SAFETY DATA SHEET

Preparation Date 28-Mar-2011 **Revision Date** 28-Mar-2011 **Revision Number** 7

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

1.1. Product identifier

Product Code	993
Product Name	**CALCIUM ALUMINATE CEMENT**
Contains	Calcium aluminate, CAS 65997-16-2
Synonyms	CA-14 M, CA-14 S, CA-14 W, CA-25 C, CA-25 M, CA-25 R, CA-270, CA-470 TI, CAC DISCHARGE

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

Recommended Use
Hydraulic binder. Used for production of refractory concretes and mortars and as ingredient of construction materials and construction chemistry products.

Uses advised against
No information available

1.3. Details of the supplier of the safety data sheet

Almatis GmbH	Almatis B.V.
Lyoner Str. 9	Theemsweg 30
60528 Frankfurt	NL-3197 KM Botlek R
Germany	The Netherlands

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 EU Directives 67/548/EEC or 1999/45/EC
Not classified

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	EINECS	CAS-No	Weight %	REACH No.
Aluminum oxide	215-691-6	1344-28-1	0-50	01-2119529248-35-0024 01-2119529248-35-0125 01-2119529248-35-0086 01-2119529248-35-0087
Calcium aluminate	266-045-5	65997-16-2	40-100	Exempt

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 Move 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
Mild eye irritant.
Mild skin irritant.

4.3. Indication of 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. FIRE-FIGHTING MEASURES

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
Do not flush into surface water or sanitary sewer system
Do not contaminate surface water

6.3. Methods and materials 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^3	VLA-ED: 10 mg/m^3	3.0 mg/m^3 6.0 mg/m^3(a)
Calcium aluminate 65997-16-2					3.0 mg/m^3 6.0 mg/m^3(a)

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

Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
Aluminum oxide 1344-28-1		TWA: 10 mg/m^3			TWA: 10 mg/m^3

Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Aluminum oxide 1344-28-1	MAK: 6 mg/m^3 STEL: 30 mg/m^3	MAK: 3 mg/m^3 STEL: 24 mg/m^3	NDS: 2 mg/m^3 NDSCh: 16 mg/m^3	OEL: 10 mg/m^3	TWA: 10 mg/m^3 TWA: 4 mg/m^3

Chemical Name	Japan	OSHA PEL	ACGIH TWA
Aluminum oxide 1344-28-1	TWA: 0.5 mg/m^3 TWA: 2 mg/m^3	= 15 mg/m^3 TWA total dust = 5 mg/m^3 TWA respirable fraction	10mg/m^{3}TWA particulate matter containing no asbestos and < 1% crystalline silica
Calcium aluminate 65997-16-2		N/A	N/A

Derived No Effect Level (DNEL) No information available.

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

Physical State Powder
Color Off-white
Odor None
pH 11.3 - 11.5
Flash Point Not applicable
Autoignition temp (°F) DEGREES Does not ignite
Boiling Point/Range Not determined
Melting Point/Range 1650 - 1820°C
Solubility Slightly soluble
Density 2.8-3.3 g/cm3
Bulk Density 750-1100 kg/m^3
Risk of explosion None

10. STABILITY AND REACTIVITY

10.1. Reactivity

None under normal processing

10. STABILITY AND REACTIVITY

10.2. Chemical Stability
Stable under normal conditions

10.3. Possibility of Hazardous Reactions
Heating occurs when water is added

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

Acute oral toxicity	No information available
Acute dermal toxicity	No information available
Acute inhalation toxicity	No information available

Chronic Toxicity

Irritation	Conclusive but not sufficient for classification
Corrosivity	No information available
Sensitization	No information available
Mutagenic Effects	No information available
Carcinogenic effects	No information available
Reproductive Effects	No information available
Developmental Effects	No information available
Aspiration Hazard	No information available.

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
Dispose of in accordance with local regulations

Contaminated Packaging
Empty containers should be taken for local recycling, recovery or waste 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 Commercial Chemical Substances/EU 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

16. OTHER INFORMATION

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

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Revision Summary
Revision 6, April 2008
Section 1, changed contact address
Section 3, revised ingredients
Section 16, added email address and revision history
Revison 7, March 2011
Update to format

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

Disclaimer
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End of Safety Data Sheet