Material Safety Data Sheet

Issue Date 21 July, 2012

Product Name: LONG LASTING SWIMMING POOL TABLETS

Classified as hazardous according to criteria of Worksafe Australia

COMPANY DETAILS

Company Name	HY-CLOR AUSTRALIA PTY LTD
Address	Suite 5.01, 15 Orion Road, Lane Cove NSW 2066
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IDENTIFICATION

Product Code	1150
Product Name	TRICHLOROISOCYANURIC ACID
Shipping Name	TRICHLOROISOCYANURIC ACID, DRY-OXIDISER
Other Names	TRICHLORS-TRIAZINETROINE
Sold As	Long Lasting Swimming Pool Tablets
UN Number	2468
DG Class	5.1
Packing Group	II
Hazchem code	2PE
Poisons Schedule	S5
Product Use	Swimming Pool Disinfectant and Sanitiser

PHYSICAL DATA

Appearance	White tablet form
Melting Point	Decomposes at 225 ° C
Specific Gravity	1 at 20 ° C
Soluble in Water	Soluble, 1.2% @ 25 ° C

OTHER PROPERTIES

Odour Threshold	Sharp, chlorine-like bleach odour
pH Value	(1% solution) 2.7-2.9
Form	Solid
Molecular Weight	232.5

INGREDIENTS

Name	CAS	Proportion
Trichloroisocyanuric Acid	87-90-1	96.00-100.00%
Boric Acid	11113-50-1	0.00%-4.00%

SAFE HANDLING INFORMATION

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.
Other storage information	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 DISPOSAL

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 labeled 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 quantities 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/EXPLOSION HAZARD

Fire/Explosion 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.

HEALTH HAZARD INFORMATION

Heath Effects-

Acute – 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.
Acute – Eye	A severe eye irritant. Contamination of eyes can result in permanent injury.
Acute – 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.
Acute – 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.

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 quantities 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 labored 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.

PRECAUTIONS FOR USE

Exposure Limits	Name mg/m3 TWA ppmTWA TWA Foonote Trichloroisocyanuric Acid
Other Exposure Information	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 faceshield 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.
Work/Hygienic Practices	eye wash station and safety shower should be provided in the immediate work area.

FLAMMABILITY

Fire Hazards	Non flammable. Keep away from heat, sparks 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. Bases 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

OTHER INFORMATION

Toxicology	Oral LD50 (rat):490mg/kg Dermal LD50 (rabbit):>2g/kg Inhalation LC50 (rats, one hour exposure)>50mg/l
Information on Ecological Effects	Marine pollutant
Environmental Protection	Highly toxic to aquatic life. Avoid contaminating waterways.
Risk Statement	R8 keep container dry. S26 In case on 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 POINT

Contact	Any advice, recommendation, information, assistance, or service provided by Hy-Clor Australia in relation to the goods supplied by it or their use or application is given in good faith provided with a disclaimer for any liability or responsibility on the part of Hy-Clor Australia Pty Ltd. The customer accepts all risk and responsibility for use of the goods alone, or in combination with other products. All warranties, guarantees and conditions, other than those expressly stated, and whether implied by statute, common law, custom of the trade otherwise, are to the extent that the law permits expressly excluded. Mark Sheridan Technical Regulations Manager Telephone (02) 9498 2925