



SODIUM HYDROXIDE SOLUTION 20-50% MATERIAL SAFETY DATA SHEET

Section 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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Section 2. IDENTIFICATION

PRODUCT NAME:	Sodium Hydroxide	REVISION DATE: None			
CHEMICAL NAME:	Sodium Hydroxide	FORMULA: NaOH			
SYNONYMS:	Caustic soda solution; lye solution; sodium hydroxide liquid	PACKING GROUP: II			
D.O.T. HAZARD CLASS:	Corrosive, 8	UN NO.	1824	CAS NO.	1310-73-2
D.O.T. SHIPPING NAME:	Sodium hydroxide solution				
	RQ, Sodium hydroxide solutions for packaging that contains >2000 pounds.				

Section 3. PHYSICAL DATA

PHYSICAL STATE: Clear and odorless solution.	SPECIFIC GRAVITY AT 60°F: 1.11-1.53	pH: 14.0
BOILING POINT AT 760mm Hg, °F: 230-291 (110-144° C)	SOLUBILITY IN WATER: Soluble	
FREEZING POINT AT 12.5%, °F: -26-59	VOLATILES VOLUME %: Not established.	
VAPOR PRESSURE mmHg @140°F: 13-135	EVAPORATION RATE: Not established.	

Section 4. HAZARDOUS COMPONENTS GREATER THAN 1%

MATERIAL	OSHA PEL	ACGIH TLV	CAS.NO.	%
Sodium Hydroxide	2 mg/m ³ Ceiling	2 mg/m ³ Ceiling	1310-73-2	20-50
CARCINOGENICITY:	Not considered carcinogenic by IARC, NTP or OSHA.			

Section 5. FIRE AND EXPLOSIVE HAZARD DATA

FLASH POINT:	Not Applicable.
NORMAL EXTINGUISHING AGENT:	Use agent, which is appropriate for surrounding fire.
SPECIAL FIRE FIGHTING PROCEDURES:	Keep this product of water sources and sewers. Avoid direct contact of sodium hydroxide with water; this can produce a violent exothermic reaction.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Sodium hydroxide will react with metals such as aluminum, tin, and zinc to generate flammable and explosive hydrogen gas.

Section 6. REACTIVITY DATA

STABILITY:	Stable below 10%.	CONDITIONS TO AVOID:	Contamination
INCOMPATIBILITY (materials to avoid):	Contamination with heavy metals, reducing agents, organics, ether, ammonia and acids.		
HAZARDOUS COMBUSTION / DECOMPOSITION PRODUCTS:	Hypochlorous acid, chlorine and hydrochloric acid. Combustion depends upon temperature and decrease in pH.		



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Section 7. HEALTH HAZARD DATA

ACUTE EFFECTS OF EXPOSURE	
INGESTION:	Contact will cause severe burns of the mouth, throat and stomach.
SKIN CONTACT:	Can cause severe skin burns. Irritation may not be immediately painful. Greater exposure results in severe burns with scarring.
INHALATION:	Causes respiratory irritation, which may develop into serious lung injury depending upon the degree of exposure.
EYE CONTACT:	Can cause severe eye burns. Contact results in immediate pain and can cause permanent eye damage including blindness.
CHRONIC EFFECTS OF EXPOSURE:	No specific information.
OTHER HEALTH DATA:	No specific information.

EMERGENCY AND FIRST AID PROCEDURES	
INGESTION:	If swallowed, DO NOT INDUCE VOMITING! Give large quantities of water or milk. Never give anything by mouth to an unconscious person. Get medical help immediately.
EYES:	Immediately flush eyes (holding eyelids apart) with plenty of water for at least 30 minutes and get medical attention immediately.
INHALATION:	Remove to fresh air. Give artificial respiration only if breathing has stopped. Administer oxygen until victim breathes easily. Keep warm and at rest. Get immediate medical attention.
SKIN:	Flush exposed area with water for at least 15 minutes. Under running water, remove contaminated clothing and shoes. If irritation persists, repeat flushing. Get immediate medical attention. Completely decontaminate clothing before re-use and destroy contaminated shoes.

Section 8. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:	Dike the area to prevent material from entering waterway and dilute with water if possible. Dilute acid, preferably acetic acid, may be used to neutralize traces of sodium hydroxide after flushing.
WASTE DISPOSAL METHOD:	Disposal of all materials shall be in full and strict compliance with all federal, state, and local regulations.

Section 9. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:	Approved NIOSH/MSHA respirator.		
PROTECTIVE GLOVES:	Natural rubber or Neoprene	EYE PROTECTION:	Chemical safety goggles.
VENTILATION:	Well-ventilated area.	SPECIAL EQUIPMENT:	Rubber apron, rubber boots, eyewash fountain, safety shower.

Section 10. SPECIAL PRECAUTIONS

HANDLING AND STORAGE:	Store in cool, dry, ventilated area. Store away from acids, metals, explosives, organic compounds and flammable material. Do not store in containers made from tin, aluminum, zinc and alloys containing these metals. Protect container from physical damage.
OTHER:	None known.



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