

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

### 1.1. Product identifier

**Product Code** 1095

**Product Name** **CACLIUM ALUMINATE BINDER AM 92**

**Contains** Aluminum oxide, CAS 1344-28-1  
Calcium aluminate, CAS 65997-16-2

**Synonyms** Alumina mix, AM 92

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### **Recommended Use**

Refractory

#### **Uses advised against**

No information available

### 1.3. Details of the supplier of the safety data sheet

Almatis GmbH Lyoner Str. 9 60528 Frankfurt Germany	Almatis GmbH Giulinistrasse 2 67065 Ludwigshafen Germany
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**For further information, please contact**

### 1.4. Emergency telephone number

Almatis: +1 501-776-4677

CHEMTREC:

+1-703-527-3887 (INTERNATIONAL)

+1-800-424-9300 (NORTH AMERICA)

## 2. HAZARDS IDENTIFICATION

### 2.1. - Classification of the substance or mixture

#### **REGULATION (EC) No 1272/2008**

The product is not classified as dangerous according to Regulation (EC) No. 1272/2008

#### **Classification according to Directive 67/548/EEC or 1999/45/EC**

Not classified

#### **R-Phrases**

Not applicable

#### **GHS Classification**

The product is not classified as hazardous according to GHS

### 2.2. Label Elements

#### **Symbol(s)**

None

**Signal Word**

None

**Hazard Statements**

None

**Precautionary Statements**

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P280 - Wear eye protection/ face protection

P285 - In case of inadequate ventilation wear respiratory protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

**2.3. Other information**

No information available

**3. COMPOSITION/INFORMATION ON INGREDIENTS****3.1. Substances**

Chemical Name	CAS No.	Weight-%	REACH Reg. No
Aluminum oxide	1344-28-1	65-100	01-2119529248-35-0024 01-2119529248-35-0125 01-2119529248-35-0086 01-2119529248-35-0238
Calcium aluminate	65997-16-2	0-35	
Boric acid	10043-35-3	0-0.2	

**4. FIRST AID MEASURES****4.1. Description of first aid measures**

<b>Eye Contact</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
<b>Skin Contact</b>	Wash skin with soap and water.
<b>Ingestion</b>	Rinse mouth
<b>Inhalation</b>	Remove to fresh air
<b>General Advice</b>	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**

Mild eye irritant.

Mild skin irritant

**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**

Shovel or sweep up

## 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**

Chemical Name	EU	United Kingdom	France	Spain	Germany OEL (TWA)
Aluminum oxide 1344-28-1			VME: 10 mg/m <sup>3</sup>	VLA-ED: 10 mg/m <sup>3</sup>	1.25 mg/m <sup>3</sup> 6.0 mg/m <sup>3</sup> (a)
Calcium aluminate 65997-16-2					1.25 mg/m <sup>3</sup> 6.0 mg/m <sup>3</sup> (a)
Boric acid 10043-35-3					2.6 mg/m <sup>3</sup>

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

Component	Italy	Portugal	Netherlands	Finland	Denmark

Aluminum oxide 1344-28-1 ( 65-100 )		TWA: 10 mg/m <sup>3</sup>			TWA: 10 mg/m <sup>3</sup>
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Component	OSHA PEL	ACGIH TWA
Aluminum oxide 1344-28-1 ( 65-100 )	15 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable fraction)	1 mg/m <sup>3</sup> TWA (respirable fraction)
Boric acid 10043-35-3 ( 0-0.2 )	= 15 mg/m <sup>3</sup> TWA total dust = 5 mg/m <sup>3</sup> TWA respirable fraction	= 2 mg/m <sup>3</sup> TWA  = 6 mg/m <sup>3</sup> STEL

**Derived No Effect Level (DNEL)** 3 mg/m<sup>3</sup>, respirable, 8 hour TWA

**Predicted No Effect Concentration (PNEC)** No information available

**8.2. Exposure controls**

**Engineering Controls** Ensure adequate ventilation, especially in confined areas

**Personal protective equipment**

**Eye Protection** Safety glasses with side-shields

**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**

<b>Physical State</b>	Powder
<b>Color</b>	White
<b>Odor</b>	None
<b>pH</b>	8 - 11
<b>Flash point (°C) DEGREES</b>	Not applicable
<b>Autoignition temp (°F) DEGREES</b>	Does not ignite
<b>Boiling point/range (°C) DEGREES</b>	Not determined
<b>Melting Point/Range</b>	1700 - 2000
<b>Melting point (°C) DEGREES</b>	°C
<b>Solubility</b>	Insoluble
<b>Density</b>	2.5-3.5 g/cm <sup>3</sup>
<b>Bulk Density</b>	800-1100 kg/m <sup>3</sup>

**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**

None under normal processing

**10.4. Conditions to Avoid**

None under normal processing

**10.5. Incompatible materials**

None under normal processing

**10.6. Hazardous Decomposition Products**

Not applicable

**11. TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects****Acute Toxicity**

<b>Acute oral toxicity</b>	Conclusive but not sufficient for classification
<b>Acute dermal toxicity</b>	Conclusive but not sufficient for classification
<b>Acute inhalation toxicity</b>	Conclusive but not sufficient for classification

**Chronic Toxicity**

<b>Irritation</b>	Conclusive but not sufficient for classification
<b>Corrosivity</b>	Conclusive but not sufficient for classification
<b>Sensitization</b>	Conclusive but not sufficient for classification
<b>Mutagenic Effects</b>	Conclusive but not sufficient for classification
<b>Carcinogenic effects</b>	Conclusive but not sufficient for classification
<b>Reproductive Effects</b>	Conclusive but not sufficient for classification
<b>Developmental Effects</b>	Conclusive but not sufficient for classification
<b>Aspiration Hazard</b>	Conclusive but not sufficient for classification

**12. ECOLOGICAL INFORMATION****12.1. Toxicity****Ecotoxicity effects**

Water hazard class 1 (German Regulation): slightly hazardous for water  
 WGK Kenn-Nr. 2652 (Calcium aluminate)

**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**

None known

**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

#### Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

AICS - Australian Inventory of Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

### 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/](http://www.ChemADVISOR.com/)

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**Revision Summary**

Revision 5, April 2008  
Section 1, changed contact address  
Section 3, revised ingredients listed  
Section 16, added email address and revision history  
Revision 6, February 2011  
Section 3, revised ingredients listed  
Revision 7, May 2011  
Update to format  
Revision 8, February 2014  
Section 8, revised ACGIH TWA  
Revision 9, August 2014  
Section 8, revised GOEL  
Revision 10, February 2015  
Section 1, revised product name  
Section 2, Added GHS statement (not hazardous)

**Updates**

The most current version of this Safety Data Sheet is available at this URL:  
<http://almatiswv.thewerco.com/private/search.aspx?language=EN>

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

**Disclaimer**

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**End of Safety Data Sheet**