

**THATCHER COMPANY MATERIAL SAFETY DATA SHEET****PRODUCT: POTASSIUM HYDROXIDE SOLUTION**

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MSDS Date: January 28, 1999
Emergency Contact: 1-800-424-9300**SECTION I****PRODUCT NAME:** Potassium Hydroxide Solution**CHEMICAL DESCRIPTION:** Aqueous solution of potassium hydroxide.**SYNONYMS:** Caustic potash solution, Lye solution**DOT SHIPPING INFORMATION:** Potassium hydroxide solution, 8, UN1814, PG II
RQ=1000 lbs.**SECTION II - HAZARDOUS INGREDIENTS**

This material contains no ingredients which are known by Thatcher Company to be hazardous unless listed below.

HAZARDOUS MATERIAL	CAS NUMBER	w/w %	EXPOSURE LIMITS IN AIR
Potassium hydroxide	1310-58-3	45-50	2 mg/m ³ Ceiling

The specific identity of some ingredients may be withheld for confidential business purposes. However, all known potential health effects from exposure to these ingredients are being addressed.

SECTION III - PHYSICAL DATA**BOILING POINT:** 45%: 270EF (132EC) **SPECIFIC GRAVITY (@60EF):** 45%: 1.457
50%: 290EF (143EC) 50%: 1.516**VAPOR PRESSURE (mm Hg @140EF):** 45%: 39 **% VOLATILE, BY VOLUME:** About 50%
50%: 27**VAPOR DENSITY (air = 1):** N.A. **EVAPORATION RATE:** Similar to water.**SOLUBILITY IN WATER:** Complete**APPEARANCE AND ODOR:** Clear, yellowish liquid with slight odor.**SECTION IV - FIRE AND EXPLOSION DATA****FLASH POINT:** Nonflammable**FLAMMABLE LIMITS:**

Lel: N/A Uel: N/A

EXTINGUISHING MEDIA:

Suitable for surrounding fire.

SPECIAL FIRE-FIGHTING PROCEDURES:

Wear clothing and equipment to avoid body contact.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

This material is corrosive to all human tissue. It will react violently with many organic chemicals, especially nitrocarbons and chlorocarbons. This material reacts with zinc, aluminum, tin, and other active metals liberating flammable hydrogen gas. Dilution with water evolves large amounts of heat.



SECTION V - REACTIVITY DATA

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS OR MATERIALS TO AVOID:

Mixture with water, acid or incompatible materials can cause splattering and release of large amounts of heat.
Will react with active metals forming flammable hydrogen gas. Exposure to air can form potassium carbonate.

HAZARDOUS DECOMPOSITION PRODUCTS:

Will not decompose.

SECTION VI - HEALTH HAZARD DATA

CARCINOGENIC LISTING:

NTP: No ingredients listed in this section.

IARC MONOGRAPHS: No ingredients listed in this section.

OSHA 29 CFR 1910: No ingredients listed in this section.

ENTRY ROUTES & EFFECTS OF OVEREXPOSURE:

Contact: Contact with concentrated solutions may cause serious burns to human tissue.

Ingestion: Damages throat area and gastro-respiratory tract.

Eyes: Will cause severe to permanent injury.

Inhalation: Mist may cause injury to entire respiratory tract.

STATEMENT OF PRACTICAL TREATMENT:

Contact: Immediately flush exposed area thoroughly with water. Remove contaminated clothing. If irritation persists, consult a physician.

Ingestion: If conscious, give several glasses of water or fruit juice. **Do not** induce vomiting. Call a physician or local Poison Control Center at once!

Eyes: Flush with water for 15 minutes including under eyelids.

Inhalation: Remove to fresh air. Treat symptomatically.

SECTION VII - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

Store in closed, properly labeled tanks or containers.

STEPS TO BE TAKEN IF MATERIAL SPILLS OR LEAKS:

Cleanup personnel must wear proper protective equipment. Completely contain spilled material with dikes, sandbags, etc., and prevent run-off into ground or surface waters or sewers. Recover as much material as



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possible into containers for disposal. Remaining material may be neutralized. Neutralization products, both liquid and solid, must be recovered for disposal. Reportable Quantity (RQ) is 1000 lbs.

WASTE DISPOSAL METHOD:

Recovered solids or liquids may be sent to a licensed reclaimer or disposed of in a permitted waste management facility. Consult federal, state, or local disposal authorities for approval procedures.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

For levels which exceed or are likely to exceed $2\text{mg}/\text{m}^3$ use a NIOSH/MSHA approved high-efficiency particulate filter with full facepiece or self-contained breathing apparatus. Follow any applicable respirator use standards and regulations.

VENTILATION:

As necessary to maintain concentration in air below $2\text{mg}/\text{m}^3$ at all times.

EYE PROTECTION:

Chemical goggles which are splashproof and faceshield..

SKIN PROTECTION:

Wear neoprene, PVC, or rubber gloves; PVC rain suit; rubber boots with pant legs over boots.

OTHER PROTECTIVE EQUIPMENT:

Safety shower and eyewash station must be located in immediate work area. Monitoring should be conducted to determine exposure levels.

ACGIH = American Conference of Governmental Industrial Hygienists

CL = Ceiling Level

IARC = International Agency for Research on Cancer: Monographs

OSHA = Occupational Safety and Health Administration

N/A = Not Applicable

NTP = National Toxicology Program: Annual Report on Carcinogens

PEL = Permissible Exposure Level (OSHA)

TLV = Threshold Limit Value (ACGIH)

TWA = Time Weighted Average over 8 Hours

STEL = Short Term Exposure Limit (ACGIH)

ND = Not Determined

This information is, to the best of our knowledge, accurate but may not be complete. THATCHER COMPANY furnishes this information in good faith, but without warranty, representation or guarantee of its accuracy, completeness, or reliability.