

SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Citric Acid

Recommended Use:

Supplier: Midland Chemicals
ABN: 91 622 018 986

Street Address: 18 Elliott Street
Midvale
Western Australia

Telephone Number: +61 08 9274 1992

Facsimile: +61 08 9250 1710

Emergency Telephone: **1 800 033 111 (ALL HOURS)**

2. HAZARDS IDENTIFICATION

Road and Rail; Non Dangerous Goods according to the criteria of the Australian Dangerous Goods Code (ADG Code).

Globally Harmonised System

Hazard Classification

Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS).

Hazard Categories

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

Pictograms



Signal Word
Warning

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Hazard Statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

Precautionary Statement

Prevention

P280 Wear protective gloves/eye protection/face protection.

P261 Avoid breathing dust.

P271 Use only outdoors or in a well-ventilated area

Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P337 + P313 If eye irritation persists: Get medical advice/attention.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

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.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up

Disposal

P501 Dispose of contents/container in accordance with local / regional / national / international regulations.

Poisons Schedule: Not Scheduled

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion
Citric Acid	77-92-9	<=100%

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor at once.

Inhalation:

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Centre or doctor/physician for advice. Apply resuscitation if victim is not breathing - Administer oxygen if breathing is difficult.

Skin Contact:

IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs, get medical advice/attention.

Eye Contact:

IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical advice/attention.

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Ingestion:

IF SWALLOWED: Rinse mouth with water, then drink plenty of water. Do NOT induce vomiting. Get medical advice/attention.

Medical attention and special treatment:

Treat symptomatically.

5. FIRE FIGHTING MEASURES

General Measure

If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.

Flammability Conditions

Combustible material; May burn but does not ignite readily

Extinguishing Media:

Use dry chemical, Carbon dioxide (CO₂), foam or water spray for extinction

Fire and Explosion Hazard

Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Hazardous products of combustion:

Fire may produce irritating, toxic and/or corrosive fumes, including oxides of Carbon.

Special Fire Fighting Instructions

Contain runoff from fire control or dilution water - Runoff may pollute waterways.

Personal protective equipment:

Wear self-contained breathing apparatus (SCBA) and chemical splash suit. SCBA and structural firefighter's uniform may provide limited protection.

Flash Point

345 °C

Lower Explosion Limit

No Data Available

Upper Explosion Limit

No Data Available

Auto Ignition Temperature

No Data Available

Hazchem Code

No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure

Ensure adequate ventilation. ELIMINATE all ignition sources. Do not touch or walk through spilled material. Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing.

Clean Up Procedures

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Collect material (sweep or vacuum up) and place into suitable containers for disposal (see SECTION 13). Avoid dispersal of dust in the air (i.e. clearing dusty surfaces with compressed air). Non-sparking tools should be used.

Containment

Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Prevent dust cloud.

Decontamination

Neutralise residues with lime or soda ash; Wash away remainder with plenty of water.

Environmental Precautionary Measures

Prevent entry into drains and waterways.

Evacuation Criteria

Spill or leak area should be isolated immediately. Keep unauthorised personnel away

Personal Precautionary Measures

Use personal protective equipment as required (see SECTION 8).

7. HANDLING AND STORAGE

Handling

Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation - Use only outdoors or in a well-ventilated area. Handle in accordance with good industrial hygiene and safety practice. Minimise dust generation and accumulation. Avoid breathing dust and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Storage

Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Protect from moisture. Keep away from heat and sources of ignition - No smoking. Keep away from incompatible materials (see SECTION 10).

Container

Keep in the original container.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

General

No specific exposure standards are available for this product. For dusts from solid substances without specific occupational exposure standards: - Safe Work Australia Exposure Standard for Nuisance dusts: 8 hr TWA = 10 mg/m³ (measured as inhalable dust). - New Zealand WES for Particulates not otherwise classified: TWA = 10 mg/m³; TWA = 3 mg/m³ (respirable dust). - OSHA PEL for Particulates not otherwise regulated: TWA = 15 mg/m³ (total); TWA = 5 mg/m³ (respirable).

Exposure Limits

No Data Available

Engineering Measures

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

Personal Protection Equipment

- Respiratory protection: Wear respiratory protection in case of inadequate ventilation or if an inhalation risk exists. Recommended: Dust mask/particulate filter respirator (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Chemical goggles. - Hand protection: Wear protective gloves. Recommended: Impervious gloves. - Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Overalls, safety shoes.

Special Hazards Precautions

No information available.

