



Calcium Chloride

AGent

AGent SDS: Calcium Chloride [2026.01]

Version No: 2026.01

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Hazard Alert Code: 1

Issue Date: June 2026

Print Date: (auto-fills on print)

AGENT.GHS.AUS.EN.E

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

Product Identifier

Product name	Calcium Chloride
Chemical Name	Calcium chloride (dihydrate)
Synonyms	Calcium dichloride; calcium chloride mono- & dihydrate; CaCl_2
Proper shipping name	CALCIUM CHLORIDE (Not classified as a Dangerous Good)
Chemical formula	$\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$
Other means of identification	Calcium Chloride [2026.01]

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

Identified uses	Swimming pool chemical; calcium hardness increaser; water treatment.
Uses advised against	Not for human consumption other than approved food-grade applications.

Details of the manufacturer or supplier of the safety data sheet

Registered company name	AGent Sales & Services Pty Ltd
Address	38 May Holman Drive, Bassendean WA 6054, Australia
Telephone	(+61 8) 6270 4500 / 1300 833 844
Website	agentsales.com.au
Email	admin@agentsales.com.au

Emergency telephone number

Association / Organisation	Hazrad (outside 24-hour emergency response provider)
Emergency telephone numbers	08 9418 4200 (24-hour) — answered by Hazrad on AGent's behalf
Other emergency telephone numbers	Poisons Information Centre 131 126 (Australia) / 0800 764 766 (NZ)

SECTION 2 Hazards identification

Classification of the substance or mixture

HAZARDOUS CHEMICAL. NOT a Dangerous Good. Classified as an eye irritant under the GHS; not classified as a Dangerous Good under the ADG Code.

Poisons Schedule (SUSMP)	Not Scheduled (SUSMP — not listed)
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Classification

- Serious Eye Damage/Eye Irritation Category 2A — H319

Label elements

Hazard pictogram(s)	
Signal word	WARNING

Hazard statement(s)

- H319 — Causes serious eye irritation.

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

- P264 — Wash exposed skin thoroughly after handling.
- P280 — Wear eye protection / face protection.

Precautionary statement(s) 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.
- P337+P313 — If eye irritation persists: Get medical advice.

Precautionary statement(s) Storage

- P402+P404 — Store in a dry place, in a closed container (hygroscopic).

Precautionary statement(s) Disposal

- P501 — Dispose of contents/container in accordance with local, state and federal regulations.

Other hazards

Hygroscopic. Reacts violently (violent boiling) with water, generating heat. Solutions attack some metals.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures.

Mixtures

CAS No.	% [weight]	Name	Classification
10035-04-8	99	Calcium chloride dihydrate	Eye Irrit. 2A (H319)

SECTION 4 First aid measures

Description of first aid measures

Eye Contact

Immediately flush eyes with plenty of water for at least 15 minutes, holding eyelids open. If irritation persists, see a doctor.

Skin Contact

Remove contaminated clothing and shoes. Wash affected area with soap and plenty of water. If irritation persists, seek medical attention.

Inhalation

Inhalation of dust is not likely to present an acute hazard. Move to fresh air if dust is inhaled.

Ingestion

Rinse mouth thoroughly with water. Give plenty of water to drink. Do NOT induce vomiting. Seek medical advice if effects persist. Contact the Poisons Information Centre (Australia 131 126; New Zealand 0800 764 766).

Most important symptoms and effects, both acute and delayed

Eye contact causes irritation, redness, pain and conjunctivitis (severe if skin/eye is wet — exothermic on contact with moisture). Skin contact may cause irritation / dermatitis. Ingestion may cause nausea and diarrhoea.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Contact the Poisons Information Centre (Australia 131 126; New Zealand 0800 764 766).

First Aid facilities

Eye wash facilities and a safety shower must be available in any area where this product is handled.

SECTION 5 Firefighting measures

Extinguishing media

Non-flammable solid. Use extinguishing media appropriate to the surrounding fire.

Special hazards arising from the substance or mixture

Fire Incompatibility

Hygroscopic. Reacts violently with water generating heat. Negligible dust explosion hazard.

