

OMEGA CHEMICALS

Manufacturers of Aluminium Sulphate – Suppliers of Industrial Chemicals



Liquid Aluminium Chlorohydrate

Issued: 23 August 2022

Version: 6

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SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	LIQUID ALUMINIUM CHLOROHYDRATE
Other Names:	Aluminium Chloride Hydroxide, Aluminium Chlorohydrate, Aluminium Hydroxychloride, Aluminium Chlorohydroxide.
Manufacturers Product Code:	MegaPac 23™.
Recommended use of the chemical and restrictions on use:	Flocculent for the treatment of municipal water supplies, waste water and industrial effluents; removal of phosphate in sewage treatment; paper manufacture; chemical manufacture.
Supplier:	Omega Chemicals
ABN:	32 982 143 022 / A.C.N 005 032 744 T/A
Street Address:	55 FITZGERALD ROAD, LAVERTON NORTH VIC 3026
Telephone Number:	+61 3 8368 8000
Facsimile:	+61 3 8368 8020
Emergency Telephone:	1300 131 001 (24 Hours) Poisons Information Centre Australia: 131 126

2. HAZARD IDENTIFICATION

Hazard Classification:	Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS. Classified as hazardous according to Safe Work Australia; HAZARDOUS SUBSTANCE.
GHS Classification:	No available data
Signal Word (s):	No available data
Hazard Statement(s):	H320 Causes eye irritation H316 Causes mild skin irritation
Precautionary Statement(s):	
Prevention Statement(s):	P102 Keep out of reach of children P103 Read Label before use P104 Read Safety Data Sheet before use P234 Keep only in original container P264 Wash hand thoroughly after handling. P280 Wear protective gloves/protective clothing/eye protection/face protection

Response Statement(s): 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/attention.
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P362 Take off contaminated clothing and wash before use.
 P332+P313 If skin irritation occurs: Get medical advice/attention.
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do not induce vomiting.
 P313 Get medical advice/attention
 P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P262 Do not get in eyes, skin or on clothing.

Storage Statement(s): P405 Store locked up.
 P406 Store in corrosive resistant/compatible container.
 P403+P235 Store in well-ventilated place. Keep cool.

Disposal Statement(s): Dispose of contents/container according to jurisdictional regulations.

Poison Schedule (SUSMP): None Allocated

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:	CAS Number	Proportion:	Hazard Codes
Aluminium Chlorohydrate	12042-91-0	50%	-
Water	7732-18-5	Balance to 100%	

4. FIRST - AID MEASURES

For advice, contact Poisons Information Centre on 131 126 or a Doctor.

Ingestion: Immediately rinse mouth with water. Give plenty of water to drink. **DO NOT** induce vomiting. If vomiting occurs give further water. Never give anything by mouth if victim is rapidly losing consciousness. **Seek immediate medical attention.**

Eyes: Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash skin. **Seek medical assistance.**

Skin: Remove all contaminated clothing without delay. Wash skin gently and thoroughly with copious amounts of water. If irritation occurs, seek medical attention.

Inhalation: Remove the source of contamination or move the victim to fresh air; avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical attention.

Advice to Doctor: Treat symptomatically.

Additional Information

Aggravated medical conditions caused by exposure: No information available on medical conditions which are aggravated by exposure to this product. Repeated skin exposure may lead to dermatitis. Repeated ingestion of this product may cause phosphate deficiency which can weaken bones.

5. FIRE FIGHTING MEASURES

Extinguishing Media: In case of fire, use an appropriate extinguishing media (water fog or if unavailable fine water spray, foam, carbon dioxide, dry chemical powder) that is the most suitable for surrounding fire conditions. Keep containers cool with water spray. If safe to do so, remove containers from path of fire. Suppress (knock-down) gases, vapours and mists with a water spray jet.

Hazchem Code: N/A.

Specific Hazards arising from the substance or mixture:

Hazards from Combustion: Product is non-flammable and stable under normal conditions of use and storage. Under fire conditions this product may emit toxic and/or irritating vapours and gases including hydrogen chloride gas.

Flammability Conditions: Product is a non-flammable liquid.

Special Protective Precautions and Equipment for Fire Fighters: Fire fighters should wear a self-contained breathing apparatus and full protective clothing along with protective equipment. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures/Protective Equipment/Personal Precautions: Evacuate all unnecessary personnel. Work upwind. Increase ventilation. Use water spray to disperse vapours. Personnel involved in the clean-up should wear full protective clothing; self-contained breathing apparatus may be needed for prolonged periods of exposure. Avoid walking through spilled product as it may be slippery. Cover drains. Collect, bind and pump off spills.

