

1. IDENTIFICATION

Product Name	Cyanuric acid
Other Names	Isocyanuric acid
Uses	Chlorine stabiliser; precursor/component of bleaches (whitening agent); reagents; disinfectants.
Chemical Family	No Data Available
Chemical Formula	C ₃ H ₃ N ₃ O ₃
Chemical Name	1,3,5-Triazine-2,4,6(1H,3H,5H)-trione
Product Description	No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) Schedule 5

Globally Harmonised System

Hazard Classification NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Signal Word None

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)



Dangerous Goods Classification

NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

3. COMPOSITION/INFORMATION ON INGREDIENTS**Ingredients**

Chemical Entity	Formula	CAS Number	Proportion
Cyanuric acid	C ₃ H ₃ N ₃ O ₃	108-80-5	<=100 %

4. FIRST AID MEASURES**Description of necessary measures according to routes of exposure**

Swallowed	IF SWALLOWED: Rinse mouth, then drink a glass of water. Do not induce vomiting. For advice, contact a Poisons Information Centre or a doctor (at once). If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Never give anything by mouth to an unconscious person.
Eye	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. *Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin	IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs, get medical advice/attention.
Inhaled	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
Advice to Doctor	Treat symptomatically.
Medical Conditions Aggravated by Exposure	No information available.

5. FIRE FIGHTING MEASURES

General Measures	If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.
Flammability Conditions	Non-combustible material.
Extinguishing Media	If material is involved in a fire, use dry chemical, Carbon dioxide (CO ₂), foam or water spray for extinction.
Fire and Explosion Hazard	Avoid generating dust; 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	Decomposes on heating, emitting toxic fumes, including Carbon oxides, Nitrogen oxides, isocyanic acid and cyanide gas.
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may cause pollution. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.
Personal Protective Equipment	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.
Flash Point	No Data Available
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 (if dust clouds can occur). Do not touch or walk through spilled material - Slippery when spilt! Avoid dust formation. Avoid breathing dust and contact with eyes, skin and clothing.
Clean Up Procedures	Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal (see SECTION 13).
Containment	Stop leak if you can do it without risk. Prevent dust cloud. Prevent entry into waterways, sewers, basements or confined areas.
Decontamination	Ventilate area and clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.
Environmental Precautionary Measures	Prevent entry into drains and waterways. If contamination of sewers or waterways has occurred advise local emergency services.
Evacuation Criteria	Spill or leak area should be isolated immediately. Evacuate personnel to safe areas. 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. Handle in accordance with good industrial hygiene and safety practice. Avoid dust formation. Avoid breathing dust and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Keep away from heat and sources of ignition - No smoking. Take precautionary measures against electrostatic charges - earthing necessary during loading operations.
Storage	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep containers tightly closed when not in use - check regularly for spills. Protect from moisture (hygroscopic). Keep away from heat and sources of ignition - No smoking. Keep away from foodstuffs and incompatible materials (see SECTION 10).
Container	Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No value assigned for this specific material by Safe Work Australia. For dusts from solid substances without specific occupational exposure standards: - Safe Work Australia Exposure Standard (Nuisance dusts): 8 hr TWA = 10 mg/m ³ , measured as inhalable dust. - New Zealand WES (Particulates not otherwise classified): TWA = 10 mg/m ³ ; TWA = 3 mg/m ³ (respirable).
Exposure Limits	No Data Available
Biological Limits	No information 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 an inhalation risk exists. Recommended: Dust mask/particulate respirator (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses or chemical safety goggles. - Hand protection: Handle with gloves. Recommended: Impervious gloves, e.g. Rubber 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. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Immediately remove all soiled and contaminated clothing. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Crystalline, powder or granular
Odour	Odourless
Colour	White
pH	>=4.0 (1% soln.)
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	No Data Available
Melting Point	320 - 360 °C (Decomposes)
Freezing Point	No Data Available
Solubility	0.27 g/100 ml water 25°C
Specific Gravity	1.75 - 2.5
Flash Point	No Data Available
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	>=320 °C
Density	1.75 - 2.5 g/cm ³
Specific Heat	No Data Available
Molecular Weight	129.07 g/mol
Net Propellant Weight	No Data Available
Octanol Water Coefficient	No Data Available
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	No information available.
Potential for Dust Explosion	Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
Fast or Intensely Burning Characteristics	No information available.
Flame Propagation or Burning Rate of Solid Materials	No information available.
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No information available.
Properties That May Initiate or Contribute to Fire Intensity	Non-combustible material.
Reactions That Release Gases or Vapours	Decomposes on heating, emitting toxic fumes, including Carbon oxides, Nitrogen oxides, isocyanic acid and cyanide gas.
Release of Invisible Flammable Vapours and Gases	No information available.

