

Aquapac Pty Ltd

ABN 36 114 118 311

Water treatment & Specialty chemicals

MATERIAL SAFETY DATA SHEET

Product: Caustic Soda Solution

Company Details

Supplier: Aquapac Pty Ltd
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Prestons NSW 2170

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Emergency Telephone No.:

Business Hours: 02 9826 0201

After Hours: 000 Fire or Police

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 - 50%
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

Appearance:	Transparent viscous liquid.		
Flash point:	N/A	Specific Gravity:	1.50
Boiling point (°C):	140	ph (neat solution)	> 12
Melting Point (°C):	N/A	Solubility in Water (g/L):	soluble
Vapour pressure:	1.5 mm Hg		

Other Properties

Odour: characteristic
Solubility: Soluble in water

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Version: 2.0 CURRENT
Authorised by: WS

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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 wash with soap and water. Remove contaminated clothing and wash

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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 ³	ppm	mg/m ³
Sodium hydroxide		2		

8 hr atmospheric TLV = 2mg/m³ – 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 inhaling mists and aerosols. Keep containers closed when not in use. If risk of

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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)

Group Text Emergency Procedure Guide (GTEPG) card from AS2931

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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

Toxicology:

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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.

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