Work Hygienic Practices

Do not eat, drink or smoke when 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

Physical state: Solid crystals

Colour: White

Solubility: Soluble in water (590 g/L) 20 °C

Specific Gravity: 1.665

Bulk Density:

Density:

Relative Vapour Density (air=1):

Vapour Pressure (20 °C):

Molecular weight:

Flash Point (°C): 345 °C

Flammability Limits (%): N/A

Auto Ignition Temperature (°C): N/A

Boiling Point/Melting Point (°C): Decomposes before boiling

Melting Point: ca. 153 °C

pH: 2.0 - 2.5 (1% solution)

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Potential for Dust Explosion: Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Properties That May Initiate or Contribute to Fire Intensity: Combustible material; May burn but does not ignite readily.

Reactions That Release Gases or Vapours: Fire/decomposition may produce irritating, toxic and/or corrosive fumes, including oxides of Carbon.

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10. STABILITY AND REACTIVITY

General Information	Reacts exothermically with alkalis.
Chemical Stability	Stable under normal storage and handling conditions.
Conditions to Avoid	Avoid generating dust. Keep away from heat and sources of ignition.
Materials to Avoid	Incompatible/reactive with strong oxidising agents, alkalis, carbon steel.

Hazardous Decomposition Products

Fire/decomposition may produce irritating, toxic and/or corrosive fumes, including oxides of Carbon.

Hazardous Polymerisation

Will not occur.

11. TOXICOLOGICAL INFORMATION

General Information	<ul style="list-style-type: none">- Acute toxicity: No adverse health effects expected; Swallowing (large amounts) may cause abdominal pain, nausea, vomiting and irritation to the mouth and throat. Physiological disturbances may include acidosis and calcium deficiency; The substance may have effects on the teeth, resulting in erosion.-Skin corrosion/irritation: Causes skin irritation, redness.-Eye damage/irritation: Causes serious eye irritation.-Respiratory/skin sensitisation: No evidence of sensitisation.- Germ cell mutagenicity: No evidence of mutagenicity.- Carcinogenicity: No evidence of carcinogenicity.- Reproductive toxicity: No evidence of reproductive or developmental toxicity.- STOT (single exposure): May cause respiratory irritation; Inhalation of citric acid aerosols may induce coughing and broncho-constriction [NICNAS].- STOT (repeated exposure): Not considered to cause serious damage to health from repeated (oral) exposure [NICNAS].- Aspiration toxicity: No information available.
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Acute

Ingestion Acute toxicity (Oral): - LD50, Rats: 3,000 - 12,000 mg/kg bw. [NICNAS].

Other Acute toxicity (Dermal): - LD50, Rats: >2,000 mg/kg bw. [NICNAS].

Carcinogen Category None

12. ECOLOGICAL INFORMATION

Ecotoxicity Aquatic toxicity: - LC50, Fish (*Leuciscus idus melanotus*): 440 mg/L (48 h) [ECHA].
EC50, Crustacea (*Daphnia magna*): 1,535 mg/L (24 h) mobility [ECHA].

Persistence/Degradability

Readily biodegradable.

Mobility

No information available.

Environmental Fate

Prevent entry into drains and waterways.

Bioaccumulation Potential

Low potential for bioaccumulation.

Environmental Impact

No Data Available

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13. DISPOSAL CONSIDERATIONS

General Information: Dispose of contents/container via a licensed disposal company and in accordance with local/regional/national regulations.

Special Precautions for Landfill: No information available

14. TRANSPORT INFORMATION

Road and Rail Transport

classified as Non Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON DANGEROUS GOODS.

UN No: N/A

Class-Primary: N/A

Packing Group: N/A

Proper Shipping Name: Citric acid, anhydrous

Hazchem Code: N/A

Marine Transport

classified as Non- Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON DANGEROUS GOODS.

UN No: N/A

Class-Primary: N/A

Packing Group: N/A

Proper Shipping Name: Citric acid, anhydrous

Hazchem Code: N/A

Air Transport

classified as Non-Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON DANGEROUS GOODS.

UN No: N/A

Class-Primary: N/A

Packing Group: N/A

Proper Shipping Name: Citric acid, anhydrous

Hazchem Code: N/A

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15. REGULATORY INFORMATION

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Poisons Schedule: Not Scheduled

16. OTHER INFORMATION

This material safety data sheet has been prepared by Midland Chemicals

This MSDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. No liability is accepted whether direct or indirect from its application since the conditions of final use are outside Midland Chemicals control. The end user is obliged to conform to relevant government regulations and/or patent laws applicable in their respective States of Countries.