10. STABILITY AND REACTIVITY

General Information	No decomposition when used as directed. Material is stable under normal conditions.
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Chemical Stability**Conditions to Avoid**

Avoid dust formation. Keep away from heat and sources of ignition. Protect from moisture.

Materials to Avoid

Incompatible/reactive with strong oxidising agents.

Hazardous Decomposition Products

Decomposes on heating, emitting toxic fumes, including Carbon oxides, Nitrogen oxides, isocyanic acid and cyanide gas.

Hazardous Polymerisation

No information available.

11. TOXICOLOGICAL INFORMATION**General Information**

Information on possible routes of exposure:

- Ingestion: No adverse effects expected; may cause abdominal pain, nausea and vomiting.
- Eye contact: Mildly irritating to the eyes.
- Skin contact: May cause mild skin irritation.
- Inhalation: May cause slight respiratory tract irritation, cough, sore throat.

Chronic effects: None of the substances in this product are listed as carcinogens by the international agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the American Conference of Governmental Industrial Hygienists (ACGIH).

Acute**Ingestion**

Acute toxicity (Oral):
- LD50, Rat: >5,000 mg/kg bw. [Supplier's SDS].

Other

Acute toxicity (Dermal):
- LD50, Rabbit: >5,000 mg/kg bw. [Supplier's SDS].

Carcinogen Category

None

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Aquatic toxicity:
- LC50, Fish: >2,100 mg/L (96 h) [OECD 203].
- LC50, Daphnia: >1,000 mg/L (48 h) [OECD 202].
- EC50, Algae: >100 mg/L (72 h) [OECD 201].

Persistence/Degradability

In highly aerobic media cyanuric acid resists biodegradation. Anaerobic growth in sewage degrades cyanuric acid.

Mobility

Cyanuric acid is weakly adsorbed and highly mobile in soils.

Environmental Fate

Prevent entry into drains and waterways.

Bioaccumulation Potential

Not potentially bioaccumulative.

Environmental Impact

No Data Available

13. DISPOSAL CONSIDERATIONS**General Information**

Recycle to process, if possible or dispose of (contents/container) in accordance with local/regional/national regulations.

Special Precautions for Land Fill

Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION**Land Transport (Australia)**

ADG Code



Proper Shipping Name	Cyanuric acid
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Sea Transport

IMDG Code

Proper Shipping Name	Cyanuric acid
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
EMS	No Data Available
Marine Pollutant	No
Comments	NON-DANGEROUS GOODS: Not regulated for SEA transport.

Air Transport

IATA DGR

Proper Shipping Name	Cyanuric acid
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for AIR transport.

