



Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name	Sodium Hydroxide 0.1000N	Product Code	VW3219
Manufacturer	EMD Chemicals Inc. P.O. Box 70 480 Democrat Road Gibbstown, NJ 08027 Prior to January 1, 2003 EMD Chemicals Inc. was EM Industries, Inc. or EM Science, Division of EM Industries, Inc.	Effective Date	11/12/2003
		Print Date	5/3/2004

For More Information Call

856-423-6300 Technical Service
Monday-Friday: 8:00 AM - 5:00 PM

In Case of Emergency Call

800-424-9300 CHEMTREC (USA)
613-996-6666 CANUTEC (Canada)
24 Hours/Day: 7 Days/Week

Synonym Sode Lye

Material Uses Laboratory Reagent

Chemical Family Caustic Solution

Section 2. Composition and Information on Ingredients

Component	CAS #	% by Weight
Sodium Hydroxide	1310-73-2	<1
Water	7732-18-5	99.6

Section 3. Hazards Identification

Physical State and Appearance Liquid.

Emergency Overview CAUTION !
CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
MAY BE HARMFUL IF SWALLOWED.

Routes of Entry Dermal contact. Eye contact. Inhalation. Ingestion.

Potential Acute Health Effects

Eyes Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.

Skin Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Inhalation Hazardous in case of inhalation (lung irritant).

Ingestion May be hazardous in case of ingestion.

Potential Chronic Health Effects

Carcinogenic Effects This material is not known to cause cancer in animals or humans.

Additional information See Toxicological Information (section 11)

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Medical Conditions Aggravated by Overexposure:	Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.
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Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
Skin Contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 5. Fire Fighting Measures

Flammability of the Product	Non-flammable.
Auto-ignition Temperature	Not applicable.
Flash Points	Not applicable.
Flammable Limits	Not applicable.
Products of Combustion	Not applicable.
Fire Hazards in Presence of Various Substances	Not applicable.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of static discharge: No. Risks of explosion of the product in presence of mechanical impact: No.
Fire Fighting Media and Instructions	Use extinguishing media suitable for surrounding materials.
Protective Clothing (Fire)	Wear suitable protective clothing.
Special Remarks on Fire Hazards	Not available.
Special Remarks on Explosion Hazards	Can react with certain metals to release explosive hydrogen gas.

+ Section 6. Accidental Release Measures

Small Spill and Leak	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
Large Spill and Leak	Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.
Spill Kit Information	The following EMD Chemicals Inc. SpillSolv (TM) absorbent is recommended for this product: SX1320 Caustic Treatment Kit

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Section 7. Handling and Storage

Handling	Do not ingest. Do not breathe vapor or mist. Use only with adequate ventilation. Wash thoroughly after handling.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.
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Personal Protection

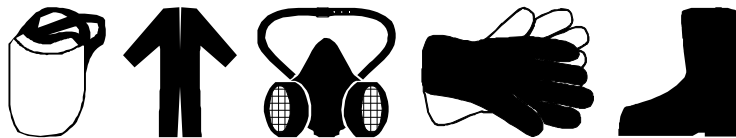
Eyes Face shield.

Body Full suit.

Respiratory Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

Hands Gloves.

Feet Boots.

Protective Clothing (Pictograms)**Personal Protection in Case of a Large Spill**

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name

Sodium Hydroxide

Exposure Limits**ACGIH (United States).**CEIL: 2 mg/m³**OSHA (United States).**CEIL: 2 mg/m³**AUVA (Austria, 1995).**Spitzenbegrenzung: 4 mg/m³ 8 times per shift, 5 minute(s).TWA: 2 mg/m³ 8 hour(s).**Belgium Minister of Labour (Belgium, 1998).**CEIL: 2 mg/m³VL: 2 mg/m³ 8 hour(s).**BAUA (Germany, 1997).**Spitzenbegrenzung: 2 mg/m³TWA: 2 mg/m³ 8 hour(s).**DK-Arbejdstylsinet (Denmark, 1996).**Loftværdi: 2 mg/m³GV: 2 mg/m³ 8 hour(s).**Tyterveyslaitos (Finland, 1998).**TWA: 2 mg/m³ 8 hour(s).**INRS (France, 1996).**VME: 2 mg/m³ 8 hour(s).**National Authority for Occupational Safety/Health (Ireland, 1999).**STEL: 2 mg/m³ 15 minute(s).**Arbeidsinspectie (Netherlands, 1999).**MAC-C: 2 mg/m³TGG 8 uur: 2 mg/m³ 8 hour(s).**N-Arbejdstylsinet (Norway, 1996).**AN: 2 mg/m³ 8 hour(s).**AFS (Sweden, 1996).**KTV: 2 mg/m³ 15 minute(s).**EH40-OES (United Kingdom (UK), 1997).**

STEL: 2 mg/m³ 15 minute(s).
NIOSH REL (United States, 1994).
 CEIL: 2 mg/m³
OSHA Final Rule (United States, 1989).
 CEIL: 2 mg/m³
 Not available.