Environmental Precautions:	Do not allow product to enter drains, sewers, waterways or soil. If contamination of drains has occurred, advise the local emergency services.
Methods and Materials for Containment and Clean Up:	Contain spilled product using absorbent (soil or sand). Prevent run off into drains, sewers waterways or soil. Collect and seal in properly labelled drums ready for appropriate disposal. Dilute remaining product with water, then carefully neutralize with lime. For large spills notify local emergency services.

7. HANDLING AND STORAGE

Precautions for Safe Handling:	Irritant liquid. Ensure an eye bath and safety shower are available and ready for use. Use only in a well-ventilated area. Prevent the build-up of mists in the work atmosphere. Avoid inhalation of mists, and skin or eye contact. Wear appropriate protective equipment to prevent inhalation, skin and eye contact when mixing and using. Ensure a high level of personal hygiene is maintained when using this product, that is, always wash hands before eating, drinking, smoking or using the toilet. Keep containers sealed when not in use.
Container Type:	Packaging must comply with requirements of Hazardous Substances (Packaging) Regulations 2001. Store in original packaging as approved by manufacturer. Store and transport in corrosion resistant containers such as rubber lined steel, PVC, fibreglass or polyethylene.
Conditions for Safe Storage, including any Incompatibles:	Store in a cool, dry, well-ventilated area out of direct sunlight. Do not store with incompatible products such as chlorite, hypochlorite, sulphite, oxidizing agents and cyanides; Do not store in metal containers, galvanized or aluminium surfaces. Do not store with any foodstuffs.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters:	
National Exposure Standards:	Aluminium Chlorohydrate: No specific exposure standard. Aluminium soluble salts (as Aluminium): AU OEL: 2 mg/m ³ .
Biological Limit Values:	No data available
Appropriate Engineering Controls:	Select suitable materials for the construction of storage tanks, containers, pipe valves and fittings. Ensure adequate ventilation. Natural ventilation should be adequate under normal use conditions. Keep containers closed when not in use in a well-ventilated area.

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Individual Protection Measures, such as Personal Protective Equipment (PPE):

- Respirator:** If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable mist filter should be used.
- Eyes:** Chemical splash goggles or safety glasses with side shields and a full-face shield as appropriate should be used.
- Hands:** Wear elbow-length gloves of impervious material, PVC or rubber should be suitable.
- Clothing:** Protective overalls, splash apron and rubber boots.

After using this product always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Core Information

Appearance:	Colourless to slightly cloudy liquid.
Formula:	$Al_2(OH)_5Cl$.
Odour:	Odourless.
pH:	2.8 – 4.0.
Vapour Pressure:	No data available.
Vapour Density:	No data available.
Boiling Point:	>100°C.
Freezing Point:	ca. -5°C.
Solubility (in Water):	Miscible.
Specific Gravity:	1.33 – 1.35 (at 20°C).
Flash Point:	N/A.
Flammability Limits (as Percent Volume in Air):	Lower Explosive Limit N/A. Upper Explosive Limit N/A.
Ignition Temperature:	No data available.

Additional Information

Specific Heat Value:	No data available.
Particle Size:	No data available.
Volatile Organic Compounds Content (VOC):	No data available.
Viscosity:	No data available.
Percent Volatile:	No data available.
Octanol/Water Partition Coefficient:	No data available.
Saturated Vapour Concentration:	No data available.
Additional Characteristics:	Insoluble in alcohol.
Flame Propagation/Burning Rate of Solid Materials:	No data available.
Properties that may Initiate or Contribute to the Intensity of a Fire:	No data available.
Potential for Dust Explosion:	N/A.
Reactions that Release Flammable Gases or Vapours:	Thermal decomposition will produce hydrogen chloride gas.
Fast or Intensely Burning Characteristics:	No data available.
Non-Flammables that Could Contribute Unusual Hazards to a Fire:	No data available.
Release of Invisible Flammable Vapours and Gases:	No data available.
Decomposition Temperature:	No data available.
Evaporation Rate:	No data available.

10. STABILITY AND REACTIVITY**Reactivity:****Chemical Stability:**

Stable under normal conditions of storage and handling. This product can hydrolyse and form a precipitate of aluminium hydroxide in very dilute aqueous solutions. The solubility is dependent on the pH.

