

Safety Data Sheet

L-Cysteine Hydrochloride Monohydrate | Cat. No. ASF-3027 | GHS 7th Edition / WHS Regulations 2023 (Australia)

Section 1 — Identification

Product Name	L-Cysteine Hydrochloride Monohydrate
Catalogue No.	ASF-3027
CAS Number	7048-04-6
Chemical Formula	$C_3H_7NO_2S \cdot HCl \cdot H_2O$
Recommended Use	USP grade amino acid raw material for food, supplement, formulation, and laboratory/research use
Restrictions on Use	Not a therapeutic good; not intended to diagnose, treat, cure, or prevent any disease
Supplier	AuSaMicS Pty Ltd ABN 56 676 640 467
Address	36/25 Trafalgar Road, Epping, VIC 3076, Australia
Telephone	+61 412 520 598
Email	support@ausamics.com
Emergency Telephone	Poisons Information Centre: 13 11 26 (24 hours, Australia-wide)

Section 2 — Hazard(s) Identification

Classified as a hazardous chemical under the Australian WHS (Hazardous Chemicals) Regulations 2023 and GHS 7th Edition. Non-Dangerous Goods for transport purposes.



GHS Classification	Skin Corrosion/Irritation Category 2; Serious Eye Damage/Eye Irritation Category 2A; Specific Target Organ Toxicity — Single Exposure (Respiratory Tract Irritation) Category 3
Signal Word	Warning
Hazard Statements	H315 — Causes skin irritation. H319 — Causes serious eye irritation. H335 — May cause respiratory irritation.
Precautionary — Prevention	P271 — Use only outdoors or in a well-ventilated area. P261 — Avoid breathing dust/fumes. P280 — Wear protective gloves, protective clothing, eye protection and face protection. P264 — Wash all exposed external body areas thoroughly after handling.

Precautionary — 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. P312 — Call a POISON CENTER/doctor if you feel unwell. P302+P352 — IF ON SKIN: wash with plenty of water. P304+P340 — IF INHALED: remove to fresh air and keep comfortable for breathing. P332+P313 / P337+P313 — If skin or eye irritation persists, get medical advice. P362+P364 — Take off contaminated clothing and wash before reuse.

Precautionary — Storage/Disposal

P405 — Store locked up. P403+P233 — Store in a well-ventilated place; keep container tightly closed. P501 — Dispose of contents/container to an authorised hazardous or special waste collection point.

Section 3 — Composition / Information on Ingredients

Component	% w/w	CAS No.	Classification
L-Cysteine hydrochloride (monohydrate)	≥ 98%	7048-04-6	See Section 2

Note: this substance is also registered under related CAS numbers 52-89-1 (anhydrous form) and 345909-32-2, depending on hydration state and salt form.

Section 4 — First-Aid Measures

Eye Contact

Wash out immediately with fresh running water, keeping eyelids apart and moving the eyelids to ensure complete irrigation. Seek medical attention without delay if pain persists or recurs. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Skin Contact

Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention if irritation occurs.

Inhalation

Remove from contaminated area to fresh air. Lay patient down, keep warm and rested. Apply artificial respiration if not breathing. Transport to hospital or doctor without delay if symptoms are significant.

Ingestion

Do NOT induce vomiting. If vomiting occurs, lean the patient forward or place on their left side to maintain an open airway. Never give liquid to a drowsy or unconscious person. Rinse mouth with water and seek medical advice.

Advice to Physician

Treat symptomatically.

Section 5 — Fire-Fighting Measures

Suitable Extinguishing Media

Foam, dry chemical powder, carbon dioxide, BCF (where regulations permit)

Fire Incompatibility

Avoid contamination with oxidising agents (e.g. nitrates, oxidising acids, chlorine bleaches) as ignition may result

Fire / Explosion Hazard

Combustible solid. Finely divided organic dust suspended in air may form an explosive dust-air mixture; avoid generating dust clouds near ignition sources. Combustion products may include carbon monoxide, carbon dioxide, hydrogen chloride, phosgene, nitrogen oxides, and sulfur oxides.

Advice for Firefighters

Wear breathing apparatus plus protective gloves. Use water delivered as a fine spray to control fire and cool adjacent area. Prevent spillage from entering drains or waterways.

Section 6 — Accidental Release Measures

Minor Spills

Remove ignition sources. Clean up spills immediately. Avoid contact with skin and eyes. Use appropriate PPE.

Major Spills

Moderate hazard. Advise personnel in the area. Alert emergency services with location and nature of hazard. Control personal contact by wearing protective clothing.