Water

Section 9. Physical and Chemical Properties

Odor	Odorless.
Color	Clear. Colorless
Physical State and Appearance	Liquid.
Molecular Weight	Not applicable.
Molecular Formula	Not applicable.
pH	Not available.
Boiling/Condensation Point	The lowest known value is 99.9°C (211.8°F) (Water).
Melting/Freezing Point	May start to solidify at -0.1°C (31.8°F) based on data for: Water.
Specific Gravity	Not available.
Vapor Pressure	Not available.
Vapor Density	Not available.
Odor Threshold	Not available.
Evaporation Rate	0.36 (Water) compared to(n-Butyl Acetate =1)
LogK_{ow}	Not available.
Solubility	Soluble in water.

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions of Instability	Not available.
Incompatibility with Various Substances	Reactive with metals, acids.
Rem/Incompatibility	Incompatalbe with organic halogens, nitro and chloro organic compunds, peroxide , Aluminum , Tin , Zinc , strong acids
Hazardous Decomposition Products	Na2O
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

RTECS Number:	Sodium Hydroxide Water	WB4900000 ZC0110000
Toxicity	LD ₅₀ : Not available. LC ₅₀ : Not available.	
Chronic Effects on Humans	Not available.	

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Acute Effects on Humans Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching. Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Hazardous in case of inhalation (lung irritant). May be hazardous in case of ingestion.

Special Remarks on Other Toxic Effects on Humans MAY BE IRRITATING ON CONTACT WITH MUCOUS MEMBRANES.

Synergetic Products (Toxicologically) Not available.

Irritancy Draize Test: Not available.

Sensitization Slightly hazardous in case of inhalation (lung sensitizer).

Carcinogenic Effects This material is not known to cause cancer in animals or humans.

Toxicity to Reproductive System Not available.

Teratogenic Effects Not available.

Mutagenic Effects Not available.

Section 12. Ecological Information

Ecotoxicity Not available.

BOD5 and COD Not available.

Toxicity of the Products of Biodegradation The products of degradation are less toxic than the product itself.

Section 13. Disposal Considerations

EPA Waste Number D002

Treatment Specified technology- Neutralize to pH 6-9. Contact your local permitted waste disposal site (TSD) for permissible treatments sites.
ALWAYS CONTACT PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.

Section 14. Transport Information

DOT Classification Not available.

TDG Classification Not available.

IMO/IMDG Classification Not available.

ICAO/IATA Classification Not available.

Section 15. Regulatory Information

U.S. Federal Regulations TSCA 8(b) inventory: Sodium Hydroxide; Water
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Sodium Hydroxide
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Sodium Hydroxide: Immediate (Acute) Health Hazard
SARA 313 toxic chemical notification and release reporting: No products were found.
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: Sodium Hydroxide

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Clean air act (CAA) 112 accidental release prevention: No products were found.
 Clean air act (CAA) 112 regulated flammable substances: No products were found.
 Clean air act (CAA) 112 regulated toxic substances: No products were found.

WHMIS (Canada)

Class D-2A: Material causing other toxic effects (VERY TOXIC).
 Class D-2B: Material causing other toxic effects (TOXIC).

CEPA DSL: Sodium Hydroxide; Water

This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all required information.

International Regulations**EINECS**

Sodium Hydroxide 215-185-5
 Water 231-791-2

DSCL (EEC)

This product is not classified according to the EU regulations.

International Lists

Australia (NICNAS): Sodium Hydroxide; Water

Japan (MITI): Sodium Hydroxide; Water

Korea (TCCL): Sodium Hydroxide; Water

Philippines (RA6969): Sodium Hydroxide; Water

China: No products were found.

State Regulations

Pennsylvania RTK: Sodium Hydroxide: (environmental hazard, generic environmental hazard)

Massachusetts RTK: Sodium Hydroxide

New Jersey: Sodium Hydroxide 0.1000N

California prop. 65: No products were found.

Section 16. Other Information

**National Fire
 Protection
 Association
 (U.S.A.)**



**Changed Since Last
 Revision**

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Notice to Reader

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