POOLPRIDE STABILISED CHLORINE TABLETS

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
POOLPRIDE STABILISED CHLORINE TABLETS

STATEMENT OF HAZARDOUS NATURE
Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation.

OTHER NAMES
C3-Cl3-N3-O3, C3Cl3N3O3, "s-triazine-2, 4, 6(1H, 3H, 5H)-trione, 1, 3, 5-trichloro", "s-triazine-2, 4, 6(1H, 3H, 5H)-trione, 1, 3, 5-trichloro", trichloro-s-triazinetrione, trichloro-s-triazinetrione, ACL85, CBD90, "isocyanuric chloride", "trichloroisocyanuric acid", "trichlorinated isocyanuric acid", "Swimming Pool Chlorine", "trichloroisocyanic acid", "Pool chlorine (Victorian DG Regs)", "1, 3, 5-trichloroisocyanuric acid", "1, 3, 5-trichloroisocyanuric acid", "trichloro S triazine trione", "1, 3, 5-trichloro-s-triazine-2, 4, 6(1H, 3H, 5H)-trione", "1, 3, 5-trichloro-s-triazine-2, 4, 6(1H, 3H, 5H)-trione", "trichloro-s-triazine-2, 4, 6(1H, 3H, 5H)-trione", "trichloro-s-triazine-2, 4, 6(1H, 3H, 5H)-trione", "1, 3, 5-trichloro-1, 3, 5-triazine-2, 4, 6-(1H, 3H, 5H)-trione", "1, 3, 5-trichloro-1, 3, 5-triazine-2, 4, 6-(1H, 3H, 5H)-trione", "1, 3, 5-trichloro-2, 4, 6-trioxohexahydro-s-triazine", "1, 3, 5-trichloro-2, 4, 6-trioxohexahydro-s-triazine", "1, 3, 5-triazine-2, 4, 6(1H, 3H, 5H)-trione-1, 3, 5-trichloro", "1, 3, 5-triazine-2, 4, 6(1H, 3H, 5H)-trione-1, 3, 5-trichloro", Symclosene, Symclosen, "trichloroiminocyanuric acid", Chloreal, "Premium Quality Granular Algaecide"

PROPER SHIPPING NAME
TRICHLOROISOCYANURIC ACID, DRY

PRODUCT USE
» The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating
atmosphere developing.Before starting consider control of exposure by mechanical ventilation.
Material is hygroscopic, absorbs moisture from surrounding air.
Used in compressed block form as a chlorinating agent (about 90% available chlorine) especially in swimming pools; a
disinfectant in household cleaners; an industrial deodorant; and as a topical anti-infective. Classified as a Schedule 5 (S5)
Poison when in compressed/tablet form: otherwise S7.

SUPPLIER
Company: Damar Industries Limited
Address:
Eastgate Business Park
800 Te Ngae Road
Rotorua
Telephone: +64 7 345 6007
Emergency Tel: 0800 2436 2255
Emergency Tel: 0800 CHEMCALL
Fax: +64 7 345 6019

Section 2 - HAZARDS IDENTIFICATION

CHEMWATCH HAZARD RATINGS

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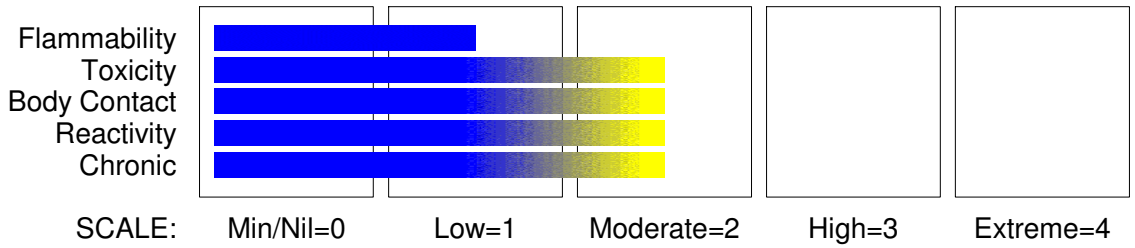

