The Home Scientist, L3C

Material Safety Data Sheet

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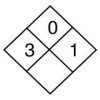
MSDS #: CS06
Effective Date: May 15, 2011

SECTION I NAME

Product:	Sodium Hydroxide, 6.0 M solution (6.0 N)
Chemical Synonyms:	Sodium Hydroxide, water solution
Formula:	Mixture. See Section II.
Unit Size:	up to 1.000 liter
CAS #:	Mixture. See Section II.

24 HOUR EMERGENCY ASSISTANCE

NFPA



CHEMTREC

(800) 424-9300

HMIS*

- **Health: 3**
- **Fire: 0**
- **Reactivity: 1**

Hazard Rating

Minimal 0	Slight 1	Moderate 2	Serious 3	Severe 4

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	Percentage	Hazardous?	TLV Units
Sodium hydroxide, NaOH (CAS #: 1310-73-2)	24%	Yes	TWA: C 2 mg/m^3
Water, H_2O (CAS #: 7732-18-5)	76%	No	None established

DANGER! CORROSIVE!
HARMFUL IF SWALLOWED. CAUSES BURNS TO SKIN AND EYES. DO NOT INHALE AS DUST OR MIST.

SECTION III PHYSICAL DATA

Melting Point (°F):	approximately 0 °C (32 °F)	Specific Gravity (H_2O = 1):	approximately 1.1
Boiling point (°F):	approximately 100 °C (212 °F)	Percent Volatile by Volume (%):	76%
Vapor Pressure (mm of Hg):	14 mm (water)	Evaporation Rate (Water = 1):	less than 1.0
Vapor Density (Air = 1):	0.7 (water)		
Solubility in Water:	Complete		
Appearance & Odor:	Clear, colorless, odorless liquid.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-flammable	Flammable Limits in Air % by Volume N/A	Lower	Upper
			N/A	N/A
Extinguisher Media	Use water spray on fire involving this material.			

SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing. Must include complete eye protection. Flood with water, using care not to splatter or splash this material.

(2004 EMERGENCY RESPONSE GUIDEBOOK, RSPA P 5800.9, GUIDE PAGE NO. 154)

UNUSUAL FIRE AND EXPLOSION HAZARDS

In fire conditions, water may evaporate from this solution, which may cause hazardous decomposition products to be produced as dust or fume. Contact with most metals can generate hydrogen gas. A severe eye hazard; solid or concentrated solution destroys tissue on contact.

D.O.T.	**Sodium hydroxide solution, 8, UN1824, PG II, Ltd Qty ≤ 1 Lt.**

SECTION V HEALTH HAZARD DATA CS06

THRESHHOLD LIMITED VALUE	None established for this solution. (ACGIH 2001).
EFFECTS OF OVEREXPOSURE	**INGESTION**: Severe burns and complete tissue perforation of mucous membranes of the mouth, throat, and stomach. **SKIN AND EYES**: Contact with skin or eyes may cause severe irritation or burns. **INHALATION**: Exposure can produce burns of the respiratory tract. Severe exposure could result in chemical pneumonia. Target organs: respiratory and gastrointestinal tracts, eyes, skin.
EMERGENCY AND FIRST AID PROCEDURES	**INGESTION**: Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person. **EYES**: Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **SKIN**: Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention. **INHALATION**: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION VI REACTIVITY DATA

Stability	**Unstable**		**Conditions to Avoid**	Can absorb carbon dioxide from air and react to form sodium carbonate.
	Stable	X		
Incompatibility (Materials to Avoid)	Metals, acids, organic halogen compounds, organic nitro compounds.			
Hazardous Decomposition Products	Sodium oxide. Decomposition by reaction with certain metals releases flammable and explosive hydrogen gas.			

Hazardous Polymerization			
May Occur	**Will Not Occur**	**Conditions to Avoid**	Not applicable.
	X		

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled	Wearing protective clothing, absorb spill with an inert dry material, sweep up, and place in a suitable container for proper disposal. Wash spill area with soap and water.
Waste Disposal Method	Discharge, treatment, or disposal may be subject to Federal, State, or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only. Dispose of in accordance with all federal, state, and local regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)	None needed in normal laboratory handling. If misty conditions prevail, use a high efficiency particulate respirator.			
Ventilation	**Local Exhaust**	Recommended	**Special**	No
	Mechanical (General)	Recommended	**Other**	No
Protective Gloves	Rubber	**Eye Protection**	Chemical safety goggles, with face shield where appropriate	
Other Protective Equipment	Goggles, lab coat, apron, eye wash station, proper gloves, ventilation hood			

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing	Keep container tightly closed when not in use. Store in a cool, dry place. Product can react violently with acids and other substances. Avoid contact with skin, eyes, and clothing. Do not take internally. Avoid inhalation of vapor or spray. Wash thoroughly after handling.
Other Precautions	Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food, cosmetic, or household use. Keep out of reach of children. Sodium hydroxide and trichloroethylene are especially hazardous because they react to form spontaneously flammable dichloroacetylene. Avoid contact with skin, eyes, and mucous membranes. Remove and wash contaminated clothing before re-use.

Revision #: 1	Date: May 15, 2011	Approved: Robert Bruce Thompson	Chemical Safety Coordinator: RBT