Safety Data Sheet

1. IDENTIFICATION

Product Name Pool Salt; Water softener Salt

Other Names Sodium Chloride (salt)

Recommended Uses and Restrictions Used by general public in swimming pools and for water softening applications

Supplier Address

Central Pacific Chemicals Pte Ltd
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2. HAZARD IDENTIFICATION

NOT hazardous according to criteria of the Globally Harmonised System of Classification and Labelling (GHS)
NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Name	Formula	CAS Number	Concentration
Salt (sodium chloride)	NaCl	7647-14-5	>99.995%

4. FIRST AID MEASURES

Swallowed	Rinse mouth with water. Give water to drink provided person is conscious. Never give anything by mouth to an unconscious person. Do NOT induce vomiting (vomiting is likely to occur). Obtain immediate medical attention, especially if vomiting has not occurred.
Eye	Immediately flush eyes with plenty of water for 15 minutes, holding eyelids open. In all cases of eye contamination, it is a sensible precaution to seek medical advice.
Skin	Remove victim from exposure to fresh air. If not breathing, apply artificial respiration, if breathing is difficult, give oxygen. Seek medical attention if effects persist.
Inhaled	Remove victim from exposure to fresh air. If not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if effects persist.
Advice to doctor	Treat Symptomatically
Medical Conditions Aggravated by exposure	May aggravate pre-existing dry skin conditions such as dermatitis.

5. FIREFIGHTING MEASURES

General Measures
Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire if it can be done without risk.

Flammability Conditions
Salt is non-flammable but static electricity can be generated by pneumatic conveying.

Extinguishing Media
In case of fire, use appropriate extinguishing media most suitable for surrounding fire conditions (dry chemical, carbon dioxide, water spray or foam). Salt poses no fire or explosion hazard if involved in a fire, therefore use fire fighting procedures suitable for surrounding areas. Salt is not combustible.

Fire and Explosion Hazard
Salt poses no fire or explosion hazard if involved in a fire, therefore use firefighting procedures suitable for surrounding area. Salt is not combustible.

Hazardous Products of Combustion
Salt withstands temperatures up to its melting point and beyond without decomposing, but at very high temperatures (greater than approximately 800 deg C) a vapor may be emitted which is particularly irritating to the eyes. Contains no water of crystallization. Does not react with alkalis at ordinary temperatures. When heated to decomposition at a very high temperature, it emits toxic fumes of chlorine and sodium oxide.

Special Fire Fighting Instructions
Do NOT allow fire fighting water to reach waterways, drains or sewers. Store firefighting water for treatment.

Personal Protective Equipment
Fire fighters should wear a positive – pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves).

Flash Point
Non- flammable.

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure
Recover product where practical. Contain spills to prevent release to water systems or environment.

Clean up Procedures
Recover product where practical, vacuum or sweep up remnants (avoid generating dust) & dispose of in sealed containers to licensed waste.

Containment
Contain spills to prevent release to water systems or environment.

Environmental Precautionary Measures
Prevent the product from reaching drains or waterways.

Evacuation Criteria
Evacuate all unnecessary personnel

Personal Precautionary Measures
Personnel involved in the clean-up should wear full protective clothing as listed in section 8.

7. HANDLING AND STORAGE

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 eyes, skin, and clothing. Do not inhale product dust/fumes.
Salt dust Is non-flammable, but static electricity can be generated by pneumatic conveying, therefore pipes should be bonded and earthed, especially in environments where a spark could prove hazardous.

Storage
Store in a cool, dry, well-ventilated area. Store away from oxidizing materials. 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 as listed in section 10. Due to its hygroscopic nature, salt should be stored in a dry atmosphere and away from concentrated acids. Absorbs moisture if the relative humidity is above 75%. Product should be stored in such a way that it does not present a hazard if product were to fall. This product is not classified dangerous for transport according to The Australian Code for the Transport of Dangerous Goods by Road and Rail.

Container
Suitable containers include plastic bottles or drums, multi-ply woven plastic, other plastic, or multi wall paper bag with sealed plastic liner. Keep out of sunlight to prevent deterioration of packaging material.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

General
No exposure standard has been established for this product by the Australian Safety and Compensation Council (ASCC). However, the exposure standard for dust not otherwise specified is 10mg/m3 (for inspirable dust) and 3mg/m3 (for respirable dust).
NOTE: The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5-day working week.
These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept 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.

Exposure Limits – No data available
Biological Limits – No data available

Engineering Measures
Under normal circumstances engineering controls are not required however if use creates dust to a level that is a discomfort to workers a local exhaust system is recommended. Structural integrity of various metals used in equipment and structures should be regularly checked as salt accelerates corrosion of most common metals (especially in damp conditions). Iron, steel, zinc, and aluminum are particularly susceptible, where brass, bronze and stainless steel are resistant.

