

Revision date 26-Sep-2023

Revision Number 11

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product Code(s) 993
Product Name CALCIUM ALUMINATE CEMENT

Other means of identification

Synonyms CA-14 M, CA-14 S, CA-14 W, CA-25 C, CA-25 M, CA-25 R, CA-270, CA-470 TI, CA-670, CA-680, CAC DISCHARGE, CARO WHITE, CA-SYNC

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 building chemistry products
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Manufacturer	Supplier
Almatris B.V.	Almatris GmbH
Theemsweg 30	Lyoner Str. 9
NL-3197 KM Botlek Rt	60528 Frankfurt
The Netherlands	Germany
Phone: +31 181270129	+ 49 69 9573410
<u>For further information, please contact</u>	

E-mail address info@almatris.com

1.4. Emergency telephone number

Emergency Telephone 3E Global Incident Response Hotline (Almatris access code: 334735)
GB: +44 20 35147487
UK: 0 800 680 0425

Emergency Telephone - §45 - (EC)1272/2008
--

Europe	Not applicable
---------------	-----------------------

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

Signal word

None

Hazard statements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]
EUH210 - Safety data sheet available on request

Precautionary Statements - EU (§28, 1272/2008)

P403 + P235 - Store in a well-ventilated place. Keep cool

2.3. Other hazards

No information available.

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Calcium aluminate 65997-16-2	40-100	Exempt	EEC No. 266-045-5	-	-	-	-
Aluminum oxide 1344-28-1	0-50	01-211952924 8-35-XXXX	215-691-6	-	-	-	-

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate

No information available

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Aluminum oxide 1344-28-1	5000	No data available	No data available	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Additional information

Does not contain any detectable quantities of chromium or free crystalline silica

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	Mild eye irritant. Mild skin irritant.
----------	--

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	Treat symptomatically.
-----------------	------------------------

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
------------------------------	---

Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
------------	--

Unsuitable extinguishing media	No information available.
--------------------------------	---------------------------

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	None known. Not flammable.
--	----------------------------

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
--	--

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions	Ensure adequate ventilation. Avoid generation of dust. Do not breathe dust.
----------------------	---

For emergency responders	Use personal protection recommended in Section 8.
--------------------------	---

6.2. Environmental precautions

Environmental precautions	See Section 12 for additional Ecological Information.
---------------------------	---

6.3. Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so. Prevent dust cloud.
Methods for cleaning up	Sweep up and shovel into suitable containers for disposal. Pick up and transfer to properly labelled containers.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.
6.4. Reference to other sections	
Reference to other sections	See Section 7 for more information. See section 8 for more information. See section 13 for more information. Personal protective equipment [PPE]. Disposal. Advices on safe handling.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid generation of dust. Ensure adequate ventilation.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep container tightly closed in a dry and well-ventilated place.
---------------------------	---

7.3. Specific end use(s)

Specific use(s)
Hydraulic binder.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Aluminum oxide 1344-28-1	-	TWA: 5 mg/m ³ STEL 10 mg/m ³	TWA: 1 mg/m ³	TWA: 10.0 mg/m ³ TWA: 1.5 mg/m ³	TWA: 10 mg/m ³ TWA: 4 mg/m ³
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Aluminum oxide 1344-28-1	-	TWA: 10.0 mg/m ³	TWA: 5 mg/m ³ TWA: 2 mg/m ³ STEL: 10 mg/m ³ STEL: 4 mg/m ³	TWA: 10 mg/m ³ TWA: 4 mg/m ³	-
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Aluminum oxide 1344-28-1	TWA: 10 mg/m ³	TWA: 1.25 mg/m ³ TWA: 10 mg/m ³	TWA: 4 mg/m ³ TWA: 1.5 mg/m ³	TWA: 10 mg/m ³ TWA: 5 mg/m ³	TWA: 52 mg/m ³
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Aluminum oxide 1344-28-1	TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 30 mg/m ³ STEL: 12 mg/m ³	-	TWA: 1 mg/m ³	TWA: 6 mg/m ³	TWA: 5 mg/m ³ TWA: 2 mg/m ³

Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Aluminum oxide 1344-28-1	-	-	-	TWA: 10 mg/m ³ STEL: 20 mg/m ³	TWA: 2.5 mg/m ³ TWA: 1.2 mg/m ³
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Aluminum oxide 1344-28-1	TWA: 1 mg/m ³	TWA: 2 mg/m ³ TWA: 3 mg/m ³ TWA: 1 mg/m ³ STEL: 5 mg/m ³ STEL: 10 mg/m ³ STEL: 3 mg/m ³	TWA: 4 mg/m ³ TWA: 1.5 mg/m ³	-	TWA: 10 mg/m ³
Chemical name	Sweden		Switzerland		United Kingdom
Aluminum oxide 1344-28-1	NGV: 5 mg/m ³ NGV: 2 mg/m ³		TWA: 3 mg/m ³ TWA: 10 mg/m ³ STEL: 24 mg/m ³		TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 30 mg/m ³ STEL: 12 mg/m ³

Biological occupational exposure limits

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
Aluminum oxide 1344-28-1	-	60 µg/g Creatinine (urine - Aluminum after end of work day, at the end of a work week/end of the shift) (-)	-	-	-
Chemical name	Slovenia	Spain	Switzerland	United Kingdom	
Aluminum oxide 1344-28-1	-	-	50 µg/g creatinine (urine - Aluminum after several shifts (for long-term exposures)) 0.21 µmol/mmol creatinine (urine - Aluminum after several shifts (for long-term exposures))	-	

Derived No Effect Level (DNEL) - Workers No information available

Derived No Effect Level (DNEL) - General Public No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering controls No information available.

Personal protective equipment

Eye/face protection Eye protection must conform to standard EN 166.

Hand protection Wear suitable gloves.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	White to off-white Powder
Colour	White to off-white
Odour	None.
Odour threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	1650 - 1820 °C	
Initial boiling point and boiling range	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	-	Does not ignite
Decomposition temperature		None known
pH	10.5-11.0	aqueous solution
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	No data available	Insoluble
Solubility(ies)	slightly soluble	
Partition coefficient	No data available	None known
Vapour pressure	No data available	None known
Relative density	No data available	None known
Bulk density	750-1100 kg/m ³	
Liquid Density	2.8-3.3 g/cm ³	
Relative vapour density	No data available	
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

9.2.1. Information with regards to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity None under normal use conditions. None under normal processing.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Contact with water generates heat.

Hazardous polymerisation None under normal processing.

10.4. Conditions to avoid

Conditions to avoid dust formation. Avoid generation of dust. Avoid accumulation of airborne dust.

10.5. Incompatible materials

Incompatible materials Strong acids. Oxidising agent. Ammonium salts.

10.6. Hazardous decomposition products

Hazardous decomposition products None under normal use conditions.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Information on likely routes of exposure****Product Information**

Inhalation May cause irritation.

Eye contact Dust contact with the eyes can lead to mechanical irritation.

Skin contact Causes mild skin irritation.

Ingestion No known hazard by swallowing.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity**Numerical measures of toxicity**

No information available

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 5,005.00 mg/kg

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Aluminum oxide	> 5000 mg/kg (Rat)	-	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitisation No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

11.2. Information on other hazards**11.2.1. Endocrine disrupting properties**

Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information**12.1. Toxicity**

Ecotoxicity Not considered to be harmful to aquatic life.

12.2. Persistence and degradability

Persistence and degradability Not readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

12.4. Mobility in soil

Mobility in soil No information available.

Mobility No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
Calcium aluminate	The substance is not PBT / vPvB
Aluminum oxide	The substance is not PBT / vPvB PBT assessment does not apply

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.
Waste codes / waste designations according to EWC / AVV	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. 01 03 08.

SECTION 14: Transport information

IATA

14.1 UN number or ID number	Not regulated
14.2 EPNI	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

IMDG

14.1 UN number or ID number	Not regulated
14.2 EPNM	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number	Not regulated
14.2 EPNR	Not regulated

14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

TSCA	Complies
DSL/NDL	Listed on DSL
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Does not comply
AIIC	Complies
NZIoC	Contact supplier for inventory compliance status

Legend:

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

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

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIIC - Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend

SVHC: Substances of Very High Concern for Authorisation:
 PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
 vPvB: Very Persistent and very Bioaccumulative (vPvB) Chemicals

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers		

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
 European Chemicals Agency (ECHA) (ECHA_API)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AELG(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 National Institute of Technology and Evaluation (NITE)
 Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)
 Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
 Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
 Organisation for Economic Co-operation and Development Screening Information Data Set
 World Health Organization

NOT FOR MEDICAL USE

Prepared By Product Safety Department
 Almatix B.V.
 Theemsweg 30
 3197 KM Botlek Rt

The Netherlands
+31-181-270124
info@almatis.com

Revision date 26-Sep-2023

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

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