ALUMINA TRIHYDRATE (ATH)
FLAME RETARDANT

Section 1 – Chemical Product and Company Identification

- **Product/Chemical Name:** Alumina Trihydrate
- **Synonyms:** Alumina Hydrate, ATH, Aluminium Hydroxide, Gibbsite, Aluminate hydrate, hydrated alumina, Aluminium Trihydrate, Al2O3.3H2O
- **General Use:** refractory material, abrasive, fire retardant and smoke suppressant for plastics, ceramic material.
- **Manufacturer:** Vikas Ecotech Ltd. New Delhi India
- **Preparer:** Senior Chemist

Section 2 – Hazards Identification

- **Classification of the substance or mixture:**
  Classification according to Regulation (EC) No 1272/2008 (CLP): Not classified
  Classification according to Directive 67/548/EEC or Directive 1999/45/EC: Not classified
  - **Hazard Pictogram:** None
  - **Hazard Statements:** None
  - **Precautionary Statements:**
    P261: Avoid breathing dust.
    P280: Wear eye protection.
    P285: In case of inadequate ventilation wear respiratory protection.
    P301+313+330: IF SWALLOWED: Rinse mouth, get medical advice.
    P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do-continue rinsing.
    P302+352: IF ON SKIN: Wash with soap and water.
    P402: Store in a dry place.
  - **Other hazards:** Prolonged or excessive contact may cause irritation of the respiratory tract.

Section 3 – Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alumina Trihydrate</td>
<td>21645-51-2</td>
<td>100%</td>
</tr>
</tbody>
</table>

Section 4 – First Aid Measures

- **Inhalation:** If overcome by high dust concentrations, remove to a ventilated area.
- **Eye Contact:** Flush eyes thoroughly for several 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. Consult a physician if irritation persists.
Section 5 – Fire Fighting Measures

- **Suitable Extinguishing Media:** Use extinguishing measures appropriate to the surrounding fire.
- **Unsuitable Extinguishing Media:** None
- **Special hazards arising from the chemical:** None.
- **Hazardous Combustion Products:** None.
- **Fire-Fighting Instructions:** None

Section 6 – Accidental Release Measures

- **Personal precautions, protective equipment, and emergency procedures:** Avoid dust formation. In case of inadequate ventilation wear respiratory protection.
- **Environmental precautions:** None.
- **Methods and materials for containment and cleaning up:** Sweep up and dispose in accordance with local regulations.

Section 7 – Handling and Storage

- **Precautions for safe handling:** Avoid generating dust during handling.
- **Conditions for safe storage, including any incompatibilities:** Keep container tightly closed. Store in dry place.

Section 8 – Exposure Control/Personal Protection

- **Engineering Controls:**
- **Ventilation:** 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 | **Vapor Pressure:** n/e |
| **Appearance and Odor:** white odorless powder | **Vapor Density (Air=1):** n/a |
| **Odor Threshold:** n/a | **Relative Density:** 2.42 |
| **pH:** 8-9 (20% solution) | **Water Solubility:** Insoluble |
| **Freezing/Melting Point:** Decomposes before melting. | **Other Solubilities:** Soluble in alkaline aqueous solutions or in HCL, H2SO4, and other strong acids in the presence of some water. |
| **Boiling Point:** n/a | **Partition coefficient: n-octanol/water:** not applicable |
| **Flash Point:** Not applicable. | **Auto-ignition Temperature:** Does not ignite. |
| **Flash Point Method:** Not flammable. | **Decomposition temperature:** >200C |
| **Evaporation Rate:** n/a | **Viscosity:** n/a |
| **Flammability:** Not flammable. | **Upper/lower flammability or explosive limits:** n/a |
Section 10 – Stability and Reactivity

- Reactivity: None known.
- Chemical stability: Alumina trihydrate is stable at room temperature in closed containers under normal storage and handling conditions.
- Possibility of hazardous reactions: No hazardous reactions known.
- Conditions to avoid: Temperature >392°F (200°C).
- Incompatible materials: Strong acids and bases. Alumina trihydrate reacts vigorously with strong acids and will dissolve in caustic solutions.
- Hazardous decomposition products: n/a

Section 11 – Toxicological Information

- Carcinogenicity: No evidence of carcinogenic effects.
- Mutagenicity: No evidence of any mutagenic effects.
- Reproductive toxicity: No evidence of any reproductive toxicity effects.

Section 12 – Ecological Information

- Persistence and degradability: Not applicable for inorganic substances.
- Bioaccumulative potential: Not applicable.
- Mobility in soil: Not applicable.
- Results of PBT and vPvB assessment: This product does not meet the classification as PBT/vPvB.
- Other adverse effects: None known.

Section 13 – Disposal Considerations

- Disposal: Recycle if possible or landfill. This substance is inert and does not require special disposal methods.

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. UN Number: not classified as dangerous goods
- UN proper shipping name: not classified as dangerous goods
- Transport hazard classes: None
- Packaging group: None
- Environmental hazards: None
- Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: No hazardous goods.
- Special precautions for user: None

Section 15 – Regulatory Information

- EPA Regulations:
  RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)
  RCRA Hazardous Waste Classification (40 CFR): 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
- International Regulations:
  Regulation (EC) No 2037/2000 (Ozone Depleting Substances): Not applicable
  Regulation (EC) No 850/2004 (Persistant Organic Pollutants): Not applicable
  Regulation (EC) No 689/2008 (Export and Import of Dangerous Substances): Not applicable
Directive 2002/95/EC (RoHS): Not applicable
Directive 2002/96/EC (WEEE): Not applicable
Directive 1999/13/EC (VOC): Not applicable
Restrictions according to TITLE VIII of the Regulation (EC) No 1907/2006 (REACH): None

S-phrases:
S8: Keep container dry.
S36/37/39: Wear suitable protective clothing, gloves, and eye protection.
WEEE: Waste Electrical and Electronic Equipment
VOC: Volatile Organic Compounds
RoHS: Restriction of Hazardous Substances

Section 16 – Other Information

- NA

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