Advice for firefighters

Fire Fighting

Fire fighters should wear positive-pressure self-contained breathing apparatus (SCBA) and protective clothing.

Fire / Explosion Hazard

Non-combustible solid. Not a significant fire hazard.

HAZCHEM Code	None allocated
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SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See Section 8 for personal protective equipment requirements.

Wear respiratory protection (dust). Avoid inhalation and contact with skin / eyes. Use PPE per Section 8.

Environmental precautions

Prevent product entering drains or waterways. If contamination occurs, advise local emergency services. See Section 12.

Methods and material for containment and cleaning up

Minor Spills

Avoid dust generation. Contain and sweep / shovel with dust-binding material or use an industrial vacuum cleaner. Transfer to a labelled container. Dispose of per Section 13.

Major Spills

Contain and collect into labelled containers for disposal per Section 13. Avoid dust. Wear PPE.

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling

Ensure an eye bath and safety shower are available. Avoid contact with eyes, skin and clothing. Do not inhale dust. Wash thoroughly after handling. Take precautions against static discharge.

Other information

Keep dry — hygroscopic. Add to water carefully (exothermic).

Conditions for safe storage, including any incompatibilities

Suitable container

Store in the original container, tightly closed, in a cool, dry, well-ventilated area. Protect against physical damage. Keep dry (hygroscopic).

Storage incompatibility

Incompatible with moisture (exothermic). Solutions attack some metals. Store away from incompatible materials (see Section 10).

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

Reference: Safe Work Australia, "Workplace Exposure Limits for Airborne Contaminants" (April 2024) by Safe Work Australia.

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
SWA WEL 2024	Inspirable dust (not otherwise specified)	Calcium chloride dust	10 mg/m ³ (inhalable dust, n.o.s.)	Not assigned in SWA WEL 2024	Not assigned in SWA WEL 2024	No specific WEL for calcium chloride; dust-n.o.s. limit applied.
SWA WEL 2024	Respirable dust (not otherwise specified)	Calcium chloride dust	3 mg/m ³ (respirable dust, n.o.s.)	Not assigned in SWA WEL 2024	Not assigned in SWA WEL 2024	Dust-n.o.s. limit applied.

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
Calcium chloride	Not established (DOE PAC)	Not established (DOE PAC)	Not established (DOE PAC)
Ingredient	Original IDLH		Revised IDLH
Calcium chloride	Not established (NIOSH)		Not established (NIOSH)

MATERIAL DATA

No whole-mixture occupational exposure data are available; manage on a per-component basis (above).

Exposure controls

Appropriate engineering controls

Apply the hierarchy of controls (WHS Reg 36). Where elimination or substitution is not reasonably practicable: provide local exhaust ventilation at points of vapour / mist generation; use closed transfer systems where possible; ensure general ventilation is adequate to keep airborne concentrations below the applicable WEL. Document the risk assessment supporting the chosen control hierarchy.

Individual protection measures, such as personal protective equipment

Eye and face protection

Safety glasses with side shields (AS/NZS 1336 & 1337) as a minimum. Chemical goggles and a face shield (AS/NZS 1336 & 1337) where splash potential exists.

Skin protection

See Hand protection below.

Hands/feet protection

Wear protective gloves (rubber / PVC, per AS/NZS 2161), long-sleeved clothing and safety footwear. Inspect gloves before use; dispose of contaminated gloves and wash hands. Safety glasses / splash goggles; P1 / P2 dust respirator where dust risk exists.

Body protection

See Other protection below.

Other protection

Long-sleeved chemical-resistant protective clothing and apron (PVC or equivalent)

Respiratory protection

If a risk assessment indicates an inhalation risk exists, wear a half-face or full-face respirator with appropriate filter (selection per AS/NZS 1715; respirator per AS/NZS 1716). Specific cartridge / canister recommendation to be confirmed during respiratory protection risk assessment per AS/NZS 1715.

