



Paramount Pools & Spas

a division of PoolQuip Limited

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If you have a Chemical Emergency phone 111 and ask for Fire
In case of Poisoning contact The National Poisons Centre on 0800 POISON (0800 764 766)
The most current version of this document is available online at www.poolquip.co.nz

MATERIAL SAFETY DATA SHEET (MSDS)

1.0 Product & Company Information

Revision Date: April 2011
Product Name: **Sodium Dichloroisocyanurate Dihydrate**
Other Names: Pool Master Super Chlor, Spa Master Sanitizer, Dichlor, SDIC
Uses: For the sanitization of Swimming Pool Water and Spa Pool Water
Distributor Details: As per header and any of our authorised retailers and distributors

2.0 Hazard Data

Hazardous according to criteria of NOHSC/ASCC.
Classified as Dangerous Goods According to NZS 5433:1999.

Risk Phrases & Safety Phrases:

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
S2	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	Avoid release to the environment. Refer to special instructions / MSDS

ERMA New Zealand Approval Code: HSR001324

HSNO Hazard Classification: 5.1.1B 6.1D 6.1E 6.3A 6.4A 9.1A 9.2A 9.3C

3.0 Composition

Chemical Name:	Sodium Dichloroisocyanuric Dihydrate
CAS Number:	51580-86-0
Percentage Rating:	100% (65% active chlorine)

4.0 First Aid Measures

Description of necessary measures according to routes of exposure.

Swallowed:	Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek medical attention immediately.
Eyes:	Immediately flush eyes with water for at least 15 minutes. Do NOT interrupt flushing. Take care not to rinse contaminated water into the non-affected eye or onto the face. Seek immediate medical attention.
Skin:	If skin contact occurs, remove contaminated clothing and wash skin with running water. If irritation occurs seek medical advice.
Inhaled:	Remove victim from area of exposure – avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discoloration of the skin (which suggests a lack of oxygen in the blood – cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face

mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.

Advice to Doctor: Treat symptomatically. Delayed effects from exposure to chlorine (decomposition product) can include shortness of breath, severe headache, pulmonary oedema and pneumonia.

Aggravated medical

5.0 Fire Fighting Measures

Extinguishing Media Water spray (large quantities)

Hazards from Combustion Products Non combustible, but will support combustion of other materials

Special Protective Precautions and Equipment for Fire Fighters Sodium dichloroisocyanurate is a powerful oxidising agent and decomposes violently upon liberating oxygen. In case of fire, area should be evacuated and specialist fire fighters called in. Only large quantities of water should be used as an extinguishing agent. If excess water is not available DO NOT attempt to extinguish the fire, use the available water to prevent the spread of fire to adjacent property. Attending fire fighters should keep upwind if possible and wear full protective equipment including rubber boots and self-contained breathing apparatus. A fire in the vicinity of sodium dichloroisocyanurate should be extinguished in the most practical manner but avoid contaminating this material with the fire fighting agent, including water. Decomposes on contact with water evolving toxic chlorine gas and in the presence of small amounts of water, the explosive gas nitrogen trichloride. Once fire is extinguished, wash area thoroughly with excess water. Ensure that drains are not blocked with solid material. Maintenance of excess water during clean up operation is essential. Combustible material involved in the incident should be removed to a safe open area for controlled burning or for further drenching with water prior to collection for disposal.

Hazchem Code 2WE

6.0 Accidental Release Measures

Emergency Procedures Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred, advise local emergency services.

Methods and Materials Wear protective equipment to prevent skin and eye contact and

for Containment and Clean Up

breathing in vapours. Air supplied masks are recommended to avoid inhalation of toxic material. Do NOT return spilled material to original container, and do NOT mix fresh with recovered material. Do NOT add small amounts of water to sodium dichloroisocyanurate. Collect and transfer to large volume of water - do NOT use a metal container. To neutralise, as sodium sulfite (2.4Kg/Kg product). If no active chlorine remains, add soda ash (1.1Kg/Kg product) to effect complete neutralisation. Where a spill has occurred in a confined space or an inadequately ventilated enclosure and the material is damp and evolving chlorine, the rate of chlorine evolution may be reduced by covering the thinly spread solid with soda ash.

7.0 Handling & Storage

Precautions for Safe Handling

Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Avoid skin and eye contact and breathing in dust. Keep out of reach of children.

Conditions for Safe Storage (Including any compatibles)

Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials such as flammable, organic and combustible materials, ammonium salts, nitrogenous material, acids, water, reducing agents, strong bases, calcium hypochlorite, metals and sources of ignition. Protect from direct sunlight, moisture, food and feedstuffs. Keep dry, reactive with water, may lead to drum rupture. This product is hygroscopic. **This product has a UN classification of 2465 and a Dangerous Goods Class 5.1 (Oxidizers) according to The Australian Code for the Transport of Dangerous Goods by Road and Rail.**

Container Type

Use corrosion-resistant structural materials. Containers made of inert plastics are preferred.