Personal Protection Equipment

RESPIRATOR: If the process is such that salt is generated, a disposable face mask should be worn. (AS1715/1716)
EYES: Wear chemical safety goggles in situations where contact with the eyes may occur (AS1336/1337).
HANDS: Gloves to be worn if prolonged contact is anticipated. Dry salt and concentrated solutions can cause withdrawal of fluid from skin (AS2161).
CLOTHING: Long – sleeved protective clothing and safety footwear (AS3765/2210).

Special Hazards Precautions

Structural integrity of various metals used in equipment and structures should be regularly checked as salt accelerates corrosion of most common metals (especially in damp conditions). Iron, steel, zinc and aluminum are particularly susceptible, while brass, bronze and stainless steel are fairly resistant.

Work Hygienic Practices

Skin should be washed to remove salt. Dry salt and concentrated solutions can cause withdrawal of fluid from the skin. An eyewash and hand washing facilities should be readily available.

9.PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Colour	Translucent to opaque white crystals or powder
Odour	Nil
pH range	6.5 – 7.5
Melting Point/Freezing Point	801˚C
Boiling Point	1413˚C at 101.3kPa
Flash Point	Not available
Evaporation Rate	Not available
Flammability	Not applicable
Upper. lower flammability or explosive	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Density	2.163 gm/100 @ 0˚C 39.12gm/100ml @ 100˚C
Solubility	35.7 gm/ 100ml @ 0˚C 39.12gm/100ml @ 100˚C
Partition Coefficient	Not available
Auto Ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available

10. STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions
Chemical Stability	Stable. Slightly hygroscopic.
Possibility of Hazardous Products	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Incompatible materials (Bromine trifluoride, lithium, strong acid)
Incompatible Materials	Bromine trifluoride, lithium, strong acids
Hazardous Decomposition Products	When heated to decomposition at a very high temperature it emits toxic fumes of chlorine and sodium oxide. May evolve chlorine gas when in contact with strong acids

11. TOXICOLOGICAL INFORMATION

Acute Toxicity
Ingestion: Salt is an essential constituent of the diet. It provides important body electrolytes and is the source of hygroscopic acid present in the gastric juices. The blood stream contains nearly 1% sodium chloride. In normal industrial use salt is non-hazardous. Acute and chronic toxic effects can result from the ingestion of excessive amounts of either salt or brine. Salt should not be used as an emetic to induce vomiting. High concentrations produce inflammatory reactions in the gastrointestinal tract and can cause vomiting, diarrhoea, convulsions, and collapse. The ingestion of hypertonic solutions can cause fatal disturbance of body electrolyte and fluid balance particularly in the young and elderly. Less than a tablespoon of salt may severely poison an infant and sometimes prove fatal. May cause vomiting, diarrhoea, anorexia, thirst, fever, and convulsion after excessive ingestion. Dehydrating may occur in most internal organs; central nervous system may be affected resulting in confusion or coma.

Skin Corrosion/ Irritation
Irritation after prolonged contact. Dry salt and concentrated solutions can cause withdrawal of fluid from the skin and may, on prolonged contact, produce irritation.

Serious Eye Damage/ Eye Irritation
Dust exposure may cause physical irritation to the eyes because of the particulate nature of the product.

Respiratory or Skin Sensitization
Abrasive irritant to mucous membranes. May give salty taste or cause irritation to nose and throat. Symptoms could be coughing, sore and dry throat.

Germ Cell Mutagenicity – No data available

Carcinogenicity – No data available

Specific Target Organ Toxicity (STOT) – Single Exposure – No data available

Aspiration Hazard – No data available

Chronic
There is no consensus in the scientific community about the relationship between salt and hypertension/elevated blood pressure. Some medical practitioners believe that high levels of salt can cause hypertension, but there is no evidence that this is so in healthy, normotensive people. There is evidence however that severe salt restriction can lower blood pressure in one third to one half of individuals with hypertension. It is therefore best assessed on an individual basis.

Toxicity Data
Orally in rats LD 50 = 3000 mg/kg
Orally in humans TDLO = 12357 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxity – No data available

Persistence and Biodegradability – No data available

Bioaccumulative potential – No data available

Mobility in soil – No data available

Other adverse effects – No data available

13. DISPOSAL CONSIDERATIONS

General Information
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.
Contact a specialist disposal company or the local waste regulator for advice. Collect solid salt in a conventional manner, wash the spill area down with water if necessary.

14. TRANSPORT INFORMATION

UN Number – No data available

Proper Shipping Name – Iodized Salt

Transport Hazard Class – No data Available

Packing Group – Not applicable

Environmental Hazards for Transport Purpose
During transport, should be covered to prevent rain or physical damage. Keep dry.

Additional Information – Not Applicable

Hazchem or Emergency Action Code – Not Applicable

15. REGULATORY INFORMATION

Safety, Health, and Environmental Regulations/ Legislation
Considered naturally occurring chemical by AICS (Australian Inventory of Chemical Substances) when used industrially.

16. OTHER INFORMATION

Date Authorized: 14/12/2021 Replaces: 10/10/18

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.