

SAFETY DATA SHEET

PRODUCT NAME: POOL TREAT SPA CHLOR

Issue Date: 12 May 2023

IDENTIFICATION

Product Name: Pool Treat Spa Chlor
Other Names: SDIC; Sodium dichloro-s-triazine trione; Dichloroisocyanuric acid, sodium salt;
Product Code: PSC1, PSC2, PSC5, PSC25
Uses: Bleach or Sanitising chemical.
Supplier: HamChem Hamilton Chemicals Ltd, 75 Ruffell Rd, Hamilton
Phone: 07 974 4971 Web: www.hamchem.nz Email: info@hamchem.nz

- In emergency dial 111, and then ask for Fire, Ambulance or Police as necessary.
- In case of poisoning phone National Poisons Centre – 0800 764 766

HAZARD IDENTIFICATION



GHS Classification

Acute Toxicity (Oral) Category 4

Eye Irritation Category 2

Specific Target Organ Toxicity (single exposure) Category 3 - respiratory irritation

Hazardous to the aquatic environment (Acute) Category 1

Hazardous to the aquatic environment (Chronic) Category 1

Signal Word: WARNING

Hazard Statements

H302 Harmful if swallowed

H319 Causes serious eye irritation

H335 May cause respiratory irritation

H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

Prevention

P264 Wash hands thoroughly after handling

P270 Do not eat, drink or smoke when using this product

P280 Wear protective gloves/clothing and eye/face protection

P261 Avoid breathing dust/fume/gas/mist/vapours/spray

P271 Use only outdoors or in a well-ventilated area

P273 Avoid release to the environment

Response

P301+P312 IF SWALLOWED: Call a POISON CENTRE or Doctor/Physician if you feel unwell

P330 Rinse mouth

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P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention

P304 + P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

P312 Call a POISON CENTRE or Doctor/Physician if you feel unwell

P391 Collect spillage

Storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up

Disposal

P501 Dispose of container/contents to an approved waste facility in accordance with local regulations

COMPOSITION & INFORMATION ON INGREDIENTS

Chemical Entity	CAS No.	Proportion (%)
Sodium Dichloroisocyanurate, dihydrate (SDIC)	51580-86-0	>98%

FIRST AID MEASURES

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24-hour emergency service).

Recommended first aid facilities: Ready access to running water is required. Accessible eyewash is required.

Inhalation: 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.

Skin Contact: If skin contact occurs, remove contaminated clothing and wash skin with running water. If irritation occurs seek medical advice.

Eye Contact: If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a Doctor, or for at least 15 minutes.

Ingestion: Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek immediate medical assistance.

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

FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water spray (large quantities).

Hazchem or Emergency Action Code: 2X

Specific hazards arising from the chemicals: Non-combustible material. Environmentally hazardous.

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Special protective equipment and precautions for fire-fighters: Sodium dichloroisocyanurate is a powerful oxidizing agent and decomposes violently upon heating, liberating oxygen. In case of fire, area must be evacuated and specialist fire-fighters called. 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 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 cleaning 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. Heating can cause expansion or decomposition of the matter, which can lead to the containers exploding. If safe to do so, remove containers from the path of fire.

ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions: Clear area of all unprotected personnel. Do not allow container or product to get into drains, sewers, streams or ponds. If contamination of sewers or waterways has occurred, advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up: Wear protective equipment to prevent skin and eye contact and breathing in vapours. Air-supplied masks are recommended to avoid inhalation of toxic material. DO NOT return spilled material to original container for re-use. DO NOT add small amounts of water to sodium dichloroisocyanurate. Sweep up, avoiding generation of dust, then immediately spread as a thin layer in uncontaminated, dry, open area to reduce the possibility of local hot spots forming. Where a spill has occurred in confined space or an inadequately ventilated enclosure and the material is damp and evolving chlorine, the rate of chlorine evolution can be reduced by covering the thinly spread solid with soda ash. To neutralize add sodium sulphite (2.4kg/kg product). If no active chlorine remains, add soda ash (1.1kg/kg product) to effect complete neutralization.

HANDLING & STORAGE

Precautions for safe handling: Avoid skin and eye contact, and breathing in dust.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well-ventilated place. Store away from sources of heat or ignition. Store away from incompatible materials listed in Stability & Reactivity section of this SDS. Keep dry – reacts with water, may lead to drum rupture. Keep containers closed when not in use, check regularly for spills.

EXPOSURE CONTROLS & PERSONAL PROTECTION

Exposure standards: A workplace exposure standard (WES) has not been established by Worksafe NZ for this product. There is a general limit of 10 mg/m³ for dusts and mists when limits have not otherwise been established. However, Exposure Standard/s for decomposition products/s:

Chlorine: WES-TWA 0.5ppm, 1.5mg/m³; WES-STEL 1ppm, 2.9mg/m³
Hydrogen Chloride: Ceiling 5ppm, 7.5mg/m³
Nitric Oxide: WES-TWA 25ppm, 31mg/m³
As published by the New Zealand Workplace Exposure Stds (April 2022).

