

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: TRICHLOROISOCYANURIC ACID TABLETS

SOLD AS: Once a week tablets

Date of Issue: 19 July 2003

STATEMENT OF HAZARDOUS NATURE

Classified as hazardous according to criteria of WorkSafe Australia

COMPANY DETAILS

Company: International Quadratics Pty Ltd
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PRODUCT IDENTIFICATION

Product Name: Trichloroisocyanuric Acid
Shipping Name(CSN): Trichloroisocyanuric Acid, Dry-Oxidizer
Other Names: Trichlors - Triazinetroine
UN Number: 2468
DG class: 5.1
Packing group: II
Hazchem Code: 2PE
Poisons Schedule: S5
Product Use: Swimming Pool Disinfectant and Sanitizer

PHYSICAL DESCRIPTION AND PROPERTIES

Appearance: White granular or tablet-form product with blue flecks.
Melting Point: Decomposes at 225 degrees C
Specific Gravity: 1 at 20 degrees C
Soluble in Water: Soluble 1.28g/100ml of water at 25 degrees C
Odour Threshold: Sharp, chlorine-like bleach odour
pH at 25 degrees C: (1% solution) 2.8
Form: Solid
Molecular Weight: 232.5

COMPOSITION

<u>Name</u>	<u>CAS No</u>	<u>Proportion</u>
Trichloroisocyanuric Acid	87-90-1	96.00-100.00%
Copper Sulphate Pentahydrate	7758-98-7	3-4%
Aluminium Sulphate	10043-01-3	5-6%
Boric Acid	11113-50-1	0 - 4.00%

HEALTH HAZARD INFORMATION

Effects from Acute Exposure

- Ingestion:** Irritation and/or burns can occur to the gastrointestinal tract, including the stomach and intestines, characterized by nausea, vomiting, diarrhoea, abdominal pain, bleeding and/or tissue ulceration.
- Eye:** A severe eye irritant. Contamination of eyes can result in permanent injury.
- Skin:** Dermal exposure can cause severe irritation and/or burns characterized by redness, swelling and scab formation. Prolonged skin exposure may cause destruction of the dermis with impairment of the skin at site of contact to regenerate.
- Inhalation:** The vapour (chlorine) is an irritant to the mucous membranes and respiratory tract. Inhalation of dust will result in respiratory irritation. Inhalation of vapour (chlorine) can result in headaches, dizziness and possible nausea. May cause pulmonary oedema, pneumonitis and emphysema. Inhalation of high concentrations can result in permanent lung damage.

Harmful (Xn)

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

FIRST AID

- Ingestion:** Rinse mouth thoroughly with water immediately. Give water or milk to drink. DO NOT induce vomiting. Do not give alcohol. Seek immediate medical assistance. Poison Information Centre phone **13 11 26** Australia wide.
- Eye:** Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek immediate medical assistance.
- Skin:** Remove contaminated clothes. Wash affected areas with copious quantities of water. If swelling, redness, blistering or irritation occurs seek medical advice.
- Inhalation:** Remove victim from exposure - avoid becoming a casualty. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have qualified person give oxygen through a face mask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage. For all but the most minor symptoms arrange for patient to be seen by a doctor as soon as possible - either on site or at the nearest hospital.
- Advice to Doctor:** Treat symptomatically - Poison Centre **13 11 26** Australia wide.

FIRST AID FACILITIES

Eye wash and safety shower in area of use

STORAGE AND HANDLING

Storage Precautions: Store in a cool, dry place. Store away from sources of heat or ignition. Store away from combustible materials. Store away from strong bases. Store away from strong acids. Keep containers securely sealed and protected against physical damage. Store away from foodstuffs. Not to be loaded with Class 1, 2.1, 2.3, 3, 4.1, 4.2, 4.3, 5.2, 6*, 7, 8, 9* (*where these classes are capable of being ignited and burning), and substances other than dangerous goods capable of being ignited and burning.

Shipping Name (CSN): TRICHLOROISOCYANURIC ACID, DRY-OXIDIZER

Other Storage Info: Mix only with water. Use only clean, dry utensils. Do not mix with remnants of other products. Such use may cause a violent reaction to fire or explosion.

