

# Safety Data Sheet

H-TEC Alumina Trihydrate

MSDS No. 16031.3

Date of Preparation: 4/27/07

Revision: 1/31/13

## Section 1 - Chemical Product and Company Identification

**Product/Chemical Name:** H-TEC Alumina Trihydrate

**Synonyms:** Alumina Hydrate, ATH, Aluminum Hydroxide, Trihydrate D'aluminae, Hydrate d'aluminae, Gibbsite, Hydroxide d'aluminum, Alumine hydrate, hydrated alumina, Trioxyde d'aluminum, Aluminum Trihydroxide, Al<sub>2</sub>O<sub>3</sub>·3H<sub>2</sub>O

**General Use:** refractory material, abrasive, fire retardant and smoke suppressant for plastics, ceramic material.

**Manufacturer:** Marshall Additive Technologies

Division of The R. J. Marshall Company

26776 W. 12 Mile Road

Southfield, MI 48034-7807

Phone (248) 353-4100, Fax (248) 948-6460

**Emergency Phone:** (800) 424-9300

**Date Revised:** 1/31/13

**Preparer:** Stephanie Nichols

## Section 2 - Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

**HMIS**

**H** 1

**F** 0

**R** 0

**PPE**† E

†Sec. 8

### Potential Health Effects



**Warning:** Irritant, R37

**Primary Entry Routes:** Inhalation

#### Acute Effects

**Inhalation:** Inhalation of high concentrations of this inert nuisance particulate can result in mild irritation of the respiratory tract.

**Eye:** May cause irritation through mechanical abrasion.

**Skin:** May cause irritation through mechanical abrasion.

**Ingestion:** Unlikely.

**Carcinogenicity:** IARC, NTP, and OSHA do not list alumina trihydrate as a carcinogen.

**Medical Conditions Aggravated by Long-Term Exposure:** n/a

**Chronic Effects:** n/a

## Section 3 - Composition / Information on Ingredients

Ingredient Name	CAS Number	Weight
Alumina Trihydrate	21645-51-2	100%

#### Trace Impurities:

Ingredient	OSHA PEL		ACGIH TLV	
	TWA	STEL	TWA	STEL
Alumina Trihydrate	none estab.	none estab.	none estab.	none estab.
Nuisance Dust	15 mg/m <sup>3</sup> total, 5 mg/m <sup>3</sup> respirable	none estab.	none estab.	none estab.

## Section 4 - First Aid Measures

**Inhalation:** If overcome by high dust concentrations, remove to a ventilated area.

**Eye Contact:** Flush eyes thoroughly for 15 minutes taking care to rinse under eyelids. Do not scrub. Abrasion may cause irritation. If discomfort continues, continue to wash with water. If irritation persists, consult a physician.

**Skin Contact:** Wash skin thoroughly with soap and water for at least 15 minutes. Consult a physician if irritation persists.

**Ingestion:** If swallowed, dilute with large amounts of water. Do not induce vomiting. Consult a physician immediately.

*After first aid, get appropriate in-plant, paramedic, or community medical support.*

**Note to Physicians:** n/a

**Special Precautions/Procedures:** n/a

## Section 5 - Fire-Fighting Measures

**Flash Point:** None known.

**Flash Point Method:** n/a

**Burning Rate:** Does not burn.

**Auto-ignition Temperature:** Does not ignite.

**Flammability Classification:** n/a

**Extinguishing Media:** Water spray, carbon dioxide, or other dry chemical.

**Unusual Fire or Explosion Hazards:** None known.

**Hazardous Combustion Products:** None.

**Fire-Fighting Instructions:** Do not release runoff from fire control methods to sewers or waterways.

**Fire-Fighting Equipment:** Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face-piece operated in pressure-demand or positive-pressure mode.

