



Company Details:

Waterwell Projects (PTY) LTD

Reg No. 2001/018862/07

Waterwell Projects (PTY) LTD
Unit 4 Megazone Park
Hertford Junction R512
Lanseria
1748

Tel: 011 300 9917/8 or 073 077 0973

Fax: 086 605 9360

Poison Centre: **+27 21 689 5227**

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

a) Identification of the substance or preparation :

- 1.1 Commercial name : Waterwell Aqua Balance 1 (packed 1kg, 2kg, 5kg or 25kg)
- 1.2 Chemical name : Sodium Bicarbonate.
- 1.3. Synonyms : Baking soda, bicarbonate of soda, nahcolite, sodium bicarbonate, sodium hydrogen carbonate
- 1.4. Chemical formula : NaHCO_3
- 1.5. UN No: N/A
- 1.6. CAS No : 144-55-8
- 1.6. EEC No :

b) Information of Distributor :

Waterwell Projects (PTY) LTD
Unit 4 Megazone Park
Hertford Junction R512
Lanseria 1748
Tel: 011 300 9917/8 or 073 077 0973
Fax: 086 605 9360

Alternate suppliers:

CJP Chemicals (Pty) Ltd	or:	Crossmill Chemicals CC
P. O. Box 1353		P O Box 1272
Cresta 2118		Lonehill 2062
32 Tiger Moth ave		34 Renico Crescent Lea Glen,
Aeroton 2190		Roodepoort, Gauteng 2195
Tel: 011 494 6700		Tel: 011 472 4986
Fax: 011 494-6701		Fax: 011 472 0730

2. COMPOSITION / INFORMATION ON INGREDIENTS

Dangerous ingredient	% w/w	Hazard classification	Risk phrases
Sodium Bicarbonate	min. 99%	None	

3. DESCRIPTION OF HAZARDS

Irritation of mucous membrane and tissue

Runoff from fire-control or dilution water could cause pollution.

4. FIRST AID MEASURES

4.1 Contact with the skin:

Immediately remove contaminated clothing under running water.

Flush body with plenty of water for at least 15 minutes.

4.2 Contact with the eyes:

Flush eyes with water for 15 minutes, holding eyelids open while washing.

Seek medical attention.

4.3 Ingestion

Do not induce vomiting. Rinse mouth and administer fresh water if subject is conscious.

Seek medical attention.

4.4 Inhalation

Remove subject to fresh air, blow nose.

Seek medical attention in case of respiratory symptoms.

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media :

Water CO₂

5.2 Extinguishing media not to be used :

Powder based on ammonium salt and halogenous extinguishing media.

5.3 Special hazards resulting from exposure to the combustion products, or produced gloves :

Extinguish with big quantities of water (small quantities may aggravate the situation). Product is not flammable, but may decompose at high temperatures, thus emitting toxic gases. If the fire only affects part of the drums, isolate them from the rest by taking them if possible to a well ventilated area and letting them consume. For small fires CO₂ extinguishers can be used.

5.4 Special protective equipment for firefighters:

Self-contained breathing equipment to protect the respiratory tracts, as well as clothes and gloves suitable for skin protection.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions :

See Section No 8

6.2 Environmental precautions :

Prevent product from reaching the sewage system or superficial water. If product reaches a natural water-course, warn the civil protection authorities.

6.3 Cleaning up method:

Sweep and fully collect the spilled product. If there is some non-polluted product left separate it from the rest and collect it into the original drum or another clean container with inner plastic bag; this product can normally be used.

Dirty product must be collected from the ground into the original drum or another clean container with inner plastic bag and must be destroyed.

Product contaminated with water or other chemical products must not be transported. It must be immediately diluted with plenty of water and destroyed.

7. HANDLING AND STORAGE

7.1 Handling :

Do not produce dust. Handle far from other chemicals. Do not smoke. See Section 8.

7.2 Storage :

Keep product in suitable closed containers (metallic or wooden containers must not be used), in a fresh, dry and ventilated place, far from any ignition source and other chemical products. If product is stored with other products, it should be placed in a separate compartment near the exit door, which should be free from obstacles, in order to take product away quickly if necessary.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

VENTILATION:

RESPIRATORY PROTECTION: Respiratory protection is required if dust levels are high (>10mg/m³). An approved dust/mist respirator should be worn in dusty environment.