SPILLS AND LEAKS

Clear area of all unprotected personnel. For large spills notify Emergency Services. In the event of a small spill: Scrape up. Collect and seal in properly labelled drums for disposal. Neutralize remaining product with a weak reducing agent such as Sodium Thiosulphite, or with Bisulphite and dilute Sulphuric Acid. Neutralize with soda ash to pH 8-10 and flush to sewer with copious quantity of water. Avoid breathing dust or vapours and contact with skin and eyes. Wear full protective clothing (see Personal Protection/Ventilation Section). Self contained breathing apparatus may be needed for prolonged periods of exposure. Refer to appropriate **State Waste Disposal Authority** Observe local regulations.

FIRE AND/OR EXPLOSION HAZARD

Fire/Explos. Hazards: Evacuate immediate area. A powerful oxidizing agent. It can ignite combustible substances. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of decomposition. Hazardous decomposition products: Carbon Monoxide, Carbon Dioxide, Nitrogen Oxides and Hydrogen Chloride gas. Extinguish fire with the following: Use water spray. Use CO2 dry chemical or foam. Heating can cause expansion or decomposition leading to violent rupture of containers.

PRECAUTIONS FOR USE

Exposure Limits:	Name	mg/m3 TWA	ppmTWA	<u>TWA Footnote</u>
	Trichlorosocyanuric Acid			
Other Exposure info:	None reported by Worksafe Australia. However, Decomposition product, Chlorine TLV:3 mg/m3, 1ppm (ceiling values) Ceiling Value - Is the concentration that should not be exceeded even instantaneously.			
Engineering Controls:	Maintain concentration below recommended exposure limit. Avoid generating and inhaling dust. Use with local exhaust ventilation or: Approved Combination particulate/gas respirator. (Inorganic vapour).			

PERSONAL PROTECTION

Protective Equipment: The following personnel protective equipment should be worn. Overalls or similar protective apparel. Safety glasses, goggles or face shield as appropriate. PVC gloves. Wash contaminated clothing and protective equipment before storing/re-using. Avoid skin and eye contact. Always work in a well ventilated area.

FLAMMABILITY

Fire Hazards: Non flammable. Keep away from heat, spars or naked flames.

Other Precautions: Keep away from combustible materials, solvents, ammonia, amines, urea, organic matter, inorganic reducing agents, strong bases and Calcium Hypochlorite. Protect from heat, ignition sources and moisture. Contact with water may liberate Nitrogen Trichloride gas.

Hazardous Reaction: Stable if dry. Reacts non-violently with water.

Materials to Avoid: Organic materials (including all flammable and combustible materials) - increased risk of fire and explosion.

Reducing

agents (readily oxidizable materials may react violently or explosively. Nitrogen containing compounds (for example, ammonia, ammonium, ammonium salts, urea) - may form hazardous Nitrogen Trichloride. Acids (especially Hydrochloric Acid) reaction generates chlorine gas and may be violent. Base for example, soda ash solutions) - Reaction may produce hazardous Nitrogen Trichloride. Water - reacts non-violently with water to form a bleach solution (Hypochlorous Acid plus Cyanurate). In strong solutions (more than 0.5% available chlorine) some Nitrogen Trichloride may be formed. Hydrated salts - may decompose producing heat and pressure in sealed containers. Hazardous decomposition products: Nitrogen Trichloride, Chlorine corrosivity.

Hazchem Code: 2PE

Toxicology: Oral LD50 (rat):490mg/kg
Dermal LD50 (rabbit):>2g/kg
Inhalation LC50 (rats, one hour exposure)>50 mg/l

Information on Ecological: Marine pollutant.

Effects

Environmental Protection: Highly toxic to aquatic life. Avoid contaminating waterways.

Risk Statement: R8 keep container dry. S26 In case of contact with eyes, rinse immediately with water and contact a doctor or Poisons Information Centre. S41 In case of fire and/or explosion do not breathe fumes.

Hazard Category: Harmful, Irritant

CONTACT INFORMATION

CONTACT: GENERAL MANAGER: (02) 9790 4200

DISCLAIMER

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