

# Aquapac Pty Ltd

ABN 36 114 118 311

Water treatment & Specialty chemicals

## MATERIAL SAFETY DATA SHEET

### Product: Alkaline Solution

#### Company Details

**Supplier:** Aquapac Pty Ltd

**Telephone No.:** 0422 600 701

**Address:** PO Box 1860  
Castle Hill NSW 1765

**Facsimile No.:** (02) 9980 6900

**Email:** williamsay@optusnet.com.au

#### Emergency Telephone No.:

**Business Hours:** 0422 600 701

**After Hours:** 0422 600 701 (mobile), Bill Say, Manager - NSW

### IDENTIFICATION

**U.N. Number:** 1824 **Class:** 8  
**Hazchem:** 2R **Poisons Schedule:** 6  
**EPG:** 37 **Packaging Group:** II  
Classified as hazardous according to criteria of NOHSC

#### Ingredients

Chemical Entity	CAS No.	Proportion
Sodium hydroxide	1310-73-2	10 - 30%
Sodium carbonate	497-19-8	< 5%
Water	7732-18-5	balance

#### Other Names

Caustic soda  
Sodium hydroxide

#### Uses

To neutralise acids in water and waste water treatment. Make sodium salts and hydrolise fats to form soaps. Industrial cleaning applications

#### Physical Description / Properties

<b>Appearance:</b>	Transparent viscous liquid.		
<b>Flash point:</b>	N/A	<b>Specific Gravity:</b>	1.20
<b>Boiling point (°C):</b>	140	<b>ph (neat solution)</b>	> 12
<b>Melting Point (°C):</b>	N/A	<b>Solubility in Water (g/L):</b>	soluble
<b>Vapour pressure:</b>	1.5 mm Hg		

#### Other Properties

**Odour:** characteristic

Doc Title: MSDS Calcium Fluoride  
Version: 2.0 CURRENT  
Authorised by: WS

Doc ID: QA1  
Version Date: 31/7/05  
Page: 1 of 6

# Aquapac Pty Ltd

ABN 36 114 118 311

Water treatment & Specialty chemicals

**Solubility:** Soluble in water

## HEALTH HAZARD INFORMATION

### Health Effects

This material is considered harmful by exposure from all routes. Symptoms that may arise if the product is mishandled are:

### Acute

**Swallowed** Ingested sodium hydroxide is extremely corrosive, causing dissolution of body tissue accompanied by severe burning sensation in mouth and oesophagus. May be fatal if swallowed.

**Eye** Will irritate and possibly damage eye tissue causing conjunctivitis, corneal burns, ulceration and could cause permanent injury and loss of sight.

**Skin** Contact with skin can cause burns or severe irritation. Repeated or prolonged contact may lead to irritant contact dermatitis. Pain may not be associated with contact; thus care is needed to avoid contaminating gloves and boots.

**Inhaled** Inhalation of mists of the solution will result in respiratory irritation and possible harmful corrosive effects including lesions of the nasal septum, pulmonary oedema, pneumonitis and emphysema. Inhalation at elevated temperatures will increase these symptoms.

***As with any chemical - ingestion, inhalation, and prolonged or repeated skin contact should be avoided by good occupational work practice.***

### First Aid

**Swallowed** Immediately rinse mouth thoroughly with water. Give large quantities of water to drink. Do NOT induce vomiting. If vomiting occurs place victim's head lower than hips to prevent vomit from entering lungs and give further water to achieve effective dilution. Seek immediate medical assistance.

**Eye** Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. Transport to medical centre. Continue washing during transport if possible. Seek immediate medical assistance.

**Skin** Immediately wash contaminated skin with plenty of water and then

# Aquapac Pty Ltd

ABN 36 114 118 311

Water treatment & Specialty chemicals

wash with soap and water. Remove contaminated clothing and wash before re-use. If swelling, redness or blistering occurs seek medical advice.

**Inhalation** Remove victim from exposure - avoid becoming a casualty. For all but the most minor symptoms arrange for patient to be seen by a doctor as soon as possible. If breathing is difficult have a trained person administer oxygen. If respiration stops comma, give mouth to mouth resuscitation. Seek medical advice.

**Poison Information Centres** in each State capital city can provide additional assistance.

## Advice to Doctor

Treat symptomatically and as for strong alkali materials, with neutralisation being attempted if necessary.

## PRECAUTIONS FOR USE

## Exposure Standards (for atmospheric contaminants in the occupational environment)

No value assigned for this product by the NOHSC (Workcover). However, the exposure standard for the acid constituent is:

	TWA		STEL	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Sodium hydroxide		2		

8 hr atmospheric TLV = 2mg/m<sup>3</sup> – ceiling value for caustic soda (max instantaneous value).