Possibility of hazardous Reactions:	Strong aqueous solutions of the product will readily react with sodium hydroxide and other alkali to form a thick slippery paste or gel. When involved in a fire, the product will undergo thermal decomposition to produce hydrogen chloride gas.
Conditions to Avoid:	Heat-sensitive, avoid exposure to extreme heat and high temperatures. Avoid sources of ignition.
Incompatible Materials:	Avoid contact with unalloyed steels, galvanized or aluminium surfaces. Do not expose to chlorite, hypochlorite, sulphite, sodium hydroxide, alkalis, oxidizing agents and cyanides. Keep away from all foodstuffs.
Hazardous Decomposition Products:	Hydrogen chloride gas.

11. TOXICOLOGICAL INFORMATION

Toxicity Data

LD50: 13000 mg/kg (rat, oral).

Acute (short term)

Ingestion: May be harmful if swallowed. May cause abdominal pain, nausea, vomiting, bleeding stomach, incoordination, muscle spasm and kidney damage.

Eye: Can cause moderate to severe irritation and inflammation to the eyes.

Skin: Can cause irritation and stinging to open cuts and wounds.

Inhalation: This product has a very low vapour pressure at ambient temperature and therefore cannot normally be inhaled. Inhalation of mists from the product can cause sore throat, coughing and irritation of nose. High concentration of mists may cause congestion and restriction of airways.

Chronic (long term)

Skin: Repeated or prolonged exposure may cause dermatitis.

Ingestion: Repeated ingestion of this product may cause phosphate deficiency which can weaken bones.

12. ECOLOGICAL INFORMATION

Ecotoxicity: No data available.

Persistence and Degradability: No data available.

Mobility: No data available.

Additional Information

Environmental Fate (Exposure): No data available.

Bio accumulative Potential: No data available.

Other Adverse Effects: Discharge into the environment must be avoided. Avoid contaminating waterways, drains and sewers. This product is an inorganic compound. A metal hydroxide precipitate is formed during hydrolyses in the pH range 5 to 7; due to this reaction the pH of the water decreases. If phosphates are present then metal phosphate complexes may form.

13. DISPOSAL CONSIDERATIONS

Disposal Methods: Dispose of in accordance with all local, state and federal regulations. Refer to appropriate State Waste Disposal Authority. Observe local regulations. After dilution and careful neutralisation, approved liquid waste land fill site may be suitable.

Special Precautions for Landfill or Incineration: No data available.

14. TRANSPORT INFORMATION

UN Number: None allocated.

UN Proper Shipping Name: Aluminium Chloride Hydroxide.

Dangerous Goods Class: None allocated.

Subsidiary Risk: None allocated.

Packaging Group: None allocated.

Special Precautions for User: Irritant.

Hazchem Code: N/A.

APPROVED FOR AIR CARGO by IATA.

15. REGULATORY INFORMATION

Poisons Schedule: N/A.

EPG: N/A.

AICS Name: Aluminium Chloride Hydroxide.

Additional information: No data available.

16. OTHER INFORMATION

Revision Details

Reason for Revision:

Version 1	5 year review. Updated to a new format. Additional information added.
Version 2	Alignment to GHS requirements.
Version 3	Reclassified as Hazardous.
Version 4	Change SG & pH
Version 5	Section 14: IATA.
Version 6	Change in storage condition

Literature References

Chemical Rubber Company:	Handbook of Chemistry and Physics, 85 th Edition.
Safe Work Australia:	Hazardous Chemicals Information System (HCIS) Exposure Standards and GHS Classifications Data-Base, 25 June 2016.
National Transport Commission:	Australian Code for the Transport of Dangerous Goods by Road and Rail, Volume 7.

Abbreviations

CAS Number:	Chemical Abstract Service Registry Number.
GHS	Globally Harmonized System of Classification and Labelling of Chemicals.
EPG:	Emergency Procedure Guide.
LD50:	Lethal Dose 50%: The lowest concentration at which approximately 50% of test animals will die when given the specified dose by mouth.
ADG Code:	Australian Code for the Transport of Dangerous Goods by Road and Rail, Volume 7.
AICS Name:	Australian Inventory of Chemical Substances Name.
OEL:	Occupational Exposure Level.
N/A:	Not Applicable.

Disclaimer

This Safety Data Sheet is offered solely for information, consideration and investigation to determine the suitability of various health and safety precautions as may be required under the user's specific conditions and processes. All such conditions and processes are beyond the control of Omega Chemicals.

The information contained herein is based on data available to Omega Chemicals from both our own technical sources and recognised published references and is believed to be both accurate and reliable. Omega Chemicals however provides no warranties, either expressed or implied, and assumes no responsibility for the accuracy or completeness of this information.

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