

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name/designation:	Calcium chloride hexahydrate CZDA
Product No.:	875010112-030
Index No.:	017-013-00-2
CAS No.:	7774-34-7
EU REACH No.:	01-2119494219-28-XXXX
Other means of identification:	none

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

Relevant identified uses	General chemical reagent
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1.3 Details of the supplier of the safety data sheet

Supplier

Avantor Performance Materials Poland S.A.

Street	Sowinskiego 11str.
Postal code/City	44-101 Gliwice, Polska
Telephone	48 32 239-20-00
Telefax	48 32 239-23-70
E-mail (competent person)	SDS@avantorsciences.com

1.4 Emergency phone number

Telephone	CHEMTREC: 088-181-7059
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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Health hazards

Eye irritation, category 2

H319 - Causes serious eye irritation.

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms



Signal word: Warning

Hazard statements

H319 - Causes serious eye irritation.

Precautionary statements

Prevention:

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response:

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

2.3 Other hazards

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

This product does not contain a substance that has endocrine disrupting properties.

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name:	Calcium chloride hexahydrate
Molecular formula:	CaCl ₂ ·6H ₂ O
Molecular weight:	219.08 g/mol
CAS No.:	7774-34-7
EU REACH registration No.:	01-2119494219-28-XXXX
EC No.	233-140-8
ATE, SCL and/or M-factor:	none

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Remove victim out of the danger area. Do not leave affected person unattended. Change contaminated, saturated clothing.

After inhalation

Remove casualty to fresh air and keep warm and at rest. When in doubt or if symptoms are observed, get medical advice.

In case of skin contact

Take off contaminated clothing and wash it before reuse. After contact with skin, wash immediately with plenty of water and soap. When in doubt or if symptoms are observed, get medical advice.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Transport to the ophthalmologist or eye clinic as soon as possible. Continue rinsing with isotonic saline solution during transport, alternatively with water.

In case of ingestion

Rinse mouth immediately and drink plenty of water.

Self-protection of the first aider

First aider: Pay attention to self-protection! Use personal protection equipment.

4.2 Most important symptoms and effects, both acute and delayed

After eye contact: Irritation. Conjunctival redness. After skin contact: No information available. After ingestion: No information available.

4.3 Indication of any immediate medical attention and special treatment needed

No special information on medical attention and special treatment available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

ABC-powder
Carbon dioxide (CO₂).
Dry sand
Nitrogen

Extinguishing media which must not be used for safety reasons

Water spray.
Full water jet

5.2 Special hazards arising from the substance or mixture

Non-combustible toxic substances.

Product is non-flammable. Adapt fire and explosion protection measures to the combustible substances in the area.

Fire may produce irritating, corrosive and/or toxic gases.

In case of fire may be liberated:

Hydrogen chloride (HCl)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.

Special protective equipment for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Co-ordinate fire-fighting measures to the fire surroundings.

In case of fire: Evacuate area.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Use personal protective equipment as required. Remove victim out of the danger area. For emergency responders: In case of fire: Wear self-contained breathing apparatus.

Substance is non-flammable. Adapt fire and explosion protection measures to the combustible substances in the area. In case of major fire and large quantities: Fight fire with normal precautions from a reasonable distance.

6.2 Environmental precautions

No special environmental measures are necessary.

6.3 Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal. Rinse affected areas with water.

Dispose according to local legislation.

6.4 Reference to other sections

Personal protection equipment: see section 8 Disposal information: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling

Wear personal protection equipment (refer to section 8).

Avoid contact with eyes and skin.

Measures to prevent fire, aerosol and dust generation

No special measures are necessary.

Measures required to protect the environment

Avoid release to the environment.

Wash hands before breaks and after work. Avoid contact with eyes and skin. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

7.2 Conditions for safe storage, including any incompatibilities

Recommended storage temperature: <15 °C

Storage: Store in a dry place. Store in a closed container. Keep/Store only in original container. Packaging materials: Glass High density polyethylene (HDPE) Unsuitable materials and coatings of

containers/equipment: No further relevant information available.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Does not contain substances above concentration limits fixing an occupational exposure limit.

Recommended monitoring procedures:

European Standard EN 14042 (Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents)

European Standard EN 482 (Workplace exposure. Procedures for the determination of the concentration of chemical agents - Basic performance requirements)

Ordinance of the Minister of Health of 2 February 2011 on tests and measurements of factors harmful to health in the working environment (consolidated text Dz.U. 2023, item 419)

8.2 Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used.

Personal protection equipment

Wear suitable protective clothing. When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.

Eye/face protection

Eye glasses with side protection DIN-/EN-Norms EN 166

Skin protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. Recommended glove articles DIN-/EN-Norms EN ISO 374 In the case of wanting to use the gloves again, clean them before taking off and air them well.

By short-term hand contact

Suitable material:	NBR (Nitrile rubber)
Thickness of the glove material:	0,12 mm
Breakthrough time	> 480 min

By long-term hand contact

Suitable material:	NBR (Nitrile rubber)
Thickness of the glove material:	0,38 mm
Breakthrough time	> 480 min

Respiratory protection

Usually no personal respirative protection necessary. Required when dusts are generated.