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Property	Value
Appearance	Solid — colourless to white
Physical state	Solid
Odour	Odourless
Odour threshold	No data available in source SDS
pH (as supplied)	7.0 (typical)
Melting point / freezing point (°C)	772 °C (anhydrous)
Initial boiling point and boiling range (°C)	1670 °C (anhydrous)
Flash point (°C)	Not applicable — non-combustible solid
Evaporation rate	Not applicable — solid
Flammability	Not flammable
Upper Explosive Limit (%)	Not applicable
Lower Explosive Limit (%)	Not applicable
Vapour pressure (kPa)	Not applicable — solid
Solubility in water	Soluble (exothermic)
Vapour density (Air = 1)	Not applicable — solid
Relative density (Water = 1)	2.15 g/cm ³
Partition coefficient n-octanol/water	Not applicable — ionic compound
Auto-ignition temperature (°C)	Not applicable — non-combustible
Decomposition temperature (°C)	No data available in source SDS
Viscosity (cSt)	Not applicable — solid
Molecular weight (g/mol)	147.01 g/mol (dihydrate)
Taste	Not applicable — do not taste
Explosive properties	Negligible dust explosion hazard
Oxidising properties	None
Surface Tension (dyn/cm or mN/m)	Not applicable — solid
Volatile Component (% vol)	Not applicable — solid
Gas group	Not applicable
pH as a solution (1%)	Approximately 7-8 (1% solution)
VOC g/L	0 g/L — inorganic solid; no VOC

SECTION 10 Stability and reactivity

Reactivity	Hygroscopic. Reacts violently with water generating heat. See Section 7.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Reactive with moisture. Hazardous polymerisation will not occur.
Conditions to avoid	Moisture; heat; dust generation; direct sunlight.
Incompatible materials	See Section 7. Moisture; reactive metals (solutions attack some metals).
Hazardous decomposition products	See Section 5. Reacts violently with water generating heat.

SECTION 11 Toxicological information

Information on toxicological effects

Inhaled

Dust may cause mucous-membrane irritation and coughing; severe upper-respiratory irritation possible.

Ingestion

May cause irritation and digestive discomfort — nausea and diarrhoea.

Skin Contact

May cause irritation / dermatitis; severe irritation and possible burns if skin is wet (exothermic).

Eye

Serious eye irritant (H319) — redness, pain, conjunctivitis; possible transient corneal injury.

Chronic

No specific chronic-effect data for the product in the source SDS.

Per-ingredient toxicity

Ingredient	TOXICITY	IRRITATION
Calcium chloride	Oral LD50 (rat): 1,000 mg/kg; Oral LD50 (mouse): 1,940 mg/kg	Eye irritant (H319); skin / respiratory irritant
Not applicable	Not applicable	Not applicable

Hazard checklist (whole-product classification basis)

Hazard endpoint	Classified	Hazard endpoint	Classified
Acute Toxicity	—	Carcinogenicity	—
Skin Irritation/Corrosion	—	Reproductive Toxicity	—
Serious Eye Damage/Irritation	✓	STOT — Single Exposure	—
Respiratory or Skin Sensitisation	—	STOT — Repeated Exposure	—
Mutagenicity	—	Aspiration Hazard	—

Legend: ✓ = Data available to make classification; — = Data either not available or does not fill the criteria for classification.

Information on possible routes of exposure

Absorbed by inhalation of dust, ingestion, skin and / or eye contact.

Additional Information

RTECS	Not available
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SECTION 12 Ecological information

Toxicity

Ingredient	Endpoint	Test Duration	Species	Value	Source
Calcium chloride	LC50	96 hr	Fish (general)	100 mg/L	AGent SDS
Calcium chloride	Degradation	Not applicable	Not applicable	Degradation products are less toxic than the product itself	AGent SDS

Environmental precaution: Prevent entry to drains, waterways and soak-aways. Notify the relevant Environmental Protection Authority if waterway contamination occurs.

Persistence and degradability

Ingredient	Persistence: Water / Soil	Persistence: Air
Calcium chloride	Not applicable in the OECD biodegradation sense — inorganic salt; dissociates to calcium and chloride ions.	Not applicable — non-volatile solid.