EYE PROTECTION:

SKIN PROTECTION: Avoid skin and eye contact and inhalation of dust. Wear overalls, safety glasses or goggles and impervious (rubber) gloves.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

WORK HYGIENIC PRACTICES: Always wash hands before smoking, eating, drinking or using the toilet

EXPOSURE GUIDELINES:

SECTION 8 NOTES:.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	White crystalline solid
ODOUR:	odourless
PHYSICAL STATE:	
pH AS SUPPLIED:	8.4 (10g/L solution)
BOILING POINT:	No data available
MELTING POINT:	Starts to decompose at 70°C
FREEZING POINT:	No data available
VAPOR PRESSURE (mmHg):	No data available
VAPOR DENSITY (AIR = 1):	No data available

SPECIFIC GRAVITY (H₂O = 1): 2.159 compressed solid. 1.0 for granular form (bulk density)

SOLUBILITY IN WATER: 96g/L (20°C)

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal temperatures and pressures..

CONDITIONS TO AVOID: Decomposes with heat to release carbon dioxide

INCOMPATIBILITY: Reacts with acids to release carbon dioxide

HAZARDOUS DECOMPOSITION: Reacts with acids to release carbon dioxide

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: Oral LD50(rat): 4220mg/kg

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY: Data not available

PRECAUTIONS: Product is rated as non-hazardous to aquatic species

13. DISPOSAL CONSIDERATIONS

Into landfill using approved waste disposal operative.

14. TRANSPORT INFORMATION

- 14.1 **Labelling for transportation:** N/A
- 14.2 **Substance for identification:** 144-55-8
- 14.3 **ADR / RID;**
- 14.4 **IMDG:**
- 14.5 **ICAO / IATA**

15. REGULATORY INFORMATION

HAZARDS: Not regulated for supply.

SYMBOLS: N/A

RISK PHRASES: N/A

SAFETY PHRASES: N/A

16. ANY OTHER RELEVANT INFORMATION ;

N/A. = none applicable

The information herein is given in good faith and to the best of our knowledge at the current date. The accomplishment of the instructions herein does not exempt the user from following the legal and administrative regulations relative to product, environmental safety and hygiene, which are user's own responsibility. In case of mixture with other substances, ensure that other risks are not generated.

Date of Revision: 21 August 2014 (general revision)



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MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

a) Identification of the substance or preparation :

- 1.1 **Commercial name :** Waterwell Aqua Balance 3(packaged 4kg, 25kg)
1.2 **Chemical name :** Calcium chloride
1.3. **Synonyms :** Calcium(II) chloride, Calcium dichloride, E509
1.4. **Chemical formula :** CaCl₂
1.5. **CAS No :** 10043-52-4
1.6. **EEC No :**

b) Information of Distributor :

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Tel: 011 472 4986
Fax: 011 472 0730

2. COMPOSITION / INFORMATION ON INGREDIENTS

Dangerous ingredient	% w/w	Hazard classification	Risk phrases
Calcium chloride	75 - 97%	HAZARDOUS SUBSTANCE NON-DANGEROUS GOODS	R22 R36

3. DESCRIPTION OF HAZARDS

Irritant. Causes irritation to skin, eyes and respiratory organs. Harmful if inhaled or swallowed.

Health Effects

Inhalation

Granular grade material does not have a significant inhalation hazard. Inhalation of dust may cause irritation to the respiratory organs. Symptoms: coughing and shortness of breath.

Ingestion

Low toxicity chemical. Ingestion causes irritation of the mucous membranes due to heat of hydrolysis. Large amounts can cause gastrointestinal problems, nausea, vomiting and abdominal pain.

Skin Contact

Solid calcium chloride might cause mild skin irritation (dry skin). Aqueous solutions or solid in contact with wet skin might cause severe irritation or burns.

Eye Contact

Causes mechanical abrasion or burns from heat of hydrolysis and chloride irritation.

4. FIRST AID MEASURES

4.1 Contact with the skin :

Immediately remove contaminated clothing under running water.

Flush body with plenty of water for at least 15 minutes.

4.2 Contact with the eyes :

Flush eyes with water for 15 minutes, holding eyelids open while washing.

Seek medical attention.

4.3 Ingestion

Do not induce vomiting. Rinse mouth and administer fresh water if subject is conscious.

Seek medical attention.

4.4 Inhalation

Remove subject to fresh air, blow nose.

Seek medical attention in case of respiratory symptoms.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use appropriate fire extinguisher for surrounding environment.

Specific Hazards : This product is non-combustible.