Generation/formation of dust

Suitable respiratory protection apparatus:	Filtering Half-face mask (EN 149)
Recommendation	VWR 111-0451
Suitable material	P3
Recommendation	VWR 111-0244

Additional information

Wash hands before breaks and after work. Avoid contact with eyes and skin. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

Environmental exposure controls

no data available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state:	solid
Colour:	white
Odour:	no data available

Safety relevant basic data

pH:	5-7 (50 g/l; H ₂ O; 20 °C)
Melting point/freezing point:	29.54 °C
Initial boiling point and boiling range:	no data available
Flash point:	no data available
Flammability:	no data available
Lower and upper explosion limit	
Lower explosion limit:	no data available
Upper explosion limit:	no data available
Vapour pressure:	no data available
Relative vapour density:	no data available
Density and/or relative density	
Density:	1.71 g/cm ³ (25 °C)
Solubility(ies)	
Water solubility:	soluble (20 °C)
Partition coefficient: n-octanol/water:	no data available
Auto-ignition temperature:	no data available
Decomposition temperature:	Not applicable
Viscosity	
Kinematic viscosity:	no data available
Dynamic viscosity:	no data available
Particle characteristics:	no nanoform

9.2 Other information

Evaporation rate:	no data available
Explosive properties:	Not applicable
Oxidising properties:	Not applicable
Bulk density:	no data available
Refraction index:	no data available
Dissociation constant:	no data available
Surface tension:	no data available
Henry's Law Constant:	no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is non-reactive under normal conditions.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

No further relevant information available.

10.4 Conditions to avoid

No further relevant information available.

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute effects

Acute oral toxicity:

Based on available data, the classification criteria are not met.

LD50: > 1000 mg/kg - Rat - (CHP)

Acute dermal toxicity:

Based on available data, the classification criteria are not met.

Acute inhalation toxicity:

Based on available data, the classification criteria are not met.

Irritant and corrosive effects:

Primary irritation to the skin:

Not applicable

Irritation to eyes:

Causes serious eye irritation.

Irritation to respiratory tract:

Not applicable

Respiratory or skin sensitisation

In case of skin contact: not sensitising

After inhalation: not sensitising

STOT-single exposure

Not applicable

STOT-repeated exposure

Not applicable

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**Carcinogenicity**

No indication of human carcinogenicity.

Germ cell mutagenicity

No indications of human germ cell mutagenicity exist.

Reproductive toxicity

No indications of human reproductive toxicity exist.

Aspiration hazard

Not applicable

Other adverse effects

no data available

Additional information

no data available

11.2 Information on other hazards

This substance does not have endocrine disrupting properties with respect to humans.

SECTION 12: Ecological information

12.1 Toxicity**Fish toxicity:**

no data available

Daphnia toxicity:

no data available

Algae toxicity:

no data available

Bacteria toxicity:

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water: no data available

12.4 Mobility in soil:

no data available

12.5 Results of PBT/vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6 Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to the environment.

12.7 Other adverse effects

no data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Appropriate disposal / Product

Dispose according to local legislation. Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package

Dispose according to local legislation. Handle contaminated packages in the same way as the substance itself.

Additional information

European waste management legislation
Directive 2008/98/EC (Waste Framework Directive)

National waste management legislation
No further relevant information available.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1 UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2 UN proper shipping name:	not assigned
14.3 Transport hazard class(es):	none
14.4 Packing group:	not assigned
14.5 Environmental hazards:	none
14.6 Special precautions for user:	none

Sea transport (IMDG)

14.1 UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2 UN proper shipping name:	not assigned
14.3 Transport hazard class(es):	none
14.4 Packing group:	not assigned
14.5 Environmental hazards:	none
14.6 Special precautions for user:	none
14.7 Maritime transport in bulk according to IMO instruments:	not relevant

Air transport (ICAO-TI / IATA-DGR)

14.1 UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2 UN proper shipping name:	not assigned
14.3 Transport hazard class(es):	none
14.4 Packing group:	not assigned
14.5 Special precautions for user:	none

SECTION 15: Regulatory information

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

EU legislation

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Text with EEA relevance)
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance)
- Commission Regulation (EU) 2020/878 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

National regulations

no data available

Water hazard class: slightly hazardous to water

15.2 Chemical Safety Assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Abbreviations and acronyms

ACGIH - American Conference of Governmental Industrial Hygienists
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
AGS - Committee on Hazardous Substances (Ausschuss für Gefahrstoffe)
CLP - Regulation on Classification, Labelling and Packaging of Substances and Mixtures
DFG - German Research Foundation (Deutsche Forschungsgemeinschaft)
DNEL - Derived No Effect Level
Gestis - Information system on hazardous substances of the German Social Accident Insurance (Gefahrstoffinformationssystem der Deutschen Gesetzlichen Unfallversicherung)
IATA-DGR - International Air Transport Association-Dangerous Goods Regulations
ICAO-TI - International Civil Aviation Organization-Technical Instructions
IMDG - International Maritime Code for Dangerous Goods
KOSHA - Korea Occupational Safety and Health Agency
LTV - Long Term Value
NIOSH - National Institute for Occupational Safety and Health
OSHA - Occupational Safety & Health Administration
PBT - Persistent, Bioaccumulative and Toxic
PNEC - Predicted No Effect Concentration
RID - Regulation concerning the International Carriage of Dangerous Goods by Rail
STV - Short Term Value
SVHC - Substances of Very High Concern
vPvB - very Persistent, very Bioaccumulative

Training advice: Provide adequate information, instruction and training for operators.

Key literature references and sources for data

This Safety Data Sheet has been prepared based on information available for public as TOXNET information, European Chemicals Agency (ECHA) substance dossier, papers from international cancer research institutes (IARC Monographs), U.S. National Toxicology Program data, U.S. Agency for Toxic Substances and Disease Control (ATSDR), PubChem websites and SDS from our raw material manufacturers.

Additional information

Indication of changes: Section 11

If you need an explanation of the change, contact the supplier
(SDS@avantorsciences.com).

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