Bioaccumulative potential

Ingredient	Bioaccumulation
Calcium chloride	Not expected to bioaccumulate (ionic compound).

Mobility in soil

Ingredient	Mobility
Calcium chloride	High mobility in water (soluble).

Other adverse effects

Elevated dissolved-salt / chloride load may affect sensitive freshwater organisms. Avoid uncontrolled discharge to waterways.

SECTION 13 Disposal considerations**Waste treatment methods****Product / Packaging disposal**

- Recycle wherever possible.
- Ensure waste disposal conforms to all relevant local, state and federal authority waste disposal regulations.
- Do NOT discharge into sewers or waterways.
- Empty containers should be returned via AGent's Closed Loop container return program where applicable.
- Whatever cannot be saved for recovery or recycling should be managed through an approved waste disposal facility.
- Dispose of in accordance with local, state and federal regulations. Low-hazard inorganic salt.

SECTION 14 Transport information

Labels Required	Not Applicable — Not a Dangerous Good
Marine Pollutant	No
HAZCHEM Code	None allocated

Land transport (ADG)

UN number	Not Applicable — Not classified as a Dangerous Good
UN proper shipping name	CALCIUM CHLORIDE (Not classified as a Dangerous Good)
Transport hazard class(es)	Not classified as a Dangerous Good by the criteria of the ADG Code for transport by road or rail
Packing group	Not Applicable
Environmental hazard	Not Applicable
Special precautions for user	None allocated — Not a Dangerous Good.
ERG / EIP number	Not Applicable — Not a Dangerous Good

Air transport (ICAO-IATA / DGR)

UN number	Not Applicable — Not classified as a Dangerous Good
UN proper shipping name (lowercase)	Calcium chloride (Not classified as a Dangerous Good)
ICAO/IATA Class	Not classified as a Dangerous Good by the criteria of the IATA Code for transport by air
Packing group	Not Applicable
Environmental hazard	Not Applicable
Special provisions	Not Applicable — Not a Dangerous Good.
Cargo Only Packing Instructions	Not Applicable — AGent does not transport this product by air. Refer to land transport (ADG) above for the applicable classification.
Cargo Only Max Qty/Pack	Not Applicable — AGent does not transport this product by air. Refer to land transport (ADG) above for the applicable classification.
Passenger and Cargo Packing Instructions	Not Applicable — AGent does not transport this product by air. Refer to land transport (ADG) above for the applicable classification.
Passenger and Cargo Max Qty/Pack	Not Applicable — AGent does not transport this product by air. Refer to land transport (ADG) above for the applicable classification.

Sea transport (IMDG-Code / GGVSee)

UN number	Not Applicable — Not classified as a Dangerous Good
UN proper shipping name	CALCIUM CHLORIDE (Not classified as a Dangerous Good)
IMDG Class	Not classified as a Dangerous Good by the criteria of the IMDG Code for transport by sea
Packing group	Not Applicable
Environmental hazard	Not a Marine Pollutant
EMS Number	Not Applicable — Not a Dangerous Good
Special provisions	Not Applicable — Not a Dangerous Good.

Transport in bulk according to MARPOL Annex II and the IBC Code

Not Applicable — AGent does not transport this product in bulk by sea.

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
Calcium Chloride	Not Applicable — AGent does not transport this product in bulk by sea.

Transport in bulk in accordance with the IGC Code

Product name	Ship Type
Calcium Chloride	Not Applicable — AGen does not transport this product in bulk by sea.

SECTION 15 Regulatory information**Safety, health and environmental regulations / legislation specific for the substance or mixture**

CALCIUM CHLORIDE (CAS 10043-52-4 anhydrous / 10035-04-8 dihydrate) is found on / assessed against the following regulatory lists:

- Australia Hazardous Chemical Information System (HCIS): Eye Irrit. 2A
- Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP): Not listed
- Australian Inventory of Industrial Chemicals (AIIC): Listed
- IARC Group classification: Not classified
- Schedule 10 of the model WHS Regulations (prohibited / restricted carcinogens): Not listed
- Schedule 14 of the model WHS Regulations (health monitoring trigger): Not listed

Additional Regulatory Information

Subject to: Work Health and Safety (General) Regulations 2022 (WA); "Workplace Exposure Limits for Airborne Contaminants" (April 2024) by Safe Work Australia; Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code) current edition.

