



Citric Acid Monohydrate

AGent

AGent SDS: Citric Acid Monohydrate [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)

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

Product Identifier

Product name	Citric Acid Monohydrate
Chemical Name	Citric acid monohydrate
Synonyms	2-Hydroxy-1,2,3-propanetricarboxylic acid monohydrate; C ₆ H ₈ O ₇ ·H ₂ O
Proper shipping name	CITRIC ACID MONOHYDRATE (Not classified as a Dangerous Good)
Chemical formula	C ₆ H ₈ O ₇ ·H ₂ O
Other means of identification	Citric Acid Monohydrate [2026.01]

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

Identified uses	Preparation of citrates, flavouring extracts, confections and soft drinks; acidifier; dispersing / sequestering agent; water-conditioning agent; cleaning and polishing of stainless steel and other metals.
Uses advised against	Not for unprotected consumer use 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. Skin / eye / respiratory irritant; not classified as a Dangerous Good under the ADG Code.

Poisons Schedule (SUSMP)	Not Scheduled (SUSMP — none allocated)
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Classification

- Skin Corrosion/Irritation Category 2 — H315
- Serious Eye Damage/Eye Irritation Category 2A — H319
- Specific Target Organ Toxicity (Single Exposure) Category 3 — H335

Label elements

Hazard pictogram(s)	
Signal word	WARNING

Hazard statement(s)

- H315 — Causes skin irritation.
- H319 — Causes serious eye irritation.
- H335 — May cause respiratory irritation.

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

- P261 — Avoid breathing dust.
- P264 — Wash hands thoroughly after handling.
- P271 — Use only outdoors or in a well-ventilated area.
- P280 — Wear protective gloves / protective clothing / eye protection / face protection.

Precautionary statement(s) Response

- P302+P352 — IF ON SKIN: Wash with plenty of soap and water.
- P332+P313 — If skin irritation occurs: Get medical advice.
- P362 — Take off contaminated clothing and wash before reuse.
- 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.
- P304+P340 — IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P312 — Call a POISON CENTRE / doctor if you feel unwell.

Precautionary statement(s) Storage

- P403+P233 — Store in a well-ventilated place. Keep container tightly closed.
- P405 — Store locked up.

Precautionary statement(s) Disposal

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

Other hazards

Dust may form combustible dust-air mixtures.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures.

Mixtures

CAS No.	% [weight]	Name	Classification
77-92-9	> 99	Citric acid monohydrate	Skin Irrit. 2 (H315); Eye Irrit. 2A (H319); STOT SE 3 (H335)
7732-18-5	Balance (water of hydration)	Water	Not classified

SECTION 4 First aid measures

Description of first aid measures

Eye Contact

Check for and remove any contact lenses. Immediately rinse thoroughly with plenty of running water for at least 15 minutes, keeping eyelids open. If eye irritation persists, seek medical advice.

Skin Contact

Remove contaminated clothing and wash affected areas with soap and running water for at least 15 minutes. Launder clothing before reuse. If skin irritation occurs, seek medical advice.

Inhalation

Move person into fresh air. If not breathing, give artificial respiration. If rapid recovery does not occur, seek medical advice.

Ingestion

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. 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 serious irritation (tearing, stinging, redness). Skin contact causes irritation. Ingestion may irritate the GI tract (nausea, vomiting). Dust may cause respiratory irritation.

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

Water fog (or fine water spray), foam, dry chemical powder, carbon dioxide.

Special hazards arising from the substance or mixture

Fire Incompatibility

Non-combustible solid; dust may form combustible dust clouds. Decomposition produces oxides of carbon.

Advice for firefighters

Fire Fighting

Fire fighters to wear self-contained breathing apparatus (SCBA). Do NOT allow fire-fighting water to reach waterways or drains.

Fire / Explosion Hazard

Non-combustible solid; combustible-dust hazard if dispersed.

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.

Avoid breathing dust. May be slippery when spilt. Eliminate ignition sources. Increase ventilation. 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

Contain and prevent run-off. Use inert absorbent (soil, sand). Collect and seal in labelled containers for disposal per Section 13. Wash area with excess water.

Major Spills

Avoid dust generation. Collect into labelled containers for disposal per Section 13. Prevent entry to drains and waterways.

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. Take precautions against static discharge. Wash thoroughly after handling.

Other information

Keep containers closed; store away from incompatible materials.

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.

