

MATERIAL SAFETY DATA SHEET (MSDS)

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EM SCIENCE

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer.....: EM SCIENCE
A Division of EM Industries
P.O. Box 70
480 Democrat Road
Gibbstown, N.J. 08027

Preparation Date.: 9/14/98

Information Phone Number.: 856-423-6300
Hours: Mon. to Fri. 8:30-5
Chemtrec Emergency Number: 800-424-9300
Hours: 24 hrs a day

Catalog Number(s):

0050325B 00503264 0050326C PX1478 PX1480 PX1482 PX1485
PX1490 PX1495

Product Name:

Potassium Hydroxide, solid

Synonyms:

Caustic Potash

Chemical Family:

Alkali (Inorganic Base)

Formula:

KOH

Molecular Weight.:

56.11

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS #	Appr %
Potassium Hydroxide	1310-58-3	100%

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

POISON!

CAUSES SEVERE BURNS.

Appearance:

White odorless deliquescent pellets/flakes

POTENTIAL HEALTH EFFECTS (ACUTE AND CHRONIC)

Symptoms of Exposure:

Extremely toxic and corrosive. Causes severe burns on contact with any body tissue. Vapor irritating to eyes and respiratory passages.

Medical Cond. Aggravated by Exposure:

Data not available.

Routes of Entry:

Inhalation, ingestion

Carcinogenicity:

The material is not listed (IARC, NTP, OSHA) as cancer causing agent.

4. FIRST AID MEASURES

Emergency First Aid:

GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE.

Skin: Immediately flush thoroughly with large amounts of water.

Eyes: Immediately flush thoroughly with water for at least 15 minutes.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped.

Ingestion: Do not induce vomiting; if conscious, give water freely and get medical attention.

Remove contaminated clothing and wash before reuse.

5. FIRE FIGHTING MEASURES

Flash Point (F): Noncombustible

Flammable Limits LEL (%): N/A

Flammable Limits UEL (%): N/A

Extinguishing Media:

Water fog (DO NOT SPLATTER OR SPLASH THIS MATERIAL)

Fire Fighting Procedures:

Wear self-contained breathing apparatus and protective clothing.

Fire & Explosion Hazards:

Thermal decomposition produces highly toxic fumes.

6. ACCIDENTAL RELEASE MEASURES

Spill Response:

Evacuate the area of all unnecessary personnel. Wear suitable protective equipment listed under Exposure / Personal Protection. Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards. Contain the

release and eliminate its source, if this can be done without risk. Take up and containerize for proper disposal as described under Disposal. Comply with Federal, State, and local regulations on reporting releases. Refer to Regulatory Information for reportable quantity and other regulatory data.

7. HANDLING AND STORAGE

Handling & Storage:

Store in a dry area away from acids, metals, organic peroxides and easily ignitable materials. Keep container tightly closed. Do not breathe dust or vapor. Do not get in eyes, on skin, or on clothing. Retained residue may make empty containers hazardous; use caution!

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT:

Ventilation, Respiratory Protection, Protective Clothing, Eye Protection:

Respiratory Protection: If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your safety equipment supplier). Engineering and/or administrative controls should be implemented to reduce exposure. Material must be handled or transferred in an approved fume hood or with equivalent ventilation. Protective gloves must be worn to prevent skin contact (Nitrile or equivalent) Safety glasses with side shields must be worn at all times. Impervious protective clothing should be worn to prevent skin contact.

Work/Hygenic Practices:

Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available.

EXPOSURE GUIDELINES

OSHA - PEL:

Component	TWA		STEL		CL		Skin
	PPM	MG/M3	PPM	MG/M3	PPM	MG/M3	
Potassium Hydroxide						2	

ACGIH - TLV:

Component	TWA		STEL		CL		Skin
	PPM	MG/M3	PPM	MG/M3	PPM	MG/M3	
Potassium Hydroxide				2		2	

If there are no exposure limit numbers listed in the Exposure Guidelines chart, this indicates that no OSHA or ACGIH exposure limits have been established.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (C 760 mmHg) : 1320C

Melting Point (C) : 360C
Specific Gravity (H₂O = 1) : 2.044
Vapor Pressure (mm Hg) : 1 719C
Percent Volatile by vol (%) : N/A
Vapor Density (Air = 1) : N/A
Evaporation Rate (BuAc = 1) : N/A
Solubility in Water (%) : Soluble
Appearance :
White odorless deliquescent pellets/flakes

10. STABILITY AND REACTIVITY

Stability: Yes

Hazardous Polymerization:

Does not occur

Hazardous Decomposition:

In contact with some metals, hydrogen gas is generated

Conditions to Avoid:

Moisture

Materials To Avoid:

- (X) Water
- (X) Acids
- () Bases
- () Corrosives
- () Oxidizers
- (X) Other: Common metals and their alloys; acids and their anhydrides; easily oxidizable compounds; including explosives, aldehydes and unsaturated organics

11. TOXICOLOGICAL INFORMATION

Toxicity Data

orl-rat LD50: 273 mg/kg

Toxicological Findings:

Tests on laboratory animals indicate material may produce adverse mutagenic effects.

Cited in Registry of Toxic Effects of Chemical Substances (RTECS)

12. DISPOSAL CONSIDERATIONS

EPA Waste Numbers: D002

Treatment:

Specified Technology - Neutralize to pH 6-9. Contact your local permitted waste disposal site (TSD) for permissible treatment sites.

ALWAYS CONTACT A PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.

13. TRANSPORT INFORMATION

DOT Proper Shipping Name:

Potassium Hydroxide, Solid

DOT ID Number :

UN1813

14. REGULATORY INFORMATION

TSCA Statement:

The CAS number of this product is listed on the TSCA Inventory.

Component	SARA EHS (302)	SARA EHS TPQ (lbs)	CERCLA RQ (lbs)
Potassium Hydroxide			1000

Component	OSHA Floor List	SARA 313	DeMinimis for SARA 313 (%)
Potassium Hydroxide	Y		

If there is no information listed on the regulatory information chart, this indicates that the chemical is not covered by the specific regulation listed.

15. OTHER INFORMATION

Comments:

None

NFPA Hazard Ratings:

Health : 3
 Flammability : 0
 Reactivity : 1
 Special Hazards :

Revision History: 7/1/83 11/1/84 6/16/87 10/27/87
4/11/89 3/1/91 12/9/92 2/6/93 3/7/95 2/4/97

| = Revised Section

N/A = Not Available

N/E = None Established

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