National Inventory Status

Country / Inventory	Listed
Australia (AIIC / AICS)	Yes
Canada (DSL)	Not applicable — AGen does not export this product
Canada (NDSL)	Not applicable — AGen does not export this product
China (IECSC)	Not applicable — AGen does not export this product
Europe (EINECS / ELINCS / NLP)	Not applicable — AGen does not export this product
Japan (ENCS)	Not applicable — AGen does not export this product
Korea (KECI)	Not applicable — AGen does not export this product
New Zealand (NZIoC)	Not applicable — AGen does not export this product
Philippines (PICCS)	Not applicable — AGen does not export this product
USA (TSCA)	Not applicable — AGen does not export this product
Taiwan (TCSI)	Not applicable — AGen does not export this product
Mexico (INSQ)	Not applicable — AGen does not export this product
Vietnam (NCI)	Not applicable — AGen does not export this product
Russia (FBEPH)	Not applicable — AGen does not export this product

Legend: Yes = All CAS declared ingredients are on the inventory; No = One or more CAS listed ingredients are not on the inventory (may be exempt or require registration).

SECTION 16 Other information

Revision Date	June 2026
Initial Date	June 2026 (AGent 2026 format)

SDS Version Summary

Version	Date of Update	Sections Updated
2026.01 (AGent 2026 format)	June 2026	Reformatted from legacy V2.2 to AGent 2026 layout. §8 updated to SWA WEL 2024 (dust n.o.s.); removed superseded legacy abbreviations and exposure-standard references; AICS updated to AIIC. Classification unchanged (Eye Irrit. 2A; Non-DG).
V2.2 (legacy AGent format)	March 2023	Older format. Eye Irrit. 2A; Non-Dangerous Goods.

Other information

This SDS is intended as a hazard communication tool to assist in workplace Risk Assessment. It is not an Australian Standard or a definitive document.

Definitions and abbreviations

Abbreviation	Definition
ADG	Australian Dangerous Goods Code
AICS / AIIC	Australian Inventory of Industrial Chemicals (formerly AICS)
AUH	Additional / Australian Hazard statements
BCF	Bioconcentration Factor
BEI	Biological Exposure Index
CAS	Chemical Abstracts Service Registry Number
DNEL	Derived No Effect Level
DSEN	Dermal sensitiser (SWA WEL 2024 notation)
EC50	Effect Concentration causing effect in 50% of test population
EMS	IMDG Emergency Schedule
ERG / EIP	Emergency Response Guide / Emergency Information Panel (SAA/SNZ HB76)
ES	Exposure Standard (legacy term — now WEL)
GHS	Globally Harmonised System of Classification and Labelling
HCIS	Hazardous Chemical Information System (Safe Work Australia)
IARC	International Agency for Research on Cancer
IDLH	Immediately Dangerous to Life or Health
LC50	Lethal Concentration causing death in 50% of test population
LD50	Lethal Dose causing death in 50% of test population
LOAEL	Lowest Observed Adverse Effect Level
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
OEL	Occupational Exposure Limit
OTO	Ototoxic (SWA WEL 2024 notation)
PC-STEL	Permissible Concentration — Short Term Exposure Limit
PC-TWA	Permissible Concentration — Time Weighted Average
PNEC	Predicted No Effect Concentration
RSEN	Respiratory sensitiser (SWA WEL 2024 notation)
SDS	Safety Data Sheet
Sk	Skin notation — absorption through the skin a significant route
STEL	Short Term Exposure Limit (15 min TWA)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TEEL	Temporary Emergency Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average (8 hr / 40 hr week)
WEL	Workplace Exposure Limit (Safe Work Australia, April 2024)
WHS	Work Health and Safety

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