

Aqua~Health Instant Pool Chlorine Pellets

MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION OF THE MATERIAL AND SUPPLIER

PRODUCT NAME: Aqua~Health Instant Pool Chlorine Pellets
Other Names: Trichlor - TICA
Manufacturers' Code & Pack Size: 342500 500g
342001 1 kg
Recommended Use: Control of algae and bacteria in swimming pools. Should not be used in spas.
Supplier's Details: Waterco Limited
36 South Street
Rydalmere, NSW 2116
Ph: (02) 9898 8600
Emergency Phone Number: Business hours only (02) 9898 8682
General Information
24 Hour Emergency Number:
Australia: Poisons Information Centre Australia Wide
Ph 13 1126
New Zealand: Poisons INFORMATION CENTRE
0800 POISON (0800 764 766)

SECTION 2 - HAZARD IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

Classified as a hazardous substance according to the criteria of the National Occupational Health and Safety Commission.

UN Number: 2468
UN Proper Shipping Name: Trichloroisocyanuric acid, dry
Dangerous Goods Class: 5.1 oxidising agent
Subsidiary Risk: Not applicable
Packing Group: II
Hazchem Code: 1W

Risk Phrases:

R8 Contact with combustible material may cause fire
R22 Harmful if swallowed
R31 Contact with acids liberates toxic gas
R36/37 Irritating to eyes and respiratory system
R50/53 Very toxic to aquatic organisms/May cause long-term adverse effects in the aquatic environment

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Safety Phrases:

S(2)	Keep out of reach of children
S8	Keep container dry
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S41	In case of fire and/or explosion, do not breathe fumes
S60	This material and its container must be disposed of as hazardous waste
S61/63	Avoid release to the environment. Refer to special instructions/Material Safety Data Sheets

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Entity†	Synonyms	CAS Number	Concentration
Trichloroisocyanuric acid (90% available chlorine)	TICA, C3 CL3 N3 O3, Symclosene	87-90-1	49-50%
Sodium Dichloroisocyanurate	Troclosene Sodium	2893-78-9	45%
Organic and Inorganic Compound			5-6%

† Where they are present in this product and other ingredients of this material are not hazardous, as defined by either inclusion in the *List of Designated Hazardous Substance* or classified in accordance with the *Approved Criteria for Defining a Hazardous Substance*, and published by the National Occupational Health and Safety Commission/AGPS, 1999

SECTION 4 - FIRST AID MEASURES

First Aid: Take a copy of this MSDS to medical advisers if signs or symptoms of overexposure occur and medical attention is required.

Swallowed: Immediately rinse mouth out with water. Give two glasses of water and do not induce vomiting. Never give anything by mouth to an unconscious person. **Seek advice immediately from a medical practitioner or Poisons Information Centre.**

Skin: Thoroughly wash exposed skin with plenty of soap and water. Seek medical advice if skin irritation occurs.

Eye: If contact occurs, or if eye irritation arises, hold the eyelid(s) open and flush the eye(s) with fresh lukewarm water (or, if available, other eye cleansing solutions) for at least 15 minutes. Take care not to rinse contaminated water into the non-affected eye. **Seek medical advice immediately for all eye contact.**

Inhaled: Remove affected individual from exposure to fresh air. Keep individual warm and comfortable. If breathing is laboured and the individual has blue lips (cyanotic) ensure airways are clear and arrange oxygen from a qualified person. If breathing has stopped, supply artificial

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respiration at once. If cardiac arrest occurs, apply cardiopulmonary resuscitation. Seek medical advice if respiratory symptoms occur.

First Aid Facilities: If practicable, an eyewash station should be available.

Advice to Doctor: No specific treatment recommended. Treat symptomatically for exposure to chlorine gas. Delayed effects include headaches, shortness of breath, pulmonary oedema and pneumonia.

Medical Conditions that may be aggravated by Exposure: Pre-existing respiratory conditions may be aggravated by inhalation of this product. Delayed effects from exposure to chlorine gas can include shortness of breath, pulmonary oedema and chemical pneumonitis.

SECTION 5 - FIRE FIGHTING MEASURES

Hazchem Code: 2WE

Extinguishers: No special requirement. Use an extinguisher commensurate with the fire risks of other materials in the fire.

Fire Fighting Precautions: Fire fighters must wear full protection and self-contained breathing apparatus.

