

# CITRIC ACID

## Safety Data Sheet

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product name:** CITRIC ACID

**Synonyms**  
Citric Acid

**Product Code**  
573

**Recommended use:** Acidulant. Cleaning. Mordant. Sequestrant.

**Supplier Name** CLEAN PLUS CHEMICALS PTY LTD  
**Address** 16 George Young Street AUBURN NSW 2144  
**Telephone** 02 9738 7444  
**Fax** 02 9644 1777  
**Emergency** 1800 201 700  
**Email** customerservice@cleanplus.com.au  
**Web Site** www.cleanplus.com.au  
**SDS Date** 22 September 2016 Version 1.1

### 2. HAZARDS IDENTIFICATION

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.

This material is hazardous according to Safe Work Australia; HAZARDOUS SUBSTANCE.

**SIGNAL WORD:** DANGER



**Hazard Statement(s):**  
H318 Causes serious eye damage.

**Precautionary Statement(s):**

**Prevention:**  
P280 Wear protective gloves / protective clothing / eye protection / face protection.

**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.  
P310 Immediately call a POISON CENTER or doctor/physician.

**Disposal:**

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

**Poisons Schedule (SUSMP):** None allocated.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Citric acid	77-92-9	100%	H316 H318

### 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.

**Inhalation:**

Remove victim from area of exposure - 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 advice if effects persist.

**Skin Contact:**

If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.

**Eye Contact:**

Immediately wash in and around the eye area with large amounts of water for at least 15 minutes. Eyelids to be held apart. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport promptly to hospital or medical centre.

**Ingestion:**

Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek medical advice.

**Indication of immediate medical attention and special treatment needed:**

Treat symptomatically. Can cause corneal burns.

### 5. FIRE FIGHTING MEASURES

**Suitable Extinguishing Media:**

Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

**Specific hazards arising from the substance or mixture:**

Combustible solid.

**Special protective equipment and precautions for fire-fighters:**

On burning will emit toxic fumes, including those of oxides of carbon. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

### 6. ACCIDENTAL RELEASE MEASURES

**Emergency procedures/Environmental precautions:**

Clear area of all unprotected personnel. Shut off all possible sources of ignition. If contamination of sewers or waterways has occurred advise local emergency services.

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### **Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:**

Neutralise with lime or soda ash. Wear protective equipment to prevent skin and eye contact and breathing in dust. Work up wind or increase ventilation. Cover with damp absorbent (inert material, sand or soil). Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal. Wash area down with excess water.

## **7. HANDLING AND STORAGE**

### **Precautions for safe handling:**

Avoid skin and eye contact and breathing in dust. In common with many organic chemicals, may form flammable dust clouds in air. For precautions necessary refer to Safety Data Sheet "Dust Explosion Hazards". Take precautionary measures against static discharges.

### **Conditions for safe storage, including any incompatibilities:**

Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10. Protect from moisture. Keep containers closed when not in use - check regularly for spills.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control Parameters:** No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for particulates:

Dusts not otherwise classified: 8hr TWA = 10 mg/m<sup>3</sup>

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

### **Appropriate engineering controls:**

Ensure ventilation is adequate to maintain air concentrations below Workplace Exposure Standards. Avoid generating and breathing in dusts. Use with local exhaust ventilation or while wearing dust mask. Keep containers closed when not in use.

### **Individual protection measures, such as Personal Protective Equipment (PPE):**

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, DUST MASK.



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Wear overalls, chemical goggles and impervious gloves. Avoid generating and inhaling dusts. If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. 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

<b>Physical state:</b>	Solid
<b>Colour:</b>	Colourless to White
<b>Odour:</b>	Odourless
<b>Molecular Formula:</b>	C <sub>6</sub> H <sub>8</sub> O <sub>7</sub>
<b>Solubility:</b>	Soluble in water.
<b>Specific Gravity:</b>	1.665
<b>Relative Vapour Density (air=1):</b>	Not available
<b>Vapour Pressure (20 °C):</b>	Not available
<b>Flash Point (°C):</b>	345
<b>Flammability Limits (%):</b>	Not available
<b>Autoignition Temperature (°C):</b>	Not available
<b>Melting Point/Range (°C):</b>	153
<b>Decomposition Point (°C):</b>	170 (begins to char)
<b>pH:</b>	1.5-2.5 (in 5% solution)

### 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	Reacts exothermically with alkalis.
<b>Chemical stability:</b>	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
<b>Possibility of hazardous reactions:</b>	Hazardous polymerisation will not occur.
<b>Conditions to avoid:</b>	Avoid dust generation. Avoid exposure to moisture. Avoid exposure to heat, sources of ignition, and open flame.
<b>Incompatible materials:</b>	Incompatible with strong oxidising agents , alkalis , carbon steel , moisture .
<b>Hazardous decomposition products:</b>	Oxides of carbon.

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### 11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

<b>Ingestion:</b>	No adverse effects expected, however, large amounts may cause nausea and vomiting. Swallowing may result in irritation to the mouth and throat. Frequent or large oral doses can cause tooth erosion.
<b>Eye contact:</b>	A severe eye irritant. Contamination of eyes can result in permanent injury.
<b>Skin contact:</b>	Contact with skin will result in mild irritation.
<b>Inhalation:</b>	Breathing in dust may result in respiratory irritation.
<b>Acute toxicity:</b>	Oral LD50 (rat): 3000 mg/kg Oral LD50 (mice): 5040 mg/kg
<b>Skin corrosion/irritation:</b>	Mild irritant(rabbit).
<b>Serious eye damage/irritation:</b>	Severe irritant (rabbit).
<b>Chronic effects:</b>	No information available for the product.
<b>Ecotoxicity</b>	Avoid contaminating waterways.
<b>Persistence/degradability:</b>	The material is readily biodegradable.

### 13. DISPOSAL CONSIDERATIONS

**Disposal methods:**

Refer to Waste Management Authority. Dispose of contents/container in accordance with local/regional/national/international regulations.

### 14. TRANSPORT INFORMATION

**Road and Rail Transport**

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.

**Marine Transport**

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

**Air Transport**

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

### 15. REGULATORY INFORMATION

**Classification:**

This material is hazardous according to Safe Work Australia; HAZARDOUS SUBSTANCE.

**Hazard Statement(s):**

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H318 Causes serious eye damage.

**Poisons Schedule (SUSMP):** None allocated.

This material is listed on the Australian Inventory of Chemical Substances (AICS).

### 16. OTHER INFORMATION

#### Additional Information

#### ABBREVIATIONS:

ADB - Air-Dry Basis.  
BEI - Biological Exposure Indice(s)  
CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.  
CNS - Central Nervous System.  
EINECS - European Inventory of Existing Commercial Substances.  
GHS - Globally Harmonized System  
IARC - International Agency for Research on Cancer.  
M - moles per litre, a unit of concentration.  
mg/m<sup>3</sup> - Milligrams per cubic meter.  
NOS - Not Otherwise Specified.  
NTP - National Toxicology Program.  
OSHA - Occupational Safety and Health Administration.  
pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).  
ppm - Parts Per Million.  
RTECS - Registry of Toxic Effects of Chemical Substances.  
TWA/ES - Time Weighted Average or Exposure Standard.

#### HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Clean Plus Chemicals report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

#### PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this Clean Plus Chemicals report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

#### Report Status

This Safety Data Sheet document has been compiled by Clean Plus Chemicals. Further clarification regarding any aspect of this product should contact Clean Plus Chemicals directly. While Clean Plus Chemicals has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, Clean Plus Chemicals accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.