## Section 6 - Accidental Release Measures

**Spill /Leak Procedures:** Collect solids. Recycle if possible.

**Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1910.120).

## Section 7 - Handling and Storage

**Handling Precautions:** Avoid generating dust during handling.

**Storage Requirements:** Keep material dry.

**S-phrases:** S8, S36/37/39

## Section 8 - Exposure Controls / Personal Protection

**Engineering Controls:**

**Ventilation:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

**Administrative Controls:**

**Protective Clothing/Equipment:** Wear tightly fitting safety goggles or safety glasses with side shields.

**Contaminated Equipment:** Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

**Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

## Section 9 - Physical and Chemical Properties

**Physical State:** white powder

**Appearance and Odor:** white odorless powder

**Odor Threshold:** n/e

**Vapor Pressure:** n/e

**Vapor Density (Air=1):** n/a

**Formula Weight:** n/a

**Density:** 8-80lb/ft<sup>3</sup>

**Specific Gravity (H<sub>2</sub>O=1, at 4 °C):** 2.4

**pH:** 8.5-10.2 (20% solution)

**Water Solubility:** Insoluble

**Other Solubilities:** Soluble in alkaline aqueous solutions or in HCL, H<sub>2</sub>SO<sub>4</sub>, and other strong acids in the presence of some water.

**Boiling Point:** n/a

**Freezing/Melting Point:** 3700°F (2038°C)

**Viscosity:** n/a

**Refractive Index:** n/a

**Surface Tension:** n/a

**% Volatile:** n/a

**Evaporation Rate:** n/a

## Section 10 - Stability and Reactivity

**Stability:** Alumina trihydrate is stable at room temperature in closed containers under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization cannot occur.

**Chemical Incompatibilities:** Strong acids and bases. Alumina trihydrate reacts vigorously with strong acids and will dissolve in caustic solutions.

**Reactivity with Heat:** When exposed to fire or heat, hydrated alumina loses its water of crystallization beginning at 392°F (200°C).

**Hazardous Decomposition Products:** n/a

## Section 11- Toxicological Information

### Toxicity Data:\*

**Eye Effects:** Nuisance dust. May cause irritation through mechanical abrasion. Flush with water for at least 15 minutes. Consult physician if irritation is persistent.

**Acute Inhalation Effects:** Nuisance dust. Overexposure to dust may cause irritation to the respiratory tract. Should this occur, remove affected individual to fresh air. If symptoms persist, consult a physician.

**Skin Effects:** Nuisance dust. May cause irritation through mechanical abrasion. Wash skin thoroughly with soap and water.

**Acute Oral Effects:** None known.

**Chronic Effects:** None known.

**Carcinogenicity:** Neither this product nor any of its components are considered carcinogenic by OSHA, IARC, NTP, or ACGIH.

## Section 12 - Ecological Information

No information available.

## Section 13 - Disposal Considerations

**Disposal:** Recycle if possible or landfill. This substance is inert and does not require special disposal methods. Follow applicable Federal, state, and local regulations.

## Section 14 - Transport Information

**DOT Transportation Data (49 CFR 172.101):** This product is not classified as dangerous under the transport regulations for road, rail, sea, or air transport.

## Section 15 - Regulatory Information

### EPA Regulations:

RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)

RCRA Hazardous Waste Classification (40 CFR 261.??): Not classified

CERCLA Hazardous Substance (40 CFR 302.4) not listed

SARA Toxic Chemical (40 CFR 372.65): Not listed

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed

### OSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed

OSHA Specifically Regulated Substance (29CFR 1910.????)

**Inventory Lists: This product is listed on the following inventory lists:**

TSCA	Australia AICS	Canada DSL	China IECSC	Europe EINECS	Japan ENCS	Korea ECL
Listed	Listed	Listed	Listed	244-492-7	1-17	KE-00980

New Zealand NZIoC	Swiss Giftlist	Philippines PICCS	Taiwan NECI
Listed	G-4621	Listed	Listed

S-phrases:

S8: Keep container dry.

S36/37/39: Wear suitable protective clothing, gloves, and eye protection.

**Section 16 - Other Information**

**Prepared By:** Stephanie Nichols

**Revision Notes:** 1/31/13

**Product Grades Available from the R. J. Marshall Company** (this list may be incomplete):

H30	HT120 (A,C,V)	HT126 (A,C,V)	HT136	HT216(A,C,V)	HT218(A,C,V)	HT312
HT314(A,C,V)	HT470(A)	HT490(A)	HT550(A)	HT636(A)	H705	HT710
H710B	HT826(A)	HT910	HT980	HT1000	HT1050	H710

Note: This includes all EXP ATH blends.

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