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# MATERIAL SAFETY DATA SHEET

MSDS No.: PP0570  
Revision Date: January 4, 2012  
Approved by: James A. Bertsch

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## Section 1 Chemical Product and Company Information

Product	POTASSIUM HYDROXIDE
Synonyms	Caustic Potash; Potassium Hydrate

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300

## Section 2 Hazards Identification

### Emergency Overview

**DANGER! CORROSIVE! POISON** ☠

MAY BE FATAL IF SWALLOWED. CAUSES SEVERE BURNS.

Avoid inhalation of dusts. Avoid contact with skin, eyes and clothing. Deliquescent. Protect from moisture. When preparing solutions, while stirring, slowly add product to surface of liquid to avoid violent spattering. Target organs: None known.

0 = Minimal  
1 = Slight  
2 = Moderate  
3 = Serious  
4 = Severe

Health	3
Fire	0
Reactivity	2
Contact	4

HMIS \*

## Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	TLV Units (ACGIH 2001)
Potassium hydroxide	1310-58-3	100%	TWA: C 2 mg/m <sup>3</sup>

## Section 4 First Aid Measures

**INGESTION:** Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

**SKIN CONTACT:** Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

## Section 5 Fire Fighting Measures

**General information:** In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Contact with water produces intense heat and highly irritating and corrosive mist. Avoid direct contact of this product with water since this can cause a violent exothermic reaction. The heat generated may be sufficient to ignite combustible materials. Contact with some metals can generate hydrogen gas. In case of fire, use flooding amounts of water.

**Extinguishing Media:** Use any media suitable for extinguishing supporting fire.

**Flash Point:** Not flammable.

**Autoignition temperature:** N/A

**Explosion Limits: Lower:** N/A **Upper:** N/A

0 = Minimal  
1 = Slight  
2 = Moderate  
3 = Serious  
4 = Severe



## Section 6 Accidental Release Measures

Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation. Recover for use if not contaminated. Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water. Avoid runoff into storm sewers and ditches which lead to waterways.

(2008 EMERGENCY RESPONSE GUIDEBOOK, (PHH50-ERG2008), GUIDE # 154)

## Section 7 Handling & Storage CORROSIVE STORAGE CODE WHITE

Read label on container before using. Do not wear contact lenses when working with chemicals. Keep container tightly closed. For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

**Handling:** Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid ingestion. Do not inhale dusts or mist. Wash thoroughly after handling. Remove and wash clothing before reuse.

**Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances. Protect from moisture.

## Section 8 Exposure Controls / Personal Protection

**Engineering controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

**Respiratory protection:** None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

## Section 9 Physical & Chemical Properties

**Physical state:** Solid.

**Appearance:** White pellets.

**Odor:** No odor.

**pH:** N/A

**Vapor pressure (mm Hg):** 1 mm @ 719°C

**Vapor Density (Air = 1):** N/A

**Evaporation rate (Butyl acetate = 1):** N/A

**Viscosity:** N/A

**Boiling point:** 1320°C (2408°F)

**Freezing / Melting point:** 361°C (682°F)

**Decomposition temperature:** N/A

**Solubility:** Complete.

**Specific gravity (H<sub>2</sub>O = 1):** 2.044

**Percent volatile (%):** 100%

**Molecular formula:** KOH

**Molecular weight:** 56.11

## Section 10 Stability & Reactivity

**Chemical stability:** Stable

**Hazardous polymerization:** Will not occur.

**Conditions to avoid:** Do not heat above melting point. Protect from moisture. Reacts violently with water.

**Incompatibilities with other materials:** Acids, aluminum, halogens, nitro compounds, organic materials, acid chlorides, acid anhydrides, magnesium, copper, tin and zinc.

**Hazardous decomposition products:** Hydrogen gas in contact with water.

## Section 11 Toxicological Information

**Effects of overexposure:** Harmful if swallowed, inhaled or absorbed through skin. Material is extremely destructive to tissues of the mucous membranes, upper respiratory tract, skin and eyes. Inhalation may be fatal as a result of spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Exercise appropriate procedures to minimize potential hazards.

RTCS #: TT2100000

ORAL-RAT LD50: 273 mg/kg

## Section 12 Ecological Information

Data not yet available.

## Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

## Section 14 Transport Information

**UN/NA number:** UN1813

**Shipping name:** Potassium hydroxide, solid

**Hazard class:** 8

**Packing group:** II

**Exceptions:** Limited quantity equal to or less than 1 Kg.

## Section 15 Regulatory Information

TSCA-listed, EINECS-listed (215-181-3), RCRA code D002, D003, DSL-listed.

## Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. \* Hazardous Materials Industrial Standards.