Storage incompatibility

Incompatible with strong bases and strong oxidisers. Mildly corrosive to carbon steel. 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	Citric acid	Citric acid (CAS 77-92-9)	Not assigned in SWA WEL 2024	Not assigned in SWA WEL 2024	Not assigned in SWA WEL 2024	No specific WEL for citric acid; inhalable dust n.o.s. 10 mg/m ³ / respirable 3 mg/m ³ applied.
SWA WEL 2024	Inhalable / respirable dust (n.o.s.)	Citric acid dust	10 mg/m ³ inhalable; 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
Citric acid	Not established (DOE PAC)	Not established (DOE PAC)	Not established (DOE PAC)
Ingredient	Original IDLH		Revised IDLH
Citric acid	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 impervious gloves (per AS/NZS 2161) and protective clothing appropriate to the risk. Inspect gloves before use; dispose of contaminated gloves and wash hands. Safety glasses or 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 — white powder
Physical state	Solid (powder)
Odour	Odourless
Odour threshold	No data available in source SDS
pH (as supplied)	1.5 – 2.5 (5% solution)
Melting point / freezing point (°C)	153 °C
Initial boiling point and boiling range (°C)	No data available in source SDS (decomposes)
Flash point (°C)	Not applicable — non-combustible solid
Evaporation rate	Not applicable — solid
Flammability	Not flammable (combustible dust if dispersed)
Upper Explosive Limit (%)	Not applicable
Lower Explosive Limit (%)	Not applicable
Vapour pressure (kPa)	Not applicable — solid
Solubility in water	134 g/100 g
Vapour density (Air = 1)	Not applicable — solid
Relative density (Water = 1)	1.665
Partition coefficient n-octanol/water	log Kow = -1.72 (citric acid)
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)	210.14 g/mol (monohydrate)
Taste	Not applicable — do not taste
Explosive properties	Combustible dust if dispersed
Oxidising properties	None known
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 2.2

VOC g/L	0 g/L — solid acid; no VOC
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SECTION 10 Stability and reactivity

Reactivity	No hazardous reactivity under normal conditions. See Section 7.
Chemical stability	Product is stable under normal conditions of use, storage and temperature.
Possibility of hazardous reactions	Polymerisation is not expected to occur.
Conditions to avoid	Sources of ignition; direct sunlight; extremely high temperatures; moisture.
Incompatible materials	See Section 7. Strong bases; strong oxidisers; carbon steel (mild corrosion).
Hazardous decomposition products	See Section 5. Oxides of carbon.

SECTION 11 Toxicological information

Information on toxicological effects

Inhaled

Breathing in dust / mist may produce respiratory irritation.

Ingestion

Swallowing may irritate the GI tract causing nausea, vomiting and diarrhoea.

Skin Contact

Causes skin irritation (H315) — redness, itching and pain.

Eye

Serious eye irritant (H319) — tearing, stinging, blurred vision and redness.

Chronic

No adverse chronic health effects expected when handled per this SDS.

Per-ingredient toxicity

Ingredient	TOXICITY	IRRITATION
Citric acid	Oral LD50 (rat): 3,000 mg/kg; Oral LD50 (mouse): 5,040 mg/kg	Skin / eye irritant (Skin Irrit. 2 / Eye Irrit. 2A)
Water	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 ingestion, inhalation of dust / mist, eye and skin contact.

Additional Information

RTECS	Not available
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SECTION 12 Ecological information

Toxicity

Ingredient	Endpoint	Test Duration	Species	Value	Source
Citric acid	No quantitative data in source SDS	Not Provided	Fish (general)	Source SDS notes 'highly toxic to fish; not toxic to bacteria'	AGent SDS
Citric acid	Biodegradation	Not applicable	Not applicable	Easily biodegradable	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
Citric acid	Readily biodegradable — a natural metabolic intermediate.	Not applicable — non-volatile solid.

Bioaccumulative potential

Ingredient	Bioaccumulation
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Citric acid	Not expected to bioaccumulate (log Kow -1.72; readily metabolised).
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Mobility in soil

Ingredient	Mobility
Citric acid	High mobility in water (soluble); readily biodegraded.

Other adverse effects

Low-pH in solution; avoid uncontrolled discharge to poorly-buffered 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.
- Dilute / neutralise residual material before disposal; ensure disposal conforms to local, state and federal regulations.

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	CITRIC ACID MONOHYDRATE (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)	Citric acid monohydrate (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	CITRIC ACID MONOHYDRATE (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
Citric Acid Monohydrate	Not Applicable — AGen does not transport this product in bulk by sea.

Transport in bulk in accordance with the IGC Code

Product name	Ship Type
Citric Acid Monohydrate	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**

CITRIC ACID (CAS 77-92-9) is found on / assessed against the following regulatory lists:

- Australia Hazardous Chemical Information System (HCIS): Skin Irrit. 2 / Eye Irrit. 2A / STOT SE 3
- Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP): None allocated
- 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 (Skin Irrit. 2, Eye Irrit. 2A, STOT SE 3; Non-DG).
V2.2 (legacy AGent format)	March 2023	Older format. Skin Irrit. 2 / Eye Irrit. 2A / STOT SE 3; 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

Disclaimer

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