Combustion Products: Carbon dioxide, Carbon monoxide, Hydrogen chloride gas and other chlorine containing vapours

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Clean up spills promptly. Keep spilt product out of drains, sewers and waterways. Spills should be contained, and the possibility of collection for re-use evaluated. If this is not possible, ventilate the area of spill, wear personal protective equipment as specified below, and sweep the tablets or collect them and place into a leak proof container for disposal. Avoid sawdust as an absorbent. Sodium sulphate (3.5 kg for every kg of product spilled) or Soda Ash (2.0 kg for every kg product spilled) can be used to neutralise spills, if necessary. Wash down the area of spill with plenty of water to remove any remaining residues.

SECTION 7 - HANDLING AND STORAGE

Handling: Keep out of the reach of children. Do not eat, drink or smoke while handling the product. Do not swallow. Avoid contact with the eyes. Avoid skin contact. Avoid inhaling dusts or chlorine gas. Avoid contact of the material with water or moisture, except in its normal use. See below for specific advice on controls and precautions.

Storage: The product is a dangerous good (Class 5.1 Oxidising Agent) and should be stored in accordance with the Australian Dangerous Good Code and Dangerous Goods legislation. The product is a scheduled poison (S5) and should be stored and used in accordance with the Standard for the Uniform Scheduling of Drugs and Poisons, and Poisons legislation. Minimal conditions include storage in a cool, dry, ventilated store away from moisture, sunlight and incompatible substances. Containers should be kept upright, closed and airtight when not in use.

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Incompatibilities: Acids, alkalis, oxidising agents, organic materials and ammonia.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Standards: No ingredients in this product have exposure standards, as outlined in the standard *Exposure Standards for Atmospheric Contaminants in the Occupational Environment* third edition, published by the National Occupational Health and Safety Commission/AGPS, 1995.

Engineering Controls: Exposures can be reduced by process modification, use of general ventilation (either natural or mechanical) or other methods are usually sufficient to control dusts arising from the use of this material. Keep containers closed when not in use.

Personal Protective Equipment: All personal protective equipment should be selected, used, maintained and decontaminated in accordance with manufacturers' instructions and applicable standards.

Clothing: Overalls and boots should be worn as a general requirement.

Skin Protection: Where a skin exposure is likely, skin protection is required, including gloves and apron. Chemically resistant gloves made of rubber, nitrile, PVC or neoprene should be satisfactory. Any such gloves should comply with Australian Standards AS 2161.

Eye Protection: Eye protection should be used where splashing of solutions or large amounts of dusts may be generated. Face-shield, chemical goggles or safety glasses with side shield are suitable. Such eye protection should comply with Australian Standards AS 1336/1337.

Respiratory Protection: Respiratory protection is required where the production of dusts or chlorine gas is significant. In such cases, a suitable respirator, such as an approved particulate mask should be used. The selection, use and maintenance of such respiratory protection should comply with Australian Standards AS 1517/1716.

Personal Hygiene: Always wash hands after using this product. Always wash hands before eating, drinking, smoking or using the toilet. Remove and wash contaminated clothing before reuse.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odour:	White pellets with sharp, chlorine-like bleach odour.
pH:	2.7 – 3.5 (1% solution at 25 °C)
Vapour Pressure:	Not applicable
Vapour Density:	Not applicable
Boiling Point/Range:	Decomposes
Freezing/Melting Point:	225 - 235°C
Solubility in Water:	12 g/L at 25 °C
Specific Gravity/Density:	Not applicable
Flash Point:	Non flammable
Lower Flammability Limit:	Non flammable
Upper Flammability Limit:	Non flammable
Ignition Temperature:	Not applicable

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SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:	Stable. Trichloroisocyanuric acid form isocyanuric acid when dissolved in water with the release of chlorine gas.
Conditions to Avoid:	Heat, moisture and incompatible chemicals.
Incompatible Material:	Acids, alkalis, oxidising agents, organic materials and ammonia.
Hazardous Decomposition Products:	
Hazardous Reactions:	Powerful oxidising agent – will react with all organic materials. Readily ignites combustible materials. Reacts with water or acids producing toxic chlorine gas. Explosive gases may be released with ammonia and alkaline materials. See section of Conditions to Avoid and Incompatibles.

SECTION 11 - TOXICOLOGICAL INFORMATION

Oral LD₅₀ (rat) = 406 mg/kg

Dermal LD₅₀ (rabbit) = 2000 mg/kg

Eye irritation (rabbit) = Severe irritant

Skin irritation (rabbit) = Moderate irritant

Trichloroisocyanuric acid is not considered a skin sensitizer (in the guinea pig).