GHS Classification

Acute Aquatic Hazard Category 1
Acute Toxicity (Oral) Category 4
Oxidizing Liquid Category 2
Serious Eye Damage Category 1
Skin Corrosion/Irritation Category 2

EMERGENCY OVERVIEW

HAZARD
DANGER
Gazetted by ERMANZ:
5.1.1B 6.1D 6.3A 8.3A 9.1A 9.2D 9.3B
May intensify fire; oxidizer
Harmful if swallowed
Causes skin irritation
Causes serious eye damage
Very toxic to aquatic life
Slightly harmful in the soil environment
Ecotoxic to terrestrial vertebrates

PRECAUTIONARY STATEMENTS

Prevention
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep/Store away from clothing and other combustible materials.
Take any precaution to avoid mixing with combustibles.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.

Response
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
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.
Rinse mouth.
Collect spillage.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
N' , N' , N' - trichloroisocyanuric acid	87-90-1	>89
Decomposes in air and produces toxic fumes of nitrogen trichloride	10025-85-1	
and hypochlorous acid	7790-92-3	
Decomposes in water and produces toxic fumes of chlorine	7782-50-5	>2

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Section 4 - FIRST AID MEASURES

NEW ZEALAND POISONS INFORMATION CENTRE 0800 POISON (0800 764 766)
NZ EMERGENCY SERVICES: 111

SWALLOWED
• IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY.
• For advice, contact a Poisons Information Centre or a doctor.

EYE
» If this product comes in contact with the eyes:
• Wash out immediately with fresh running water.
• Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting
the upper and lower lids.

SKIN
» If skin contact occurs:
• Immediately remove all contaminated clothing, including footwear.
• Flush skin and hair with running water (and soap if available).

INHALED
• If fumes or combustion products are inhaled remove from contaminated area.
• Lay patient down. Keep warm and rested.

NOTES TO PHYSICIAN
» for poisons (where specific treatment regime is absent):

BASIC TREATMENT

• Establish a patent airway with suction where necessary.
• Watch for signs of respiratory insufficiency and assist ventilation as necessary.
Depending on the degree of exposure, periodic medical examination is indicated. The symptoms of lung oedema often do not manifest
until a few hours have passed and they are aggravated by physical effort.
If burn is present, treat as any thermal burn, after decontamination.
Excellent warning properties force rapid escape of personnel from chlorine gas thus most inhalations are mild to moderate. If
escape is not possible, exposure to high concentrations for a very short time can result in dyspnea, haemophysis and cyanosis
with later complications being tracheobroncho- pneumonitis and pulmonary oedema. Oxygen, intermittent positive pressure breathing
apparatus and aerosolysed bronchodilators are of therapeutic value where chlorine inhalation has been light to moderate. Severe
inhalation should result in hospitalisation and treatment for a respiratory emergency.
Any chlorine inhalation in an individual with compromised pulmonary function (COPD) should be regarded as a severe inhalation and
a respiratory emergency. [CCINFO, Dow 1988]
Diagnosed asthmatics and those people suffering from certain types of chronic bronchitis should receive medical approval before
being employed.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
» FOR SMALL FIRE:
• USE FLOODING QUANTITIES OF WATER.
• DO NOT use dry chemical, CO2, foam or halogenated-type extinguishers.

FIRE FIGHTING
• Alert Fire Brigade and tell them location and nature of hazard.
• May be violently or explosively reactive.
When any large container (including road and rail tankers) is involved in a fire,
consider evacuation by 800 metres in all directions.

