



## SAFETY DATA SHEET

**PRODUCT NAME:** POOL TREAT CONDITIONER

July 2013

### IDENTIFICATION

**Product Name:** Pool Treat Conditioner  
**Other Names:** Sodium hydrogen carbonate; Baking soda; Bicarbonate of soda; Sodium bicarbonate FG grain, Nahcolite, Sodium acid carbonate, Carbonic acid monosodium salt.  
**Product Code:** PC1, PC2.5, PC6, PC25  
**Uses:** Manufacture of effervescent salts and beverages, leavening agent, artificial mineral water, bath salt ingredient, pharmaceuticals, water softener, fire extinguishers, cleaning preparations, laboratory reagent, stock feed buffer, It is a Food Additive, E500 (acidity regulator, anticaking agent, raising agent), a feed additive and a buffer and neutralizer in the Beverage industry. It is also used as an abrasive in toothpaste, in dry chemical extinguishers, to absorb odours and in the manufacture of speciality chemicals and pharmaceuticals.  
**Supplier:** HamChem Hamilton Chemicals Ltd, 355 Kahikatea Drive, Hamilton  
Phone: 078475840, Fax 078475882, info@hamchem.co.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

#### WARNING

**Keep out of reach of children**

**Read label and SDS thoroughly before use.**

**HSNO Classifications:** 6.1E, 6.3B, 6.4A

**Transport:** Not classified as a Dangerous Good under NZS 5433:1999 Transport of Dangerous Goods on Land.

**Hazard Statements:** May be harmful if swallowed, inhaled or in contact with skin. Causes mild skin and eye irritation.

**Precautions:** Wash all parts of the body that come into contact thoroughly after handling.

### COMPOSITION & INFORMATION ON INGREDIENTS

Chemical Entity	CAS No.	Proportion (%)
Carbonic acid, monosodium salt	144-55-8	> 99%
Impurities		< 1%

### FIRST AID MEASURES

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HamChem Ltd, 355 Kahikatea Drive, Hamilton, New Zealand. Phone 07 847 5840 Fax 07 847 5882 E-Mail - info@hamchem.co.nz

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**Inhalation:** Remove victim from area of exposure - avoid becoming a casualty. Seek medical advice if effects persist.

**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, wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

**Ingestion:** Rinse mouth with water. If swallowed, give a glass of water to drink. If vomiting occurs give further water. Seek medical advice.

**Notes to physician:** Treat symptomatically.

### **SYMPTOMS AND EFFECTS, ACUTE AND DELAYED, FROM EXPOSURE**

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

**Ingestion:** No adverse effects expected, however large amounts may cause nausea and vomiting.

**Eye contact:** May be an eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.

**Skin contact:** Contact with skin will result in mild irritation.

**Inhalation:** Breathing in dust may result in respiratory irritation.

**Long term effects:** No information available for the product.

<b>FIRE FIGHTING MEASURES</b>
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**Extinguishing media:** In case of fire, use appropriate extinguishing media most suitable for surrounding fire conditions: water, water spray, dry powder, foam, carbon dioxide (CO<sup>2</sup>).

**Extinguishing media which must not be used for safety reasons:** None

**Hazards from combustion products:** Carbon oxides

**Fire fighting:** Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Use standard procedure for chemical fires. Prevent, by any means available, spillage from entering drains or water courses. Use water delivered as a fine spray to control fire and cool adjacent area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.

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**Fire/explosion hazard:** Non-combustible material. Avoid generating dust, particularly clouds of dust in a confined or unventilated space. Power handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting. Combustion products include: carbon monoxide (CO), carbon dioxide (CO<sup>2</sup>), other pyrolysis products typical of burning organic material.

**Fire incompatibility:** Non-combustible material.

ACCIDENTAL RELEASE MEASURES
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**Minor spills:** Clean up all spills immediately. Stop spill if safe to do so. Avoid contact with skin and eyes. Avoid generating dust. Pick up and transfer to properly labeled containers for disposal. After cleaning, flush away traces with water.

**Major spills:** Clear area of personnel. Alert Fire Brigade and tell them location and nature of hazard. Control personal contact by using protective equipment. Prevent spillage from entering drains, sewers and water courses. Recover product wherever possible. Put residues in labeled plastic pails or other suitable sealed containers for disposal. If contamination of drains or waterways occurs, advise emergency services.

HANDLING & STORAGE
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**Procedure for 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. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with skin and eyes. Keep containers closed until ready for use. Avoid dust formation.

**Suitable container:** Food Grade polyethylene coated paper bags, fibre drums or polyethylene/propylene big bags. Packing as recommended by manufacturer. Check all containers are clearly labeled and free from leaks.

**Storage incompatibility:** Avoid storage with monoammonium phosphate or sodium-potassium alloy. Avoid contamination, store away from Dangerous Goods and Toxic Substances.

**Storage requirements:** Store tightly closed in dry, cool well ventilated conditions out of direct sunlight. Observe manufacturer's storing and handling recommendations.

