SAFETY DATA SHEET



Revision date: 30-Jun-2020

Revision Number 7

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER Product identifier **Product Name** CITRIC ACID SOLUTION Product Code(s) 000034423701 Other means of identification Recommended use of the chemical and restrictions on use **Recommended use** Preparation of citrates, soft drinks, effervescent salts; food acidulant and antioxidant; detergent builder. Uses advised against No information available. Details of the supplier of the safety data sheet Supplier Ixom Operations Pty Ltd (Incorporated in Australia) NZBN: 9429041465226 Address: 166 Totara Street Mt Maunganui South New Zealand Telephone Number: +64 9 368 2700 Facimile: +64 9 368 2710 For further information, please contact **Contact Point** Product Safety Department Emergency telephone number **Emergency Telephone** 0 800 734 607 (ALL HOURS) 2. HAZARDS IDENTIFICATION Not classified as a Dangerous Good under NZS 5433:2012 Transport of Dangerous Goods on Land. Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017 and the Hazardous Substances (Classification) Notice 2017.

GHS Classification

SIGNAL WORD Danger

Subclass 6.3 Category B - Substances that are mildly irritating to the skin. Subclass 8.3 Category A - Substances that are corrosive to ocular tissue.

Approval Number: HSR006515

Label elements



Hazard statements H316 - Causes mild skin irritation H318 - Causes serious eye damage

Precautionary Statements - Prevention

Keep out of reach of children. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or doctor/physician

If skin irritation occurs: Get medical advice/attention

Precautionary Statements - Storage

No storage statements

Precautionary Statements - Disposal

In the case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Notice 2017. This may also include any method of disposal that must be avoided.

Other hazards which do not result in classification

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Mixture</u>

Chemical name	CAS No.	Weight-%
Citric acid	77-92-9	>10-50%
Water	7732-18-5	to 100%

4. FIRST AID MEASURES

Description of first aid measures

Emergency telephone number	Poisons Information Center, New Zealand: 0800 764 766 Poisons Information Center, Australia: 13 11 26
Inhalation	Remove to fresh air. Call a physician if symptoms occur.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water. Call a physician if symptoms occur.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Call a physician immediately.

Most important symptoms and effects, both acute and delayed

Symptoms Irritation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically. Can cause corneal burns.

5. FIRE FIGHTING MEASURES		
Suitable Extinguishing Media		
Suitable Extinguishing Media	Dry chemical, CO2, water spray or regular foam.	
Unsuitable extinguishing media	No information available.	
Specific hazards arising from the c	hemical	
Specific hazards arising from the	Non-combustible.	
chemical		
Special protective actions for fire-fighters		
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.	

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin and eyes.
For emergency responders	Use personal protection recommended in Section 8.
Environmental precautions	
Environmental precautions	See Section 12 for additional Ecological Information.
Methods and material for containm	ent and cleaning up
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. After cleaning, flush away traces with water.
Precautions to prevent secondary I	nazards
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials

Alkalis. Mild steel.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

No value assigned for this specific material by the New Zealand Workplace Health & Safety Authority.

Appropriate engineering controls

Engineering controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

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.



9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Clear Liquid
Appearance	No information available.
Color	Colourless
Odor	Characteristic
Odor threshold	No information available.

Property pH Melting point / freezing point Boiling point / boiling range <u>Values</u> 1.8 (1% w/v) No data available No data available

Remarks • Method None known None known None known

000034423701 - CITRIC ACID SOLUTION

Flash point Evaporation rate Flammability (solid, gas) Flammability Limit in Air	Not applicable No data available No data available	None known None known None known None known
Upper flammability or explosive limits	Not applicable	
Lower flammability or explosive limits	Not applicable	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	1.082-1.25 @20°C	None known
Water solubility	Miscible in water	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

