

SDS no. ZY8V2674 • Version 1.0 • Date of issue: 2023-11-10

GHS Product identifier

Product name	ALUMINIUM CHLORIDE Hexahydrate
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ALUMINIUM CHLORIDE Hexahydrate AR
Aluminium chloride hydrated
Aluminium trichloride hexahydrate
Aluminium chloride hydrate

Pharmaceuticals, cosmetics, antiperspirants, pigments, roofing granules, special papers, photography, textiles (wool), preserving wood, disinfecting stables, refining crude oil and laboratory reagent.

Supplier's details

Name	ChemSupply Australia Pty Ltd
Address	38-50 Bedford Street 5013 Gillman South Australia Australia

Telephone 08 8440 2000
email www.chemsupply.com.au

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Serious eye damage/eye irritation, Cat. 2A

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- Skin corrosion/irritation, Cat. 2

GHS label elements, including precautionary statements

Pictograms



Signal word

Warning

Hazard statement(s)

H315

Causes skin irritation

H319

Causes serious eye irritation

Precautionary statement(s)

P264

Wash hands thoroughly after handling.

P280

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

P302+P352

IF ON SKIN: Wash with plenty of water/soap

P305+P351+P338

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

P332+P313

If skin irritation occurs: Get medical advice/attention.

P337+P313

If eye irritation persists: Get medical advice/attention.

P362+P364

Take off contaminated clothing and wash it before reuse.

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight: 241.43

Components

Component	CAS no.	Concentration
Aluminum chloride hexahydrate	7784-13-6	100 % (weight)
CLASSIFICATIONS: Serious eye damage/eye irritation, Cat. 2A; Skin corrosion/irritation, Cat. 2. HAZARDS: H315 - Causes skin irritation; H319 - Causes serious eye irritation.		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice

First Aid Facilities: Maintain eyewash fountain in work area.

If inhaled

Remove victim to fresh air. If rapid recovery does not occur, obtain medical attention.

In case of skin contact

Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. If persistent irritation occurs, obtain medical attention.

In case of eye contact

Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. In all cases of eye contamination it is a sensible precaution to seek medical advice.

If swallowed

Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice if effects persist.

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically based on judgement of doctor and individual reactions of the patient.

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Non-combustible. Use measures suitable for extinguishing surrounding fire.

Specific hazards arising from the chemical

Material does not burn. Fire or heat may produce irritating, poisonous and/or corrosive gases. Containers may explode when heated. Runoff may pollute waterways.

Special protective actions for fire-fighters

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid inhalation, contact with skin, eyes and clothing.

Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up

Sweep up (avoid generating dust) and remove to a suitable, clearly labelled container for disposal in accordance with local regulations.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid ingestion and inhalation of material. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated contact with skin, eyes and clothing .

Conditions for safe storage, including any incompatibilities

Store in a cool,dry place. Keep containers closed at all times.

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

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The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Hand Protection: Rubber or plastic recommended. Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection

Body Protection: Wear suitable protective clothing and gloves to prevent skin contact. Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Respiratory protection

Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Solid
Appearance	White or yellowish, deliquescent, crystalline powder.
Color	No data available.
Odor	Nearly odourless.
Odor threshold	No data available.
Melting point/freezing point	~100 °C (decomposes).
Boiling point or initial boiling point and boiling range	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	~2.5 - 3.5 (50 g/l, H ₂ O, 20 °C)
Kinematic viscosity	No data available.
Solubility	Solubility in Water: 1330 g/l (20 °C) Solubility in Organic Solvents: Soluble in alcohol, ether and glycerol.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 2.4
Relative vapor density	No data available.
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

Other Information: Sweet astringent taste.

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Chemical stability

Stable.

Possibility of hazardous reactions

Hazardous Polymerization: Will not occur.

Conditions to avoid

Moisture. Exposure to air. Incompatibles. Decomposes upon exposure to air. Strong heating.

Incompatible materials

Strong oxidizing agents. Strong acids.

Hazardous decomposition products

Toxic hydrogen chloride fumes.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Acute Toxicity - Oral: LD50 (rat) 3311 mg/kg (IUCLD)

Ingestion: May cause severe gastrointestinal tract irritation of mucous membranes in the mouth, pharynx, oesophagus with symptoms including nausea, vomiting, abdominal spasms and possible burns. Large amounts may lead to senile dementia.

Inhalation: May cause irritation to respiratory tract and mucous membranes.

Skin corrosion/irritation

Skin: Irritating to skin. Harmful if absorbed.

Serious eye damage/irritation

Eye: Irritating to eyes.

Respiratory or skin sensitization

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

Summary of evaluation of the CMR properties

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No data available.

Specific target organ toxicity (STOT) - single exposure

Not classified as specific target organ toxicant, single exposure.

Specific target organ toxicity (STOT) - repeated exposure

Not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

No data available.

Additional information

Aluminum chloride hexahydrate: LD50/LC50:

CAS# 7784-13-6:

Oral, mouse: LD50 = 1990 mg/kg;

Oral, rat: LD50 = 3311 mg/kg;

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Epidemiology: Several mortality studies of aluminum reduction plant workers have showed no excess deaths due to organic brain disorders of the dementia type.

SECTION 12: Ecological information

Toxicity

Harmful effect due to pH shift.

Acute Toxicity - Fish: LD50 (Gambusia affinis): 27.1 mg/l 96h (IUCLID)

[8Y] Acute Toxicity - Daphnia: EC50 (Daphnia magna): 27.3 mg/l 38h

Persistence and degradability

No data available.

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

Results of PBT and vPvB assessment

No data available.

Endocrine disrupting properties

No data available.

Other adverse effects

No data available.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: NS

SECTION 16: Other information

Further information/disclaimer

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)

