

MATERIAL SAFETY DATA SHEET

Sodium Hydroxide Solution

Page 1 of 3
Date of Issue: July 2003

STATEMENT OF HAZARDOUS NATURE

Hazardous according to criteria of Worksafe Australia

COMPANY DETAILS

Company: ProSciTech
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IDENTIFICATION SECTION

Product Name	Sodium Hydroxide Solution
Other Names	
Product Code	C201
U.N. Number	UN1824
Dangerous Goods Class and Subsidiary Risk	8
Hazchem Code	None allocated
Poison Schedule	None allocated
Use	Adjusting pH

Physical Description and Properties

Appearance	Clear to slightly grey liquid with no odour
Boiling Point/Melting Point	B.P. 103°C M.P. 12.8°C
Vapour Pressure	No data
Specific Gravity	1.1395 @ 15.6°C
Flash Point	Not combustible
Flammability Limits	Not determined
Solubility in water	100%

Other Properties

Ingredients

Chemical Name	CAS Number	Proportion
Sodium hydroxide	1310-73-2	8%

Sodium Hydroxide Solution

HEALTH HAZARD INFORMATION

Health Effects:

Acute

Swallowed:

Swallowing sodium hydroxide may cause severe burns of the mouth, throat, esophagus and stomach. Death may result. Severe scarring of the throat may occur on recovery after swallowing sodium hydroxide. An increased number of esophageal cancer cases have been reported to occur in individuals who have scarring of the esophagus from swallowing sodium hydroxide.

Eye:

Sodium hydroxide is destructive to eye tissues on contact. Will cause severe burns that result in damage to the eyes and even blindness. Contact lenses should not be worn when working with this chemical.

Skin:

Contact of the skin may cause skin irritation and, with greater exposure, severe burns with scarring.

Inhaled:

Effects from inhalation of the dusts, mists or spray will vary from mild irritation to destructive burns depending on the severity of exposure. Severe pneumonitis may occur.

Chronic:

The chronic local effect may consist of multiple areas of superficial destruction of the skin or primary irritant dermatitis. Similarly, inhalation of dust, spray or mist may result in varying degrees of irritation or damage to the respiratory tract tissues and increased susceptibility to respiratory illness.

First Aid:

Swallowed:

DO NOT induce vomiting. Have conscious person drink several glasses of water or milk. Seek immediate medical attention. **Serious ingestion:** DO NOT induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Eye:

Check for and remove any contact lenses. IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Rinse with a dilute solution of boric acid. Finish by rinsing thoroughly with running water to avoid a possible infection. COLD water may be used.

Skin:

If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical touches the victim's exposed skin such as the hands, neutralise exposed skin with a dilute solution of boric acid or acetic acid. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. COLD water may be used. If irritation persists, seek medical attention. Wash contaminated clothing before reusing. **Serious skin contact:** Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Inhaled:

Allow the victim to rest in a well-ventilated area. Seek immediate medical attention. **Serious inhalation:** Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

First Aid Facilities:

Eye bath, safety shower

PRECAUTIONS FOR USE

Exposure Standards:

2 mg/m³

Engineering

Provide local exhaust

Controls:

Personal Protection:

Employees should be provided with and required to use impervious clothing, gloves, face shield (200mm minimum) and other appropriate protective clothing necessary to prevent any possibility of skin contact with solutions of sodium hydroxide. Materials suggested for use are natural rubber, neoprene or vinyl. Employees should be provided with and required to use dust- and splash-proof safety goggles where there is any possibility of sodium hydroxide contacting the eyes.

Flammability:

Not flammable under conditions of use.

Sodium Hydroxide Solution

SAFE HANDLING INFORMATION

Storage and Transport:	Alkalis may be stored in heavy-duty gauge steel containers. Corrosive materials should be stored in a separate safety storage cabinet or room.
Spills and Disposal:	SMALL SPILL: Dilute with water and mop up, or absorb with an inert DRY material and place in an appropriate waste disposal container. If necessary: neutralise the residue with a dilute solution of acetic acid. LARGE SPILL: Corrosive liquid. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. DON NOT get water inside container. DO NOT touch spilled material. Use water spray curtain to divert vapour drift. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralise the residue with a dilute solution of acetic acid.
Fire/Explosion Hazard:	This product is not combustible. Water spray, foam, carbon dioxide or dry chemicals may be used where this product is stored.

OTHER INFORMATION

Incompatibilities (Materials to avoid)	Contact with water, acids, flammable liquids and organic halogen compounds, especially trichloroethylene, may cause fires and explosions. Contact with metals such as aluminium, tin, zinc and alloys containing these metals causes formation of flammable hydrogen gas. Contact with nitromethane and other similar nitro compounds causes formation of shock-sensitive salts.
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