EXPOSURE CONTROLS & PERSONAL PROTECTION
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**Exposure standards:**

Source	Material	TWA ppm	TWA mg/m <sup>3</sup>	STEL ppm	STEL mg/m <sup>3</sup>	Peak ppm	Peak mg/m <sup>3</sup>	TWA F/CC
New Zealand WES	Inspirable dust		10 mg/m <sup>3</sup>					

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2010								
New Zealand WES 2010	Inspirable dust		3 mg/m <sup>3</sup>					

**Material data:** No exposure limits set by OSH or NOHSC.

**Airbourne exposure limits:** No exposure limits set by OSH or NOHSC.

**Ventilation system:** A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

### PERSONAL PROTECTION EQUIPMENT (PPE)

**Personal respirators (NIOSH approved):** For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Skin protection:** Wear impervious protective clothing, including gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Eye protection:** Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

### PHYSICAL & CHEMICAL PROPERTIES

**Appearance:** Powder/Crystalline, white.

#### Physical properties:

Property	Value
Molecular Weight:	84.01
Melting Range (°C):	50°C (decomposition starts)
Solubility in water (g/L, 20°C):	96
pH (1% solution):	8.4
Volatile Component (%vol):	Nil
Relative Vapour Density (air=1):	Not Applicable
Lower Explosive Limit (%):	Not Applicable
Autoignition Temp (°C):	Not Available
State:	Solid

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Boiling Range (°C):	Not applicable
Specific Gravity (water=1):	2.159
pH (as supplied):	Not Available
Evaporation Rate:	Not Applicable
Flash Point (°C):	Not Applicable
Upper Explosive Limit (%):	Not Applicable
Decomposition Temp (°C):	>270°C
Viscosity:	Not Available
Risk of explosion:	Not Applicable
Bulk Density	Not Available

<b>STABILITY &amp; REACTIVITY</b>
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**Conditions contributing to instability:** Product is stable under normal conditions of use, storage and temperature. Avoid excessive heat, moisture, incompatible materials. Reacts with acids to form carbon dioxide. Dangerous reaction with monoammonium phosphate dry chemical extinguishing agent. Moisture accelerates this reaction. Reacts violently with sodium-potassium alloy. Keep containers dry and tightly closed to avoid moisture absorption and contamination. No decomposition if stored under normal conditions of use. Thermal decomposition can lead to release of carbon oxides. Hazardous polymerization will not occur.

<http://toxnet.nlm.nih.gov/cgi-bin/sis/search/r?dbs+hsdb:@term+@na+SODIUMBICARBONATE>

<b>TOXICOLOGICAL INFORMATION</b>
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## POTENTIAL ACUTE HEALTH EFFECTS

### Acute health effects:

**Swallowed:** Health injuries are not known or expected under normal use. Large doses may cause gastrointestinal upsets, with large amounts of carbon dioxide being produced.

**Eye:** May cause mild irritation.

**Skin:** The material is not thought to produce adverse health effects or skin irritation following contact.

**Inhaled:** Inhalation of dust may cause coughing and irritation of the respiratory tract.

**Chronic health effects:** Chronic over-ingestion may cause metabolic alkalosis, cyanosis and hypernatremia. Not considered to be mutagenic, carcinogenic or a reproductive toxin.

## TOXICITY AND IRRITATION

### Toxicity:

Not hazardous

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Oral LD<sub>50</sub> (rat): >5000mg/kg.

**Irritation:**

Mild irritation of eyes and respiratory tract.

Skin irritation/corrosion Rabbit GLP study 40 CFR 798.4470: Slightly irritating

Eye irritation/corrosion Rabbit EPA TSCA 40 CFR 798.4500 Draize test: Minimally irritating

Irritating (dose of 220mg)

<http://incchem.org/documents/sids/sids/sodbicarb.pdf>

ECOLOGICAL INFORMATION
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**Ecotoxicity:**

48 hour EC<sub>50</sub> *Daphnia magna* (water flea): >1000mg/l

96 hour LC<sub>50</sub> Rainbow Trout: >7,700 mg/L

48 hour LC<sub>50</sub> *Apis mellifera* (Honeybee): >24μ/bee

**Persistence and degradability:** Inorganic compound, found naturally in the environment. The natural mineral form is known as nahcolite. Sodium bicarbonate will absorb moisture and gradually decompose into sodium carbonate, water and carbon dioxide.

**Mobility:** Sodium bicarbonate is present in the environment predominantly as sodium and bicarbonate ions in the aquatic environment.

**Environmental Fate (exposure):** Not expected to present adverse effects on the environment.

**Bioaccumulative potential:** Will not accumulate in living tissues.

<http://incchem.org/documents/sids/sids/sodbicarb.pdf>

DISPOSAL CONSIDERATIONS
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Recycle wherever possible. Consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. Dispose of by: burial in a licensed land-fill or incineration in a licensed apparatus (after admixture with suitable combustible material). Empty contaminated packaging should be taken for local recycling, recovery or waste disposal.

TRANSPORT INFORMATION
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**HAZCHEM:** None

**NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: UN, IATA, IMDG**

Not classified as a Dangerous Good under NZS 5433:2007 Transport of Dangerous Goods on Land.

REGULATORY INFORMATION
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**HSNO Classifications:** 6.1E, 6.3B, 6.4A

**Regulations:**

Non hazardous.

Sodium Bicarbonate, Food Additive E 500), is found on the following regulatory lists:

New Zealand - Australia New Zealand Food Standards Code - Food Additives - Schedule 1

Permitted uses of food additives by food type

New Zealand - Australia New Zealand Food Standards Code - Food Additives - Schedule 2

Miscellaneous additives permitted in accordance with GMP in processed foods specified in Schedule 1 CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP

Sodium bicarbonate is classified by the U.S. Food and Drug Administration (FDA) as a 'Generally Recognised as Safe' (GRAS) ingredient in food with no other limitation than current good manufacturing practice (FDA, 1978; FDA, 1983).

EU approved food additive (EU, 2000) and a feed ingredient (EU, 1998).

Sodium Bicarbonate, is found on the following chemical inventories:

TSCA (U.S Environmental Protection Agency) Inventory

AICS (Australian Inventory of Chemical Substances)

DSL (Canadian Domestic Substances List)

ENCS (Japanese Inventory of Chemical Substances)

<b>OTHER INFORMATION</b>
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**Key to abbreviations:**

**End of SDS.**

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