1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier
Product Code 839
Product Name ALUMINUM TRIHYDROXIDE
Contains Aluminum hydroxide, CAS 21645-51-2
Synonyms AB Dxx Series, BayGranite(R) Series, Dry Hydrate, FlameGard(R) Series

1.2. Relevant identified uses of the substance or mixture and uses advised against
Recommended Use Fire retarding agent, Filler, Water treatment
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet
Almatis GmbH Almatis, Inc. Almatis, Inc. Almatis Burnside, Inc.
Lyoner Str. 9 4701 Alcoa Road P.O. Box 1601 41237 Hwy 22
60528 Frankfurt Benton, AR 72015 1532 Rocky Face R/R St. Burnside, LA 70738, USA
Germany USA USA
Phone: +49 69 9573410 Phone: +1 501 776-4677 Phone: +1 760 476 3962

For further information, please contact
E-mail address info@almatis.com

1.4. Emergency telephone number
Emergency Telephone Number Almatis: +1 501-776-4677
US: +01 760 476 3962
CHEMTREC:
+1-800-424-9300 (US and Canada)

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
REGULATION (EC) No 1272/2008
Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Classification according to Regulation (EC) No. 1272/2008 [CLP]
No data available

Not applicable

2.2. Label Elements
Symbol(s)
Not applicable
Signal word
None

Hazard statements
None

2.3. Other information
No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Weight-%</th>
<th>REACH Reg. No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum hydroxide</td>
<td>21645-51-2</td>
<td>&gt;90</td>
<td>01-2119529246-39-0047</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

4.1. Description of first aid measures
Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Skin Contact: Wash skin with soap and water.
Ingestion: Rinse mouth
Inhalation: Remove to fresh air
General Advice: If symptoms persist, call a physician
Show this safety data sheet to the doctor in attendance

4.2. Most important symptoms and effects, both acute and delayed
No information available

4.3. Indication of any immediate medical attention and special treatment needed
Notes to Physician
Treat symptomatically

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media
Suitable Extinguishing Media
The product itself does not burn
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment
Extinguishing media which must not be used for safety reasons
No information available

5.2. Special hazards arising from the substance or mixture
Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases
None in particular.

5.3. Advice for firefighters
Special protective equipment for fire-fighters
As in any fire, wear self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES
6.1. Personal precautions, protective equipment and emergency procedures
Wear personal protective equipment
Avoid dust formation

6.2. Environmental precautions
No special environmental precautions required

6.3. Methods and material for containment and cleaning up
Recover product. Place into appropriate container for disposal.
Methods for Cleaning Up
Sweep up and shovel into suitable containers for disposal

6.4. Reference to other sections
See Section 12 for additional information.

7. HANDLING AND STORAGE

7.1. Precautions for Safe Handling
Handling
Provide appropriate exhaust ventilation at places where dust is formed

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice

Exposure scenario
No information available

7.2. Conditions for safe storage, including any incompatibilities
Keep in a dry place
Protect from moisture.

7.3. Specific end use(s)
No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>EU</th>
<th>United Kingdom</th>
<th>France</th>
<th>Spain</th>
<th>Germany OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum hydroxide</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.0 mg/m³</td>
</tr>
<tr>
<td>21645-51-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.0 mg/m³ (a)</td>
</tr>
</tbody>
</table>

(a) GOEL - Germany - TRGS 900 - Occupational Exposure Limits - TWAs, (a) exempt facilities listed in 2.4(8) and (9)

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA PEL</th>
<th>ACGIH TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum hydroxide</td>
<td>= 15 mg/m³ TWA</td>
<td>1 mg/m³ TWA (respirable fraction)</td>
</tr>
<tr>
<td>21645-51-2 ( &gt;90 )</td>
<td>total dust</td>
<td></td>
</tr>
<tr>
<td></td>
<td>= 5 mg/m³ TWA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>respirable fraction</td>
<td></td>
</tr>
</tbody>
</table>

Derived No Effect Level (DNEL) 3 mg/m³, respirable, 8 hour TWA

Predicted No Effect Concentration (PNEC) No information available

8.2. Exposure controls
Personal protective equipment

Eye Protection Wear safety glasses with side shields (or goggles)
Skin Protection No special protective equipment required.
Hand Protection No special protective equipment required.
Respiratory Protection
In case of insufficient ventilation, wear suitable respiratory equipment
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

