Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name **Sodium Hydroxide 10N** **Product Code** VW3247

Manufacturer EMD Chemicals Inc. **Effective Date** **11/16/2001**

P.O. Box 70
480 Democrat Road
Gibbstown, N.J. 08027
Prior to January 1, 2003 EMD Chemicals was
EM Science, a Division of EM Industries, Inc.

For More Information Call	**In Case of Emergency Call**
856–423–6300 Technical Service	800–424–9300 CHEMTREC (USA)
Monday–Friday: 8:00 AM – 5:00 PM	613–996–6666 CANUTEC (Canada)
	24 Hours/Day: 7 Days/Week

Synonym None.
Material Uses Laboratory Reagent
Chemical Family Caustic Solution

Section 2. Composition and Information on Ingredients

Component	**CAS #**	**% by Weight**
SODIUM HYDROXIDE	1310–73–2	30.1
Water	7732–18–5	69.9

Section 3. Hazards Identification

Physical State and Appearance Liquid.

Emergency Overview DANGER !
HARMFUL IF INHALED.
MAY BE FATAL IF SWALLOWED.
CAUSES EYE AND SKIN BURNS.
MAY CAUSE RESPIRATORY TRACT BURNS.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.
MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: LUNGS, SKIN, EYES.

Routes of Entry Absorbed through skin. Dermal contact. Eye contact. 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. May be hazardous in case of skin contact (permeator).

Inhalation Hazardous in case of inhalation. May be hazardous in case of inhalation (lung corrosive).

Ingestion Extremely hazardous in case of ingestion. May be fatal if swallowed.

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 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. 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 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	Not applicable.
Protective Clothing (Fire)	Not applicable.
Special Remarks on Fire Hazards	Not available.
Special Remarks on Explosion Hazards	Not available.

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. 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 EMD Chemicals Inc. SpillSolv (TM) absorbent is recommended

for this product:
SX1320 Caustic Treatment Kit

Section 7. Handling and Storage

Handling Avoid prolonged contact with eyes, skin, and clothing. Do not ingest. Do not breathe vapor or mist. Keep container closed. 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 threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work−station location.

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.

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	Exposure Limits
SODIUM HYDROXIDE	**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, Period: 5 minute(s). MAK: 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−Arbejdstylsinet (Denmark, 1996).** Loftvaerdi: 2 mg/m3 GV: 2 mg/m3 **Tyterveyslaitos (Finland, 1998).** 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−Arbeidstylsinet (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
Water	Not available.

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	Reactive with metals, acids. Slightly reactive to reactive with organic materials.
Rem/Incompatibility	Flammable liquid.
Hazardous Decomposition Products	Na2O
Hazardous Polymerization	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	Not available.	
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. May be hazardous in case of skin contact (permeator). Hazardous in case of inhalation. May be hazardous in case of inhalation (lung corrosive). Extremely hazardous in case of ingestion. May be fatal if swallowed.	
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
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−1B: Material causing immediate and serious toxic effects (TOXIC).
CLASS E: Corrosive liquid.
CEPA DSL: SODIUM HYDROXIDE; Water

International Regulations

EINECS SODIUM HYDROXIDE 215−185−5
Water 231−791−2

DSCL (EEC) R35− Causes severe 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 Pennsylvania RTK: SODIUM HYDROXIDE: (environmental hazard, generic environmental hazard)
Massachusetts RTK: SODIUM HYDROXIDE
New Jersey: Sodium Hydroxide 10N
California prop. 65: No products were found.

Section 16. Other Information

National Fire Protection Association (U.S.A.)	**Health**	**0**	**Fire Hazard**
	3	**0**	**Reactivity**
			Specific Hazard

Changed Since Last Revision +

Notice to Reader

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