Section 7 — Handling and Storage

Safe Handling

Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration of dust in hollows and sumps.

Suitable Container

Polyethylene or polypropylene container

Storage Incompatibility

Avoid reaction with oxidising agents

Other

Store in original containers, securely sealed, in a cool dry area protected from environmental extremes; store away from incompatible materials and foodstuff containers

Section 8 — Exposure Controls / Personal Protection

Occupational Exposure Band

Band E — $\leq 0.01 \text{ mg/m}^3$ (process-generated exposure band; potency-based classification, not a formal workplace exposure standard)

Eye/Face Protection

Safety glasses with side shields or chemical goggles

Hand Protection

Chemical protective gloves — polychloroprene, nitrile rubber, or butyl rubber suitable for undissolved dry solids

Body Protection

Overalls, PVC apron, barrier cream, skin cleansing cream

Respiratory Protection

Particulate respirator required above the relevant exposure standard multiple: P1 up to 10× ES, P2 up to 50× ES, P3 above 50× ES (AS/NZS 1715/1716 or national equivalent)

Section 9 — Physical and Chemical Properties

Appearance	White to off-white crystalline solid
Molecular Weight	175.63 g/mol
Solubility in Water	Soluble / partly miscible
pH (2.5% solution)	1.0 – 2.0
Flash Point	Not applicable
Flammability	Not applicable (combustible solid — see Section 5)

Section 10 — Stability and Reactivity

Chemical Stability	Product is considered stable under normal storage and handling conditions. Unstable in the presence of incompatible materials (oxidising agents).
Possibility of Hazardous Reactions	Hazardous polymerisation will not occur
Conditions to Avoid / Incompatible Materials	See Section 7
Hazardous Decomposition Products	See Section 5

Section 11 — Toxicological Information

Acute Toxicity (oral, rat)	LD50 > 2000 mg/kg — not classified
Acute Toxicity (dermal, rat)	LD50 > 2000 mg/kg — not classified
Skin Corrosion/Irritation	Causes skin irritation (Category 2)
Serious Eye Damage/Irritation	Causes serious eye irritation (Category 2A)
Respiratory Irritation	May cause respiratory irritation (STOT-SE Category 3). Asthma-like symptoms (reactive airways dysfunction syndrome) may persist after exposure ends in sensitive individuals.

Ingestion

May bind to the NMDA neuroreceptor; overactivation of excitatory amino acids at very high doses may affect nerve cells. Not expected to be significant at normal handling/exposure levels.

Mutagenicity

Note: this substance has been reported as mutagenic in at least one assay in the literature. Not classified as a confirmed mutagen under GHS, but handle with appropriate caution.

Carcinogenicity / Reproductive Toxicity / Aspiration Hazard

Not classified

Section 12 — Ecological Information

Endpoint	Duration	Species	Value
EC10(ECx)	72h	Algae or other aquatic plants	3.6 mg/L
EC50	72h	Algae or other aquatic plants	10.3 mg/L
LC50	96h	Fish	> 100 mg/L
EC50	48h	Crustacea	> 100 mg/L

Persistence & Degradability

Low persistence in water/soil and air

Bioaccumulative Potential

Low (LogKow = -3.05)

Mobility in Soil

Medium (KOC = 2.75)

DO NOT discharge into sewer or waterways.

Section 13 — Disposal Considerations

Disposal Method

Recycle wherever possible. Dispose of by burial in a landfill specifically licensed to accept chemical/pharmaceutical wastes, or incineration in a licensed facility. Decontaminate empty containers before disposal.

Section 14 — Transport Information

Land (ADG)

Not regulated for transport of dangerous goods

Air (IATA/ICAO)

Not regulated for transport of dangerous goods

Sea (IMDG)

Not regulated for transport of dangerous goods

Marine Pollutant

No

Section 15 — Regulatory Information

Australian Regulations

Listed on the Australian Inventory of Industrial Chemicals (AIIC). Not applicable Poisons Schedule.

International Inventories

Listed on DSL (Canada), IECSC (China), EINECS (Europe), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA), TCSI (Taiwan), NCI (Vietnam), FBEPH (Russia)

Section 16 — Other Information

Preparation Date

May 2025

Revision

Rev. 1.0

Key Data Sources

Supplier SDS (Consolidated Chemical Co., Chemwatch 5142-15, Version 4.1, Issue Date 20/08/2021); Europe ECHA Registered Substances

Disclaimer

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