Peak Limitation: A ceiling value that should not be exceeded over a measurement period that should be as short as possible but not exceed 15 minutes.

This exposure standard is a guide to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. 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.

## Engineering Controls

Design and maintain pipework and storage systems to prevent leaks, and consider possible low temperature solidification effects. Maintain concentration below recommended exposure limit. Use in a well-ventilated area. Avoid generating and

# Aquapac Pty Ltd

ABN 36 114 118 311

Water treatment & Specialty chemicals

inhaling mists and aerosols. Keep containers closed when not in use. If risk of overexposure exists, wear SAA approved respirator to comply with Australian Standards, ensuring correct fit to obtain adequate protection.

## Personal Protection

**Eyes:** The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate.

**Skin:** Rubber or PVC gloves, overalls or PVC suit, safety or rubber boots

**Respiratory:** If mist is generated the use of approved AS 1715/1716 half facepiece respirator is recommended.

Avoid contact with eyes and skin. Avoid prolonged or repeated exposure. Always wash hands before smoking, eating, drinking or using the toilet.

## Flammability

Not combustible material. Direct contact with water can cause a violent exothermic reaction. Use foam, carbon dioxide or dry chemical where the product is stored.

## SAFE HANDLING INFORMATION

## Storage and Transport

Classified as a Dangerous Good for the purposes of transport.

Correct shipping name: Caustic Soda Liquid

Packaging Group 11

UN Number 1824

Class 8 (Corrosive)

Refer to relevant regulations for storage and transport requirements.

Not to be loaded with:

Class 1 explosives

Class 4.3 dangerous when wet substances

Class 5.1 Oxidising agents

Food stuffs

Incompatible Class 8 chemicals (Strong acids)

Store according to relevant Poisons Storage Act (Schedule Poison S6)

---

Doc Title: MSDS Calcium Fluoride  
Version: 2.0 CURRENT  
Authorised by: WS

Doc ID: QA1  
Version Date: 31/7/05  
Page: 4 of 6

# Aquapac Pty Ltd

ABN 36 114 118 311

Water treatment & Specialty chemicals

Group Text Emergency Procedure Guide (GTEPG) card from AS2931  
GTEPG : 8A1

Dangerous Goods – Initial Emergency Response Guide (SSA/SNZ HB76:1997)

Do not store in materials of tin, aluminium, galvanised, zinc or alloys of these materials. Store away from acids and ammonium salts.

## Spills

Clear area of all unprotected personnel. Wear protective equipment to prevent skin and eye contamination including breathing apparatus.

Contain do not allow spill material to enter the environment. Contain material using inert absorbent material eg vermiculite. Place into suitable labelled containers and hold for waste disposal. Wash area down with excess water once removed.

CAUTION: Caustic Soda may react violently with water and acids.

## Disposal

Refer to State and Land Management Authority and relevant Environmental Protection Authority.

## Fire / Explosion Hazards

Not Combustible

Conditions to avoid:

Reaction with metals will produce flammable hydrogen gas.

Materials to avoid:

Acids. Water and ammonium salts

Hazardous Decomposition Products:

May produce hydrogen gas in contact with metal

Extinguishing Media:

Fire fighters should wear full protective clothing including self-contained breathing apparatus. In case of fire use water, foam, carbon dioxide, dry powder.

## OTHER INFORMATION

## Toxicity

Doc Title:	MSDS Calcium Fluoride	Doc ID:	QA1
Version:	2.0 CURRENT	Version Date:	31/7/05
Authorised by:	WS	Page:	5 of 6

# Aquapac Pty Ltd

ABN 36 114 118 311

Water treatment & Specialty chemicals

## Toxicology:

Oral lowest lethal dose (rabbit): 500mg/Kg 10% solution  
Skin (rabbit): 500mg/24hr severe irritation  
Eye (rabbit); 1 mg/30 sec severe irritation

Highly corrosive to any tissue in which it comes into contact. Produces burns, deep ulceration, and gelatinous necrotic areas at the site of contact. Low systemic toxicity.

## Risk Statement:

R35 causes severe burns  
R41 Risk of serious damage to eyes.

## Safety Statement:

S2 Keep out of reach of children  
S26 In case of contact with eyes, rinse immediately with plenty of water and Seek medical advice.  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

## Hazard Category: C

Corrosive

## Company Disclaimer

All information contained in this data sheet is as accurate and up-to-date as possible. Since Aquapac Pty Ltd cannot anticipate or control the conditions under which this information may be used, each user should review the information in the specific context of the intended application.

Aquapac Pty Ltd will not be responsible for damages of any nature resulting from the use or reliance upon the information. No expressed or implied warranties are given other than those implied mandatorily by Commonwealth, State or Territory legislation.