer
- ☐ Explosive
- ☐ Reactive
- ☐ Water Reactive
- ☐ Organic Peroxide
- ☐ Pyrophoric
- ☐ Compressed Gas
- ☐ Irritant
- ☐ Sensitizer
- ☐ Corrosive

Acute Toxicity

- ☐ Ingestion
- ☐ Inhalation
- ☐ Absorption
- ☐ Other Health Hazard (See Sec. VI)
- ■ 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

	% Typical
Al_2O_3	65.0
*SiO_2	0.01-0.07
*Fe_2O_3	.002-.006
*Na_2O	.15 - .42
Loss on ignition	34.5

*Expressed as oxide equivalent

Occupational Exposure Limits

ACGIH TLVs (1984)

Alumina Dust:

Total Fraction - 10 mg/m³ (TWA)
- 20 mg/m³ (STEL)

Respirable Fraction - 5 mg/m³ (TWA)

SECTION III. Physical Data

Physical Form:	Crystalline powder
Boiling Temperature:	NA
Freeze/Melt Temperature:	3700°F (2038°C)
Vapor Pressure:	NA
Evaporation Rate:	NA
Specific Gravity:	2.4
Density:	See above, right
Water Solubility:	Insoluble; soluble in acids and alkalies
pH:	8.5 (20% solution)
Color:	White
Odor:	None

DENSITY:

Loose bulk: 8-15 lb/ft³ for 705 & 710; 44-80 lb/ft³ for others

Packed bulk: 11-30 lb/ft³ for 705 & 710; 60-100 lb/ft³ for others

SECTION IV. Fire and Explosion Data

Flashpoint:	Auto-Ignition Temp.:	Flammability Limits in Air:	Lower:	Upper:
NA	NA	NA		

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).

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

tion X. References

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

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