Trichloroisocyanuric acid was not toxic in a long-term repeated dose study, 30 days, (in rats dosed with 2ppm in drinking water).

Isocyanuric acid was not toxic in a long-term repeated dose study, 2 years, (in rats dosed with 5% in the diet).

Metabolic studies show that Isocyanuric acid dose not accumulate in the body. When tested for genotoxicity, Isocyanuric acid was negative.

Routes of Exposure: The primary hazard of this product is inhalation of chlorine gas (released from the tablets).

Acute Effects:

Swallowed: Swallowing this product, may be harmful to health.

Skin: The active ingredient of the tablet is irritating to skin, causing symptoms from itching to redness, with chemical burns and blisters to moderate exposure and the possibility of corrosion (scarring).

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Eye: The active ingredient of the tablet is severely irritating to the eye on contact, with symptoms of discomfort, tears and blurred vision. Corrosion to the cornea and other eye surfaces is also possible.

Inhaled: Airborne dusts may release chlorine gas, which is irritating to the upper airways and lungs producing discomfort, coughing and sneezing.

Chronic Effects: None known. Limited information is available to suggest that long-term low level exposure to chlorine gas may be associated with respiratory problems.

SECTION 12 - ECOLOGICAL INFORMATION

This product is considered an environmental hazard. Avoid contaminating waterways.

SECTION 13 - DISPOSAL CONSIDERATIONS

Do not discharge this product to natural waterways, storm-water channels or sewers. This product is not a hazardous waste and it can, along with its containers, be disposed to landfill in accordance with local regulations.

SECTION 14 - TRANSPORT INFORMATION

UN Number:	2468
UN Proper Shipping Name:	Trichloroisocyanuric acid, dry
Dangerous Goods Class:	5.1 Oxidising agent
Subsidiary Risk:	Not applicable
Packing Group:	II
Hazchem Code:	1W
Special Precaution to User:	The product is generically classified as a dangerous good (Class 5.1 Oxidising Agent). Transport in accordance with the Australian Dangerous Goods Code and Dangerous Goods legislation.

SECTION 15 - REGULATORY INFORMATION

The following ingredients: Trichloroisocyanuric acid is mentioned in the SUSDP.

Poisons Schedule: S6

Product: Trichloroisocyanuric acid (90% available chlorine) (CAS: 87-90-1) is found in the following regulatory lists:

AICS Listing

Hazardous Substances Information System

International Council of chemical Associations (ICCA) – High Production Volume List

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New Zealand Inventory of Chemicals (NZIoC) HSNO Approval Code: HSR001359

Product: Sodium Dichloroisocyanurate (CAS: 2893-78-9) is found in the following regulatory lists:
Hazardous Substances Information System
International Council of chemical Associations (ICCA) – High Production Volume List
New Zealand Inventory of Chemicals (NZIoC) HSNO Approval Code: HSR001324

SECTION 16 - OTHER INFORMATION

Worker Training: As a minimum all workers using this product should be shown a copy of this MSDS before first use.

Date of Preparation of this MSDS: June, 2007
Revised: October, 2008 - Address Changed
Revised: December 2010 – Hazard Information, Regulatory Information
Revised: January 2012 – Product offer

This MSDS contains only safety-related information. For other data see product literature.

Acronyms:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail, 7th Edition
AICS	Australian Inventory of Chemical Substances
CAS number	Chemical Abstracts Service Registry Number
Hazchem Number	Emergency action code of numbers and letters that provide information to emergency services especially fire fighters
IARC	International Agency for Research on Cancer
ASCC	Office of the Australian Safety and Compensation Council
NOS	Not otherwise specified
NTP	National Toxicology Program (USA)
R-Phrase	Risk Phrase
SUSDP	Standard for the Uniform Scheduling of Drugs & Poisons
UN Number	United Nations Number

This material safety data sheet (MSDS):

1. Is produced by Waterco Ltd for use in Australia, and is based on information supplied to Waterco Ltd by our suppliers.
2. Summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace,
3. Has been formatted to MSDS format accepted by the National Occupational Health and Safety Commission for use in Australia.

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4. Has been produced following the principles and recommendation outline in the *National Code of Practice for the Preparation of Material Safety Data Sheet* published by the National Occupational Health and Safety Commission/AGPS, Canberra, 2003.

Each user must review this MSDS in the context of how the product will be handled and used in the workplace. If clarification or further information is needed to ensure that an appropriated risk assessment can be made, the user should contact Waterco Ltd.

If this MSDS is a copy, or more than five years old, contact Waterco Ltd for a new one.