Safety Data Sheet

Infosafe No™ 1CH1Y Issue Date : June 2015 RE-ISSUED by CHEMSUPP

Product Name : CITRIC ACID Anhydrous

Classified as hazardous

1. Identification

GHS Product Identifier
CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)

Address
38 - 50 Bedford Street GILLMAN
SA 5013  Australia

Telephone/Fax Number
Tel: (08) 8440-2000
Fax: (08) 8440-2001

Preparation of citrates, flavoring extracts, confectionary, soft drinks, effervescent salts; acidifier, dispersing agent; medicines, acidulant and antioxidant in foods; sequestering agent, water-conditioning agent and detergent builder, cleaning and polishing stainless steel and other metals; alkyd resins; mordant; removal of sulfur dioxide for smelter waste gases, abscission of citrus fruit in harvesting; cultured dairy products, chemical for synthesis, pharmaceutical syrups, analytical chemistry and laboratory reagent.

Recommended use of the chemical and restrictions on use

Other Names
Name Product Code
CITRIC ACID Anhydrous AR CA013
CITRIC ACID Anhydrous LR CL013
2-Hydroxy-1,2,3-propanetricarboxylic acid, beta-Hydroxytricarballylic acid, Hydroxytricarballylic acid, b-Hydroxy tricarboxilic acid, 1,2,3-Propanetricarboxylic acid, 2-hydroxy CP013

Other Information
EMERGENCY CONTACT NUMBER:      +61 08 8440 2000

Business hours: 8:30am to 5:00pm, Monday to Friday.

Chem-Supply Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Chem-Supply Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Chem-Supply Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

GHS classification of the substance/mixture
Eye Damage/Irritation: Category 2A

Signal Word(s)
WARNING

Hazard Statement(s)
H319 Causes serious eye irritation.

Pictogram(s)
Exclamation mark

Precautionary statement – Prevention
P264 Wash thoroughly after handling.
P280 Wear eye protection/face protection.

Precautionary statement – 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.
P333+P313 If eye irritation persists: Get medical advice/attention.

3. Composition/information on ingredients

Chemical Characterization
Solid
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| Citric acid anhydrous | 77-92-9 | 100 % | Xi | R36 |

4. First-aid measures

**Inhalation**
If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

**Ingestion**
Rinse mouth thoroughly with water immediately. Give plenty of water to drink. Do not induce vomiting. Seek immediate medical assistance.

**Skin**
Wash affected areas with copious quantities of water. If swelling, redness, blistering or irritation occurs, seek medical advice. Remove contaminated clothing and wash before re-use.

**Eye contact**
Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek immediate medical assistance.

**First Aid Facilities**
Maintain eyewash fountain and safety shower in work area.

**Advice to Doctor**
Treat symptomatically. For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor at once.

5. Fire-fighting measures

**Hazards from Combustion Products**
May liberate toxic fumes in fire such as oxides of carbon.

**Specific Methods**
- Non combustible solid.
- Small fire: Use dry chemical, CO2, water spray or foam.
- Large fire: Use water spray, fog or foam.
- If safe to do so, move undamaged containers from the fire area. Cool containers with flooding quantities of water until well after the fire is out.

**Decomposition Temp.**
175 °C

**Precautions in connection with Fire**
Wear SCBA and structural firefighter’s uniform.

6. Accidental release measures

**Personal Precautions**
Avoid inhalation, contact with skin, eyes and clothing.

**Personal Protection**
Wear protective clothing specified for normal operations (see Section 8)

**Clean-up Methods - Small Spillages**
Sweep up (avoid generating dust) and remove to a suitable, clearly labelled container for disposal in accordance with local regulations.

7. Handling and storage

**Precautions for Safe Handling**
Avoid substance contact and generation and inhalation of dust.

**Conditions for safe storage, including any incompatibilities**
Store in a cool, dry place. Store away from oxidizing agents. Keep container tightly closed. Do not store in metal containers. Store at +5 to +30 °C.

8. Exposure controls/personal protection

**Other Exposure Information**
A time weighted average (TWA) concentration for an 8 hour day, and 5 day week has not been established by Safe Work Australia for this product. There is a blanket limit of 10 mg/m³ for dusts when limits have not otherwise been established.

**Appropriate engineering controls**
In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.

**Respiratory Protection**
Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

**Eye Protection**
The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate.
Hand Protection

Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336. Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance. Recommendation: Nitrile rubber gloves

Personal Protective Equipment

Final choice of personal protective equipment will depend on individual circumstances and/or according to risk assessments undertaken.

Footwear

Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

Body Protection

Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals. Do not wear contaminated clothing.

Hygiene Measures

Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

9. Physical and chemical properties

Form: Solid

Appearance: Colourless, translucent crystals or white powder.

Odour: Odourless.

Decomposition Temperature: 175 °C

Melting Point: 153 °C (decomposition)

Solubility in Water: Soluble (59.2% w/w at 20 °C)


Specific Gravity: 1.665

pH: ~1.7 (100 g/l, H2O, 20 °C)

Vapour Pressure: <0.1 hPa (20 °C)

Log P(o/w): -1.72 (20 °C)

Flammability: Combustible.

Auto-Ignition Temperature: 345 °C

Explosion Limit - Upper: 8.0 Vol %

Explosion Limit - Lower: 2.3 Vol %

Molecular Weight: 192.13

10. Stability and reactivity

Chemical Stability: Stable under normal use conditions.

Conditions to Avoid: Strong heating.

Incompatible Materials: Oxidising agents, metals, bases, reducing agents and nitrates.

Hazardous Polymerization: Will not occur.

11. Toxicological Information

Acute Toxicity - Oral: LD50 (rat): 54000 mg/kg.

Ingestion: Ingestion of large amounts may cause irritations of mucous membranes of the stomach, coughing, pain and bloody vomiting.

Inhalation: Irritating to respiratory system.

Skin: Irritating to skin.

Eye: Causes burns. Severely irritating to eyes. Risk of serious damage to eyes.
12. Ecological information

Persistence and degradability
Biodegradation: 98%/2d (Zahn-Wellens).
Easily eliminable.
BOD5: 0.526 g/g (Lit.).
ThOD: 0.75 g/g (calculated).
COD: 0.728 g/g (Lit.).

Bioaccumulative Potential
Behaviour in environmental compartments:
Distribution: log P(o/w): -1.72 (20 °C)
No bioaccumulation is to be expected (log Pow <1).

Biological Properties
Harmful effect due to pH shift.

Environmental Protection
This material has a high biological oxygen demand, and it may cause significant oxygen depletion in aquatic systems. This product is expected to be readily biodegradable and is not likely to bioconcentrate. When diluted with a large amount of water, this chemical released directly or indirectly into the environment is not expected to have a significant impact.

Acute Toxicity - Fish
L. idus LC50: 440 mg/l/48 h.

13. Disposal considerations
Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

14. Transport information
Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

15. Regulatory information

Regulatory Information
Listed in the Australian Inventory of Chemical Substances (AICS).

Poisons Schedule
Not Scheduled

16. Other Information

Literature References
'Standard for the Uniform Scheduling of Medicines and Poisons No. 6', Commonwealth of Australia, February 2015.
Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]'.
Safe Work Australia, 'Hazardous Substances Information System, 2005'.
Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances (2011)'.

Contact Person/Point
Paul McCarthy Ph. (08) 8440 2000

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Empirical Formula & Structural Formula: C6H8O7

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