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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15. REGULATORY INFORMATION

General Information	CYANURIC ACID
Poisons Schedule (Aust)	Schedule 5

National/Regional Inventories

Australia (AIC)	Listed
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Canada (DSL)	Listed
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	Not Determined
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Not Determined
Korea (KECI)	Not Determined
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Not Determined
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Not Determined
USA (TSCA)	Listed

16. OTHER INFORMATION

Related Product Codes

CYACID0100, CYACID0101, CYACID0110, CYACID0115, CYACID0116, CYACID0200, CYACID0202, CYACID0210, CYACID0211, CYACID0215, CYACID0220, CYACID0300, CYACID0303, CYACID0410, CYACID0500, CYACID0900, CYACID0901, CYACID1000, CYACID1001, CYACID1002, CYACID1003, CYACID1004, CYACID1005, CYACID1006, CYACID1007, CYACID1008, CYACID1009, CYACID1010, CYACID1011, CYACID1012, CYACID1013, CYACID1014, CYACID1015, CYACID1016, CYACID1017, CYACID1018, CYACID1019, CYACID1020, CYACID1021, CYACID1024, CYACID1025, CYACID1035, CYACID1100, CYACID1101, CYACID1800, CYACID1801, CYACID1802, CYACID1803, CYACID1804, CYACID1805, CYACID1806, CYACID1807, CYACID2000, CYACID2001, CYACID2002, CYACID2003, CYACID2004, CYACID2400, CYACID2401, CYACID2500, CYACID2501, CYACID2510, CYACID2600, CYACID2601, CYACID2602, CYACID3000, CYACID3001, CYACID3002, CYACID3500, CYACID3600, CYACID3601, CYACID3700, CYACID4000, CYACID4400, CYACID4500, CYACID4501, CYACID4502, CYACID4520, CYACID4600, CYACID4700, CYACID4715, CYACID4800, CYACID5000, CYACID5001, CYACID6000, CYACID7001, CYACID7025, CYACID7040, CYACID8100, CYACID9100, CYACID9101, CYACID9200, CYACID9201, CYACID9300, CYACID9301, CYACID9400, ISCYAC1000, ISCYAC1001

Revision

4

Revision Date

20 Apr 2020

Reason for Issue

Update SDS

Key/Legend

< Less Than

> Greater Than

AICS Australian Inventory of Chemical Substances

atm Atmosphere

CAS Chemical Abstracts Service (Registry Number)

cm² Square Centimetres

CO₂ Carbon Dioxide

COD Chemical Oxygen Demand

deg C (°C) Degrees Celcius

EPA (New Zealand) Environmental Protection Authority of New Zealand

deg F (°F) Degrees Fahrenheit

g Grams

g/cm³ Grams per Cubic Centimetre

g/l Grams per Litre

HSNO Hazardous Substance and New Organism

IDLH Immediately Dangerous to Life and Health

immiscible Liquids are insoluble in each other.

inHg Inch of Mercury



inH₂O Inch of Water

K Kelvin

kg Kilogram

kg/m³ Kilograms per Cubic Metre

lb Pound

LC₅₀ LC stands for lethal concentration. LC₅₀ is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.

LD₅₀ LD stands for Lethal Dose. LD₅₀ is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

ltr or **L** Litre

m³ Cubic Metre

mbar Millibar

mg Milligram

mg/24H Milligrams per 24 Hours

mg/kg Milligrams per Kilogram

mg/m³ Milligrams per Cubic Metre

Misc or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.

mm Millimetre

mmH₂O Millimetres of Water

mPa.s Millipascals per Second

N/A Not Applicable

NIOSH National Institute for Occupational Safety and Health

NOHSC National Occupational Health and Safety Commission

OECD Organisation for Economic Co-operation and Development

Oz Ounce

PEL Permissible Exposure Limit

Pa Pascal

ppb Parts per Billion

ppm Parts per Million

ppm/2h Parts per Million per 2 Hours

ppm/6h Parts per Million per 6 Hours

psi Pounds per Square Inch

R Rankine

RCP Reciprocal Calculation Procedure

STEL Short Term Exposure Limit

TLV Threshold Limit Value

tne Tonne

TWA Time Weighted Average

ug/24H Micrograms per 24 Hours

UN United Nations

wt Weight