Hazchem Code : None allocated

6. ACCIDENTAL RELEASE MEASURES

Respirator, dust mask and protective gloves.

PRECAUTIONS;

Restrict access to area.

Prevent dust formation; collect in suitable container for removal.

Prevent washing into sewers, soils or natural waterways.

Provide adequate protective equipment and ventilation.

Notify occupational and environmental authorities.

SMALL SPILLS;

Flush area with flooding amounts of water.

7. HANDLING AND STORAGE

Precautions for Safe Handling; Ensure a high level of personal hygiene is maintained when using this product. That is, always wash hands before eating, drinking, smoking or using the toilet.

Conditions for Safe Storage; Store in a cool dry place, out of direct sunlight. This product is subject to deterioration during storage. Protect against moisture as the presence of water will accelerate this deterioration.

Respiratory Protection: Where sufficient ventilation is not available, avoid breathing dust by wearing an AS 1716 approved particulate filter respirator.

Eye Protection: Safety glasses with side shields or goggles should be worn.

Hand Protection; The use of nitrile rubber gloves is recommended.

Body Protection ; Suitable workwear should be worn to protect clothing.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits: No Exposure Limits Established.

Controls: The control measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. The best protection is to enclose operations and/or provide local exhaust ventilation at the site of chemical release. Have a safety shower/eye wash fountain readily available in the immediate work area.

Personal Protection: If engineering controls and work practices are not effective in controlling this material, then wear suitable personal protection equipment, including chemical safety goggles and face shield, boots, imperious gloves, coveralls and respiratory protection.

Have appropriate equipment available for use in emergencies.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White, odourless fine crystals

Melting Point: 260°C

Boiling Point: 1600°C

Solubility in Water: Soluble

pH Value: approx. 5-8 (50 g/l H₂O, 20°C)

Flammability: This product is non-combustible

Molecular Weight: 147.02

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under ordinary conditions of use and storage. Substance will pick up moisture from the air and go into solution if exposed to air in open containers.

Incompatible Materials: Methyl vinyl ether, water, zinc, bromine trifluoride, mixtures of lime boric acid, barium chloride, and 2-furan percarboxylic acid. Metals will slowly corrode in aqueous calcium chloride solutions. Aluminum (and alloys) and yellow brass will be attacked.

Hazardous Polymerization: Will not occur.

Other Information: This product is strongly hygroscopic, therefore do not leave containers standing open.

11. TOXICOLOGICAL INFORMATION

Toxicology Information: Oral - LD50 (Rat) 1.4 g/kg

Inhalation: Inhalation of dust may result in irritation of the mucous membrane and upper airways. Symptoms may include nausea, headaches, sneezing and possible breathing difficulties.

Ingestion: Harmful if swallowed. May cause irritation to the mouth, esophagus and stomach if swallowed in large quantities.

Skin : May cause mechanical irritation in contact with the skin, which may result in redness and itching.

Eye : Will cause irritation in contact with the eyes, which can result in redness, stinging and lachrymation. Not anticipated to cause permanent eye injury.

Chronic Effects: Prolonged or repeated contact with this material may result in irritation leading to possible contact dermatitis.

12. ECOLOGICAL INFORMATION

Acute ecotoxicity

Toxicity to fish: 13,400 mg/l Exposure time: 48 h Species: *Gambusia affinis* (Mosquito fish)

Toxicity to daphnia and other aquatic invertebrates

calcium chloride : LC50: 759 - 3,005 mg/l Species: *Daphnia magna* (Water flea)

Bioaccumulation

calcium chloride (Aerosol) : This substance is not considered to be persistent, bioaccumulation nor toxic (PBT).

No ecological problems are expected when the product is handled and used with due care.

13. DISPOSAL CONSIDERATIONS

Product that cannot be used for recovery or recycling should be managed by an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. Disposal regulations may differ on country / state / region basis. Dispose of container and unused contents in accordance with local requirements.

14. TRANSPORT INFORMATION

Class : Not regulated

Subsidiary Risks: Hazard Category; Harmful, Irritant

15. REGULATORY INFORMATION

Poisons Schedule: Not Scheduled
Hazard Category; Harmful, Irritant

16. ANY OTHER RELEVANT INFORMATION ;

The information herein is given in good faith and to the best of our knowledge at the current date. The accomplishment of the instructions herein does not exempt the user from following the legal and administrative regulations relative to product, environmental safety and hygiene, which are user's own responsibility. In case of mixture with other substances, ensure that other risks are not generated.

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