FIRE/EXPLOSION HAZARD
• Combustible solid which burns but propagates flame with difficulty.
• Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture
with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine

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grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if
ignited.
Combustion products include: carbon monoxide (CO), carbon dioxide (CO_2), hydrogen chloride, phosgene, nitrogen oxides (NOx),
other pyrolysis products typical of burning organic material.
Contains low boiling substance: Closed containers may rupture due to pressure
buildup under fire conditions.
Material contains oxidising agent/organic peroxide. Oxygen provided makes fire fierce and self sustaining.

FIRE INCOMPATIBILITY
• Avoid storage with reducing agents.
• Avoid any contamination of this material as it is very reactive and any contamination is potentially hazardous.

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS
» Environmental hazard - contain spillage.
• Clean up all spills immediately.
• No smoking, naked lights, ignition sources.

MAJOR SPILLS
» Environmental hazard - contain spillage.
• Clear area of personnel and move upwind.
• Alert Fire Brigade and tell them location and nature of hazard.
Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING
• Avoid personal contact and inhalation of dust, mist or vapours.
• Provide adequate ventilation.

SUITABLE CONTAINER
• Glass container is suitable for laboratory quantities.
• DO NOT repack. Use containers supplied by manufacturer only.
For low viscosity materials
• Drums and jerricans must be of the non-removable head type.
• Where a can is to be used as an inner package, the can must have a screwed enclosure.

STORAGE INCOMPATIBILITY
• Contact with acids produces toxic fumes.
Many compounds containing more than one N-halogen bond are unstable
and exhibit explosive properties.
BRETHERICK L.: Handbook of Reactive Chemical Hazards.
• Avoid any contamination of this material as it is very reactive and any contamination is potentially hazardous.
• Avoid storage with reducing agents.
• Oxidising agents as a class are not necessarily combustible themselves, but can increase the risk and intensity of fire in many
other substances.
• Material is hygroscopic, i.e. absorbs moisture from the air. Keep containers well sealed in storage.
Avoid reaction with calcium hypochlorite, other bleaching agents, mineral oils and other organic compounds.
If mixed with a small amount of water, the concentrated solution (with pH around 2) may explode, owning to the evolution of
nitrogen trichloride. It is thought that hydrolysis leads to the formation of hypochlorous acid and dichloro-s-triazinetrione,
and the protonated acid then attacks the C=N bonds in the triazine ring lading to the formation of chloramine and nitrogen
trichloride. The dichloro compound is stable to acid in the absence of hypochlorous acid

STORAGE REQUIREMENTS
• Store in original containers.
• Keep containers securely sealed as supplied.
In addition, Goods of Class 5.1, packing group II should be:
• stored in piles so that
• the height of the pile does not exceed 1 metre.
• Material is hygroscopic, i.e. absorbs moisture from the air. Keep containers well sealed in storage.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m³	STEL ppm	STEL mg/m³
New Zealand Workplace Exposure Standards (WES)	hypochlorous acid (Chlorine)	0.5	1.5	1	2.9
New Zealand Workplace Exposure Standards (WES)	chlorine (Chlorine)	0.5	1.5	1	2.9

The following materials had no OELs on our records
• N' , N' , N' - trichloroisocyanuric acid: CAS:87- 90- 1
• nitrogen trichloride: CAS:10025- 85- 1

PERSONAL PROTECTION




RESPIRATOR
Type B-P Filter of sufficient capacity

EYE
• Chemical goggles.
• Full face shield may be required for supplementary but never for primary protection of eyes.

HANDS/FEET
• Wear chemical protective gloves, eg. PVC.
• Wear safety footwear or safety gumboots, eg. Rubber.
Suitability and durability of glove type is dependent on usage. Factors such as:
• frequency and duration of contact,
• chemical resistance of glove material,.
• DO NOT wear cotton or cotton-backed gloves.
• DO NOT wear leather gloves.

OTHER
• Overalls.
• PVC Apron.