Environmental exposure controls
No information available

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Powder</td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>pH</td>
<td>8.5 - 10.2</td>
</tr>
<tr>
<td>Flash point (°C) DEGREES</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Autoignition temp (°F) DEGREES</td>
<td>Does not ignite</td>
</tr>
<tr>
<td>Boiling point/range (°C) DEGREES</td>
<td>Not determined</td>
</tr>
<tr>
<td>Melting Point/Range</td>
<td></td>
</tr>
<tr>
<td>Melting point (°C) VALUE</td>
<td>Decomposes before melting</td>
</tr>
<tr>
<td>Melting point (°C) DEGREES</td>
<td></td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in strong acids and strong bases</td>
</tr>
<tr>
<td>Density</td>
<td>2.42 g/cm³</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>0.15-1.3 g/cm³</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

10.1. Reactivity
None under normal processing

10.2. Chemical Stability
Stable under normal conditions

10.3. Possibility of Hazardous Reactions
Heating the material above 200°C will result in a sudden release of water vapor (steam). Precautions must be taken to dissipate the vapor and any pressure that may be generated. A sudden increase in pressure could cause damage or explosion in enclosed equipment.

10.4. Conditions to Avoid
No information available

10.5. Incompatible materials
None under normal processing

10.6. Hazardous Decomposition Products
Steam

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute Toxicity

<table>
<thead>
<tr>
<th>Toxicity Type</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Oral</td>
<td>Conclusive but not sufficient for classification</td>
</tr>
<tr>
<td>Acute toxicity - Dermal</td>
<td>Conclusive but not sufficient for classification</td>
</tr>
<tr>
<td>Acute toxicity - Inhalation (Dusts/Mists)</td>
<td>Conclusive but not sufficient for classification</td>
</tr>
</tbody>
</table>

Chronic Toxicity

<table>
<thead>
<tr>
<th>Toxicity Type</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irritation</td>
<td>Conclusive but not sufficient for classification</td>
</tr>
<tr>
<td>Corrosivity</td>
<td>Conclusive but not sufficient for classification</td>
</tr>
<tr>
<td>Sensitization</td>
<td>Conclusive but not sufficient for classification</td>
</tr>
<tr>
<td>Mutagenic Effects</td>
<td>Conclusive but not sufficient for classification</td>
</tr>
<tr>
<td>Carcinogenic Effects</td>
<td>Conclusive but not sufficient for classification</td>
</tr>
</tbody>
</table>
12. ECOLOGICAL INFORMATION

12.1. Toxicity
Ecotoxicity effects
Not water endangering
(WGK: 1346)

12.2. Persistence and degradability
No information available

12.3. Bioaccumulative potential
No information available

12.4. Mobility in soil
No information available

12.5. Results of PBT and vPvB assessment
No information available

12.6. Other adverse effects

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Waste from Residues/Unused Products
Disposal should be in accordance with applicable regional, national and local laws and regulations

Contaminated Packaging
Empty containers should be taken to an approved waste handling site for recycling or disposal

14. TRANSPORT INFORMATION

Note: Not classified as dangerous in the meaning of transport regulations

IMDG/IMO Not regulated.
RID Not regulated.
ADR Not regulated
ICAO Not regulated
IATA Not regulated

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
International Inventories

TSCA Complies
EINECS/ELINCS Complies
DSL/NDSL Complies
PICCS Complies
ENCS Complies
IECSC Complies
AICS Complies
KECL Complies
15.2. Chemical Safety Assessment
A Chemical Safety Assessment has been carried out.

16. OTHER INFORMATION

Key literature references and sources for data
www.ChemADVISOR.com/

Prepared By
Edwin van Hagen
Almatis B.V.
Theemsweg 30
3197 KM Botlek Rt
The Netherlands
+31-181-270124
Edwin.vanhagen@almatis.com

Issuing Date
02-Apr-2012
Revision Date
26-Mar-2018

Revision Note
Reason for revision
Revision 13, March 2018
Updated Almatis Inc. address
Updated emergency telephone numbers
Updated Prepared By

Updates
The most current version of this Safety Data Sheet is available at this URL:

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the
date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage,
transportation, disposal and release and is not to be considered a warranty or quality specification. The information
relates only to the specific material designated and may not be valid for such material used in combination with any other
materials or in any process, unless specified in the text.

End of Safety Data Sheet