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

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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-TWA; both short-term and eight-hour, time-weighted average exposures should be determined.

WES – Ceiling (Workplace Exposure Standard – Ceiling) – a concentration that should not be exceeded during any part of the working day.

Engineering controls: Ensure ventilation is adequate and that air concentrations of decomposition product/s is/are controlled below quoted Exposure Standards. Keep containers closed when not in use. If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) as a basis must be carried out to determine the minimum PPE requirements.

Personal Protective Equipment: The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, DUST MASK.

Wear overalls, chemical goggles and impervious gloves. Avoid generating and inhaling dusts. If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

PHYSICAL & CHEMICAL PROPERTIES

Physical state:	White granules
Odour:	Chlorine
Molecular Formula:	$C_3HCl_2N_3O_3 \cdot 2H_2O \cdot Na$
Solubility in water:	Soluble in water.
Specific Gravity:	2.03 (water = 1)
Relative Vapour Density (air=1):	Not available
Vapour Pressure (20 °C):	Not available
Flash Point (°C):	Not applicable
Flammability Limits (%):	Not applicable
Autoignition Temperature (°C):	Not applicable
Solubility in water (g/L):	250 g/L @ 25°C
Melting Point/Range (°C):	240
Decomposition Point (°C):	>240
pH:	6.5 (1% solution)

STABILITY & REACTIVITY

Reactivity: 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.

Chemical Stability: Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Possibility of 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.

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Decomposes in alkaline conditions evolving carbon dioxide, nitrogen and chloramine gases. Corrosive to most metals in the presence of moisture.

Conditions to Avoid: Avoid exposure to heat, sources of ignition, and open flame. Avoid contact with foodstuffs. Avoid exposure to moisture.

Incompatible Materials: Incompatible with acids, ammonia, bases, calcium hypochlorite, reducing agents, organic solvents and organic compounds.

Hazardous Decomposition Products: Chlorine, Hydrogen Chloride and Nitric Oxide.

TOXICOLOGICAL INFORMATION

TOXICITY DATA

Oral: Using LD50's for ingredients, the calculated LD50 (oral, rat) for the mixture is >5,000 mg/kg. Data considered includes: Sodium dichloroisocyanurate, dihydrate 500-1600 mg/kg (rat).

Dermal: Using LD50's for ingredients, the calculated LD50 (dermal, rat) for the mixture is >5,000 mg/kg. Data considered includes: Sodium dichloroisocyanurate, dihydrate >5,000 mg/kg (rabbit).

Inhaled: Using LD50's for ingredients, the calculated LD50 (inhalation, rat) for the mixture is >5,000 ppm. Data considered includes: Sodium dichloroisocyanurate, dihydrate no data available.

CHRONIC

Sensitisation: No ingredient present at concentrations >0.1% is considered a sensitizer.

Mutagenicity: No ingredient present at concentrations >0.1% is considered a mutagen.

Carcinogenicity: No ingredient present at concentrations >0.1% is considered a carcinogen.

Reproductive/Developmental: No ingredient present at concentrations >0.1% is considered a reproductive or developmental toxicant or have any effect on or via lactation.

Systemic: No ingredient present at concentrations >1% is considered a target organ toxicant.

Aggravation of existing conditions: None known.

ECOLOGICAL INFORMATION

No specific data is available for this product. Where available, ecotoxicological data has been researched and data for the mixture calculated. The results of these calculations are presented below. The product is considered to have the following ecotoxicity groups:

Aquatic: Using EC50's for ingredients, the calculated EC50 for the mixture is <1 mg/L. Data considered includes: Sodium dichloroisocyanurate, dihydrate 0.25 mg/L (96hr, Rainbow trout), 0.28 mg/L (48hr, Daphnia magna).

Bioaccumulation: No data

Degradability: Not readily biodegradable

Soil: The EPA has not classified the mixture as ecotoxic in the soil environment. The soil toxicity value for the mixture is ≥ 100 mg/kg.

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Terrestrial invertebrate: No evidence of toxicity towards terrestrial invertebrates.

Biocidal: No data

Environmental effect levels: No EELs are available for this mixture of ingredients.

DISPOSAL CONSIDERATIONS

Restrictions: There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.

Disposal method: Disposal of this product must comply with the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.

Contaminated packaging: Rinse containers with water before disposal. Preferable to recycle container, otherwise send to landfill or similar.

TRANSPORT INFORMATION

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a hazardous substance for transport.

UN number: 3077

Class: 9 – Miscellaneous

Packing group: III

Hazchem code: 2X

Proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Dichloroisocyanuric acid, sodium salt dihydrate)

Precautions: Ecotoxic

REGULATORY INFORMATION

EPA Approval code: HSR002684, Water Treatment Chemicals (Subsidiary Hazard) Group Standard 2020

HSNO Classifications: 6.1D, 6.4A, 6.1E, 9.1A

OTHER INFORMATION

End of SDS.