ENGINEERING CONTROLS
• Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively
large, a certain proportion will be powdered by mutual friction.
• Exhaust ventilation should be designed to prevent accumulation and recirculation of particulates in the workplace.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE
A white crystalline powder, normally in a granular or tablet form and with a chlorine odour; moderately soluble in water forming
a mildly acidic solution. Soluble in chlorinated and highly polar solvents.
A highly reactive oxidising and chlorinating agent; slightly hygroscopic, releasing hypochlorous acid and nitrogen trichloride on
contact with water.

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PHYSICAL PROPERTIES
Solid.
Mixes with water.
Contact with acids liberates toxic gas.

Molecular Weight: 232.41
Melting Range (°C): 225- 250 (dec)
Solubility in water (g/L): Miscible
pH (1% solution): approximately 4.
Volatile Component (%vol): Negligible
Relative Vapour Density (air=1): Not available.
Lower Explosive Limit (%): Not available.
Autoignition Temp (°C): Not applicable
State: Divided solid

Boiling Range (°C): Not applicable.
Specific Gravity (water=1): Not available
pH (as supplied): Not applicable
Vapour Pressure (kPa): Negligible
Evaporation Rate: Not available
Flash Point (°C): Not Available
Upper Explosive Limit (%): Not available.
Decomposition Temp (°C): 246
Viscosity: Not Applicable

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY
- Presence of incompatible materials.
- Product is considered stable under normal handling conditions.
- Extremely high temperatures.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS
ACUTE HEALTH EFFECTS
» Harmful by inhalation and if swallowed.

» Irritating to eyes, respiratorysystem and skin.

CHRONIC HEALTH EFFECTS
» Cumulative effects may result following exposure*.
» * (limited evidence).

TOXICITY AND IRRITATION
» Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as
reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.
The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce
conjunctivitis.
The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is
often characterised by skin redness (erythema) and swelling the epidermis.

Section 12 - ECOLOGICAL INFORMATION

Dangerous for the ozone layer.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
This material and its container must be disposed of as hazardous waste.
Avoid release to the environment.
Refer to special instructions/ safety data sheets.

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle where possible
  Otherwise ensure that:
- licenced contractors dispose of the product and its container.

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Section 14 - TRANSPORTATION INFORMATION

Labels Required: OXIDIZING AGENT
HAZCHEM: None

UNDG:

Dangerous Goods Class:	5.1	Subrisk:	None
UN Number:	2468	Packing Group:	II

Shipping Name:TRICHLOROISOCYANURIC ACID, DRY

Air Transport IATA:

ICAO/IATA Class:	5.1	ICAO/IATA Subrisk:	None
UN/ID Number:	2468	Packing Group:	II
Special provisions:	None		

Shipping Name: TRICHLOROISOCYANURIC ACID, DRY

Maritime Transport IMDG:

IMDG Class:	5.1	IMDG Subrisk:	None
UN Number:	2468	Packing Group:	II
EMS Number:	F- A, S- Q	Special provisions:	None
Limited Quantities:	1 kg		

Shipping Name: TRICHLOROISOCYANURIC ACID, DRY

Section 15 - REGULATORY INFORMATION

REGULATIONS

N',N',N'- trichloroisocyanuric acid (CAS: 87-90-1) is found on the following regulatory lists;
International Council of Chemical Associations (ICCA) - High Production Volume List
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Dangerous Goods
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Hazardous Substances Register
New Zealand Inventory of Chemicals (NZIoC)
OECD Representative List of High Production Volume (HPV) Chemicals
Specific advice on controls required for materials used in New Zealand can be found at
http://www.ermanz.govt.nz/search/registers.html

Section 16 - OTHER INFORMATION

NEW ZEALAND POISONS INFORMATION CENTRE
0800 POISON (0800 764 766)
NZ EMERGENCY SERVICES: 111
» Classification of the preparation and its individual components has drawn on official and authoritative sources as well as
independent review by the Chemwatch Classification committee using available literature references.
A list of reference resources used to assist the committee may be found at:
www.chemwatch.net/references.

» The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether
the reported Hazards are Risks in the workplace or other settings.