

Sodium Hydroxide 1.000N

Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name Sodium Hydroxide 1.000N

Product Code VW3222

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.

For More Information Call

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

Effective Date 3/4/2003

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	4
Water	7732-18-5	96

Section 3. Hazards Identification

Physical State and Appearance Liquid.

Emergency Overview DANGER ! POISON !
CAUSES EYE AND SKIN BURNS.
HARMFUL IF SWALLOWED.

Routes of Entry Inhalation. Ingestion.

Potential Acute Health Effects

Eyes Hazardous in case of eye contact (corrosive). Causes eye burns.
Skin Hazardous in case of skin contact (corrosive). Skin contact produces burns.

Inhalation No known acute effects of this product resulting from inhalation.
Ingestion 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)

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. Repeated exposure to a highly toxic

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material may produce general deterioration of health by an accumulation in one or many human organs.

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 If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Section 5. Fire Fighting Measures

Flammability of the Product Non-flammable.

Auto-ignition Not applicable.

Temperature 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 Not applicable.

Protective Clothing (Fire) Wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear.

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. Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain. Do not get water inside container. Do not

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touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. 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 EM SCIENCE SpillSolv (TM) absorbent is recommended for this product:
SX1320 Caustic Treatment Kit

Section 7. Handling and Storage

Handling Do not ingest. Do not breathe vapor or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Storage 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.

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

AUA (Austria, 1995).

Spitzenbegrenzung: 4 mg/m³ 8 times per shift, Period: 5

minute(s).

TWA: 2 mg/m³

Belgium Minister of Labour (Belgium, 1998).

CEIL: 2 mg/m³

VL: 2 mg/m³

BAUA (Germany, 1997).

Spitzenbegrenzung: 2 mg/m³

MAK: 2 mg/m³

DK-Arbejdstilsynet (Denmark, 1996).

Loftværdi: 2 mg/m³

GV: 2 mg/m³

Tyterveyslaitos (Finland, 1998).

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TWA: 2 mg/m³

INRS (France, 1996).

VME: 2 mg/m³

National Authority for Occupational Safety/Health (Ireland, 1999).

STEL: 2 mg/m³

Arbeidsinspectie (Netherlands, 1999).

MAC-C: 2 mg/m³

TGG 8 uur: 2 mg/m³

N-Arbejdstilsynet (Norway, 1996).

AN: 2 mg/m³

AFS (Sweden, 1996).

KTV: 2 mg/m³

EH40-OES (United Kingdom (UK), 1997).

STEL: 2 mg/m³

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 The only known value is 2.13 (Water = 1) (SODIUM HYDROXIDE).

Vapor Pressure Not available.

Vapor Density Not available.

Odor Threshold Not available.

Evaporation Rate 0.36 (Water) compared to (n-BUTYL ACETATE=1)

LogKow 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 Slightly reactive to reactive with organic materials, metals, acids.

Rem/Incompatibility Avoid excessive heat. Incompatible with organic halogens, nitro and chloro organic compounds, peroxide Incompatible products Zinc

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Hazardous Decomposition Products
Hazardous Polymerization

Aluminum Tin
 Not available.
 Will not occur.

Section 11. Toxicological Information**RTECS Number:**

Sodium Hydroxide WB4900000
 Water ZC0110000

Toxicity

LD50: Not available.
 LC50: Not available.

Chronic Effects on Humans

Contains material which may cause damage to the following organs: eye, lens or cornea.

Acute Effects on Humans

Hazardous in case of eye contact (corrosive). Causes eye burns.
 Hazardous in case of skin contact (corrosive). Skin contact produces burns. Hazardous in case of ingestion.

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**

Proper Shipping Name: SODIUM HYDROXIDE SOLUTION
 Hazard Class: 8

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UN number: UN1824
 Packing Group: II
 RQ: Not applicable.

TDG Classification
IMO/IMDG Classification
ICAO/IATA Classification

Not available.
 Not available.
 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
 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–IB: Material causing immediate and serious toxic effects (TOXIC).
 Class D–2A: Material causing other toxic effects (VERY TOXIC).
 CLASS E: Corrosive liquid.
 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)

R34– Causes burns.

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

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Pennsylvania RTK: SODIUM HYDROXIDE: (environmental hazard, generic environmental hazard)
 Massachusetts RTK: SODIUM HYDROXIDE
 New Jersey: Sodium Hydroxide 1.000N
 California prop. 65: No products were found.

Section 16. Other Information

National Fire Protection Association (U.S.A.) 0 0
Health 3

Fire Hazard**Reactivity****Specific Hazard****Changed Since Last Revision**

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Notice to Reader

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