SAFETY DATA SHEET

Almatis, Inc.

501 West Park Road

Leetsdale, PA 15056 USA

Issuing Date 06-Feb-2012 Revision Date 15-Feb-2016 Revision Number 19

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

1.1. Product identifier

Product Code 387

Product Name CALCINED ALUMINA and POLISHING ALUMINA

Contains Aluminum oxide, CAS 1344-28-1

Synonyms A-Aluminas, AB-Aluminas, CL-Aluminas, CT-Aluminas, CTC-Aluminas, E-SY 1000, Flux

> Grade, Fusion Grade, Gilox, HVA, IS-Aluminas, LS-Aluminas, P-Aluminas, RG-Aluminas, Refractory Grade, SC-Aluminas, Special Grade, WRA, Exception: CTC55 - see Material Safety Data Sheet 1000, Exception: CT3000 SDP - see Material Safety Data Sheet 1259

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

Recommended Use

Adsorbents, Ceramic, Filler, Polishing agent, Refractory

Uses advised against

No information available

1.3. Details of the supplier of the safety data sheet

Almatis GmbH Almatis GmbH Lyoner Str. 9 Giulinistrasse 2 60528 Frankfurt 67065 Ludwigshafen

Germany Germany

Almatis Alumina Pvt. Ltd. Falta Industrial Growth Centre,

Sec III

24-Parganas South, West Bengal

Falta, India

Qingdao Almatis Co., Ltd. Box 150, Sunshine Tower

61 Hongkong Middle Road

Qingdao 266071 P.R. China

41237 Hwy 22 Burnside, LA 70738, USA

Almatis Burnside, Inc.

Bauxite, AR 72022 USA

Almatis, Inc.

P.O. Box 300

4701 Alcoa Road

For further information, please contact

info@almatis.com

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

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GHS Classification

The product is not classified as hazardous according to GHS

2.2. Label Elements

Symbol(s)

Not applicable

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	>99	01-2119529248-35-0024 01-2119529248-35-0125 01-2119529248-35-0086 01-2119529248-35-0238

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

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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

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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

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 ³	VLA-ED: 10 mg/m ³	1.25 mg/m ³ 6.0 mg/m ³ (a)

(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		TWA: 10 mg/m ³			TWA: 10 mg/m ³
1344-28-1 (>99)					

Component	OSHA PEL	ACGIH TWA	
Aluminum oxide	15 mg/m ³ TWA (total dust); 5 mg/m ³	1 mg/m ³ TWA (respirable fraction)	

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1344-28-1 (>99) TWA (respirable fraction)

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

Predicted No Effect Concentration No information available

(PNEC)

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 When workers are facing concentrations above the exposure limit they must use

appropriate certified respirators

Avoid dust formation **Environmental exposure controls**

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State Powder, Granular

Color White Odor None рΗ 8 - 10 Flash point (°C) DEGREES Not applicable

Boiling point/range (°C) DEGREES 2210 Melting point (°C) DEGREES 2000 - 2050Solubility Insoluble Density 2.7-3.94 g/cm3 **Bulk Density** 350-1250 kg/m³

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

None under normal processing

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute Toxicity

Acute oral toxicity Conclusive but not sufficient for classification Conclusive but not sufficient for classification Acute dermal toxicity Acute inhalation toxicity Conclusive but not sufficient for classification

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Chronic Toxicity

Irritation Conclusive but not sufficient for classification Conclusive but not sufficient for classification Corrosivity Sensitization Conclusive but not sufficient for classification **Mutagenic Effects** Conclusive but not sufficient for classification Carcinogenic effects Conclusive but not sufficient for classification **Reproductive Effects** Conclusive but not sufficient for classification **Developmental Effects** Conclusive but not sufficient for classification **Aspiration Hazard** Conclusive but not sufficient for classification

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects

Not water endangering

Aquatic toxicity is unlikely due to low solubility

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 Not regulated.

ICAO Not regulated Not regulated.

IATA Not regulated Not regulated.

15. REGULATORY INFORMATION

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

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TSCA Complies **EINECS/ELINCS** Complies Listed on DSL DSL/NDSL **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/

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 Issuing Date
 06-Feb-2012

 Revision Date
 15-Feb-2016

Revision Summary Revision 11, April 2008

Section 1, changed contact address

Section 16, added email address and revision history

Revision 12, June 2010

Section 1, added additional products to synonyms

Revison 13, March 2011

Update to format

Revision 14, February 2012

Section 1, added Qingdao Almatis Ltd. to supplier details

Revision 15, July 2013

Section 15, corrected listing for DSL, ENCS, and PICCS

Revision 16, January 2014 Section 1, added AB-Aluminas Section 1, added Almatis Burnside Inc..

Section 8, revised ACGIH TWA

Section 9, added boiling point and revised melting point

Revision 17, August 2014 Section 8, revised GOEL Revision 18, February 2015

Section 1, added Polishing Alumina to product name

Section 1, revised synonyms Revision 19, February 2016

Section 1, added Fusion, Refractory, and Special Grades

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

http://almatiswv.thewercs.com/private/search.aspx?language=EN

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

Disclaimer

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End of Safety Data Sheet