8.0 Exposure Controls / Personal Protection

National Exposure Standards

No value assigned to this specific material by the New Zealand Occupational Safety and Health Service (OSH). However, Exposure Standard(s) for decomposition product(s):
Chlorine: WES-TWA 0.5ppm, 1.5mg/m³, WES-STEL 1ppm, 2.9mg/m³

WES – TWA = Workplace Exposure Standard – Time Weighted Average. The eight hour, time weighted average exposure is designed to protect the worker from the effects of long-term exposure.

WES – STEL = Workplace Exposure Standard – Short Term Exposure Limits. The 15 minute average exposure standard. Applies to any 15 minute period in the working day and is designed to protect the worker

against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWN; both short-term and eight-hour, time weighted average exposures should be determined.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Biological Limit Values

Engineering Controls

Ensure ventilation is adequate and that air concentrations of decomposition product(s) is/are controlled below quoted Exposure Standards. Avoid generating and breathing in dusts. Use with local exhaust ventilation or while wearing dust mask. Keep containers closed when not in use.

Personal Protection

RESPIRATOR: Wear an approved respirator with suitable filter for organic gases and vapours if engineering controls are inadequate (AS1715/1716). EYES: Chemical goggles to prevent splashing in the eyes (AS1336/1337). HANDS: Butyl rubber gloves break through time 4hr (AS2161). CLOTHING: Chemical-resistant coveralls and safety footwear (AS3765/2210).

9.0 Physical and Chemical Properties

Appearance	Crystalline Powder, granules or tablets
Formula	C3HCl2N3O3.Na
Odour	Chlorine Odour
Vapour Pressure	Not Applicable
Vapour Density	Not Applicable
Boiling Point	Not Applicable
Melting Point	240 deg C
Solubility in Water	250g/L @ 25 Deg C
Specific Gravity	2.03 (Water = 1)
Flash Point	Not Applicable
pH	6.5 (1% solution)
Rate of Solid Materials	Not Known
Decomposition Temperature	240 Dec C
Additional Information	

10.0 Stability and Reactivity

Chemical Stability

Powerful oxidising agent. Sodium dichloroisocyanurate reacts with water and acids evolving toxic chlorine gas and in the presence of small amounts of water, the explosive gas nitrogen trichloride. Decomposes in

	alkaline conditions evolving carbon dioxide, nitrogen and chloramines gases.
Conditions to Avoid	Avoid exposure to moisture, avoid exposure to heat. Avoid exposure to sunlight.
Incompatible Materials	Incompatible with combustible materials, ammonium salts, nitrogenous materials, acids and water.
Hazardous Decomposition Products	Chlorine
Hazardous Reactions	Sodium dichloroisocyanurate reacts with water and acids evolving toxic chlorine gas and in the presence of small amounts of water the explosive gas nitrogen trichloride. Decomposes in alkaline conditions evolving carbon dioxide, nitrogen and chloramine gases.

11.0 Toxicological Information

Toxicity Data	Oral LD50 Rat: 1355-1400mg/Kg
Health Effects – Acute	
Swallowed	Can result in nausea, vomiting, diarrhoea and gastrointestinal irritation.
Eye	Ajn eye irritant
Skin	Contact with skin may result in irritation
Inhaled	Material is irritant to the mucous membranes of the respiratory tract (airways). Inhalation of high concentrations may result in shortness of breath, chest pain, severe headache and lung damage including pulmonary oedema. Effects may be delayed.

12.0 Ecological Information

Ecotoxicity	Avoid contaminating waterways
Persistence and Degradability	No information available on persistence/degradability for this product
Mobility	Completely soluble in water.
Environmental Fate (Exposure)	Do NOT let product reach waterways, drains and sewers.
Bioaccumulative Potential	No information available on bioaccumulation for this product.

13.0 Disposal Considerations

Disposal	Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State and Federal Regulations or recycled/reconditioned at an approved facility.
Special Precautions for Land Fill or Incineration	Contact a specialist disposal company or the local waste regulator for advice. This should be done in accordance with 'The Hazardous Waste Act.

14.0 Transport Information

Land and Sea Transport

UN Number	2465
Shipping Name	Sodium Dichloroisocyanurate
Dangerous Goods Class	5.1
Packing Group	II
Hazchem Code	2WE

15.0 Regulatory Information

Classified as hazardous according to HS (minimum degrees of hazard) regulations 2001.

HSNO Hazard Classification	5.1.1B 6.1D 6.1E 6.3A 6.4A 9.1A 9.2A 9.3C
ERMA Approval Code	HSR001324

16.0 Other Information

None