PRICE CHEMICALS PTY LIMITED

ABN 92 002 585 293

10 Pile Road
Somersby NSW 2250
Phone: (02) 4340 0088
Fax: (02) 4340 0322
E-mail: enquiries@pricechemicals.com.au

MATERIAL SAFETY DATA SHEET

Hazardous according to criteria of Worksafe Australia

Date of Issue : 1st January 2005

1. IDENTIFICATION

General

Product Name : SODIUM HYDROXIDE SOLUTION

Other Names : CAUSTIC SODA; SODIUM HYDROXIDE; SODA LYE SODIUM HYDRATE; WHITE CAUSTIC

UN No. : 1824

Dangerous Goods Class : 8

Subsidiary Risk : None Allocated

Hazchem Code : 2R

Pack Group : II

EPG : 37

Poisons Schedule : 6

Uses :

Use to neutralise acids, make sodium salts and to hydrolise fats to form soaps. To treat cellulose in making viscose rayon and cellophane. To precipitate alkaloids and most metals from water solutions of their salts. Gold mining a pH adjuster. Industrial cleaning applications in sugar industry.

1.1 Physical Description / Properties

Appearance : Transparent viscous liquid, odourless.

Formula : NaOH

Boiling Point : 140 deg C

Melting Point : N/A deg C

Vapour Pressure : 1.5 mm Hg (1 atmosphere)

Specific Gravity : 1.53 (water = 1)

Flash Point : N/A

pH : 14 ()

Solubility in water : Sol. g/l (25 deg C)

Flammability Limits (as percentage volume in air)

Lower Explosion Limit : N/A

Upper Explosion Limit : N/A

1.2 Other Properties

Solutions of greater than 45% are viscous and very slippery.

1.3 Ingredients

Chemical Entity	CAS No.	Proportions (%)
SODIUM HYDROXIDE	[1310-73-2]	VAIRES
WATER	[7732-18-5]	VARIES

---

2. HEALTH HAZARD INFORMATION

2.1 Health Effects - Acute

Swallowed

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

Eye

Extremely corrosive to the ocular tissue. May cause severe damage including deep and painful destruction of tissue.

Skin

Causes irritation, redness and burns on contact with skin.

Inhaled

Inhalation of mist causes irritation and breathing difficulties.

2.2 Health Effects - Chronic

Chronic effects can include premanent damage to upper respiratory tract and lung tissue. Continuous skin contact with traces of caustic can lead to drying of skin and dermatitis.

2.3 First Aid

Swallowed

If conscious, immediately give victim large quantities of milk or water. Never give anything by mouth to an unconscious or convulsing person. Seek medical attention immediately.

Eye

Flush thoroughly with cold running water, including under eyelids for at least 20 minutes. Seek medical attention immediately.

Skin

Avoid contact with this chemical. If spilt on skin, remove contaminated clothing and shower with soap and water for at least 20 minutes.

Inhaled

Remove victim to fresh air. Restore breathing and administer oxygen if required Keep victim warm, quiet and in a reclining position. Seek urgent medical attention.

First Aid Facilities

Safety showers and eye wash facilities should be made available wherever this chemical is in regular use.

2.5 Advice to Doctor

Alkali burns, particularly to the eyes can result in severe and sometimes permanent damage. Treat inhalation cases for suspected pulmonary oedema.

2.6 Toxicity Data

Oral (rat) LDLo: 500 mg/kg. Intraperitoneal (mouse) LD50: 40 mg/kg. Cytogenic analysis gerbil parental: 20uL.

3. PRECAUTIONS FOR USE

3.1 Exposure Standards

OSHA PEL, ACGIH TLV: 2.0 mg/m3/8hr.

3.2 Engineering Controls

Ensure adequate ventilation to keep airbourne concentrations below exposure standard.

3.3 Personal Protection

Respirator - where mist is a problem, use canister type respirator suitable for particulates and alkaline gases. Gloves - use nitrile rubber gloves where skin contact is possible. Eye protection - useful face visor to prevent eye and face contact. Clothing - use rubber gloves, boots, and aprob to prevent skin contact. Launder frequently. Change clothing if required. Wash hands and face thoroughly after handling and before work breaks, eating, drinking, smoking and using toilet facilities.

3.4 Flammability

Non flammable, but may react with aluminium, tin and zinc to produce flammable hydrogen gas (possible explosion hazard).

SAFE HANDLING INFORMATION

4.1 Storage / Transport

Store in properly designed and marked storage tanks. Store away from incompatible materials such as aluminium, zinc, tin, magnesium and alloys of these metals. Also incompatible with acids, chlorinated compounds, brominated compounds and nitrated hydrocarbons. Post warning signs when appropriate. Keep storage areas secure and segregated from populated work areas. Take necessary maintenance precautions to avoid leaks.

4.2 Packaging / Labelling

UN No. 1824

Class 8

Sub Risk None Allocated

Hazchem Code 2R

Pack Group II

EPG No. 37

Shipping Name SODIUM HYDROXIDE SOLUTION

Hazard CORROSIVE

Risk Phrases

R35 Causes severe burns.

R41 Risk of serious damage to eyes.

Safety Phrases

S1/2 Keep locked up and out of the reach of children.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37/39 Wear suitable gloves and eye/face protection.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).

4.3 Spills and Disposal

Spills

Clean up personnel should wear full protective clothing including respiratory protection. Restrict access to area until completion of cleanup. Stop leak if safe to do so. Contain spill with absorbent material, such as sand or kitty litter. Prevent material from entering sewers of waterways.

For small spills - soak up the spill with absorbent material which does not react with the spilled chemical (eg. sawdust). For small spills only, wash away with copious amounts of cold water. For large spills - contact fire and emergency services. Notify government occupational health and environmental authoritues.

Disposal

Dispose according to all local, state and federal regulations.

4.4 FIRE AND EXPLOSION HAZARD

Fire / Explosion

Sodium hydroxide solution does not burn, but may generate flammable hydrogen gas if in contact with zinc, tin, magnesium or aluminium.

Extinguishing Media

Firefighters must wear full protective clothing including self contained breathing apparatus. Use extinguishing media suitable to usrrounding fire conditions. Remove from the vicinity containers not involved in the fire.

5 OTHER INFORMATION

Other Information

Sea water may be used as a decontaminant for soil which have been heavily contaminated with caustic soda. The magnesium present in sea water is eventually precipitated as magnesium carbonate. Any such decontamination should be carried out under controlled conditions, with reference to government environmental authorities, and with due regard to the marine environment.

5.1 Contact Points

Organisation	Location	Telephone	Ask For
Price Chemicals Pty Ltd	Somersby 2250	02-4340 0088	Technical Officer
Poisons Information Centre	Westmead	131129	
		1800-251525	