Other information

10. STABILITY AND REACTIVITY

Reactivity	
Reactivity	Do not store in unlined mild steel containers.
Chemical stability	
Stability	Stable under normal conditions.
Explosion data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.
Possibility of hazardous reactions	
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	
Conditions to avoid	None known based on information supplied.
Incompatible materials	
Incompatible materials	Alkalis Mild steel
Hazardous decomposition products	<u>1</u>

Hazardous decomposition products Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Information on likely routes of exposure

Product Information

No adverse health effects expected if the chemical is handled in accordance with this

Safety Data Sheet and the chemical label. Symptoms or effects that may arise if the chemical is mishandled and overexposure occurs are:

Inhalation	May cause irritation.
Eye contact	Causes serious eye irritation.
Skin contact	Causes mild skin irritation.
Ingestion	May cause irritation.
Symptoms	No information available.

Acute toxicity

Numerical measures of toxicity No information available.

Component Information

oomponent information			
Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Citric acid	= 3000 mg/kg (Rat) = 3 g/kg (Rat)	> 2000 mg/kg (Rat)	-
Water	> 90 mL/kg (Rat)	-	-

See section 16 for terms and abbreviations

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Causes mild skin irritation.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity

Keep out of waterways.

Chemical name	Algae/aquatic plants	Fish	Crustacea
Citric acid	-	LC50: =1516mg/L (96h, Lepomis	EC50: =120mg/L (72h, Daphnia
		macrochirus)	magna)

Persistence and degradability		
Persistence and degradability	No information available.	
Bioaccumulative potential		
Bioaccumulation	No information available.	
<u>Mobility</u>		
Mobility in soil	No information available.	
Component Information		
Chemical na	ne	Partition coefficient
Citric acid		
		-1.72
Other adverse effects		-1.72
Other adverse effects Other adverse effects	No information available.	-1.72
		-1.72
Other adverse effects		-1.72

products	(Disposal) Notice 2017 and the Act. Treat the substance using a method that changes the characteristics or composition of the substance so that the substance is no longer a hazardous substance; or export the substance from New Zealand as waste.
Contaminated packaging	No information available.

14. TRANSPORT INFORMATION			
ROAD AND RAIL TRANSPORT	Not classified as a Dangerous Good under NZS 5433:2012 Transport of Dangerous Goods on Land.		
IATA_	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.		
IMDG	Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.		

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

New Zealand

National regulations

See section 8 for national exposure control parameters

	Chemical name	New Zealand HSNO Chemical Classification
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Citric acid - 77-92-9	6.1E (All),6.1E (I),6.3B,8.3A
	6.3B,8.3A
	8.3A
	6.4A

International Inventories	
NZIoC	All the constituents of this material are listed on the New Zealand Inventory of Chemicals.
TSCA	Contact supplier for inventory compliance status.
DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AICS	All the constituents of this material are listed on the Australian Inventory of Chemical
	Substances.

Legend:

NZĪoC - New Zealand Inventory of Chemicals
 TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 Australian Inventory of Chemical Substances

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

16. OTHER INFORMATION	
Prepared By	This Safety Data Sheet has been prepared by Ixom Operations Pty Ltd (Toxicology and SDS Services).

Issuing Date: 30-Jun-2020

Reason(s) For Issue: Addition/Change of synonymous name(s)

Revision Note:

The symbol (*) in the margin of this SDS indicates that this line has been revised.

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section	<u>n 8: EXPOSURE CONTROLS/PERSONAL</u>	PROTECTION	
TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
С	Carcinogen		-

Key literature references and sources for data used to compile the SDS Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency) Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's ChemID Plus (NLM CIP) National Library of Medicine's PubMed database (NLM PUBMED) National Toxicology Program (NTP) New Zealand's Chemical Classification and Information Database (CCID) Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program Organization for Economic Co-operation and Development Screening Information Data Set RTECS (Registry of Toxic Effects of Chemical Substances) World Health Organization

Disclaimer

This SDS 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. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

End of Safety Data Sheet