



# Environmental, Safety and Transportation Data Sheet

## POTASSIUM HYDROXIDE

I PRODUCT IDENTIFICATION		
SUPPLIER NL BAROID	TELEPHONE NO 713/987-5900	
ADDRESS P.O. BOX 1675 HOUSTON, TEXAS 77251		
TRADE NAME POTASSIUM HYDROXIDE		
GENERIC DESCRIPTION CAUSTIC POTASH, POTASSIUM HYDRATE		
II HAZARDOUS INGREDIENTS		
MATERIAL OR COMPONENT	%	HAZARD DATA
POTASSIUM HYDROXIDE	100	CORROSIVE TLV 2 mg/m <sup>3</sup>
III PHYSICAL DATA		
BOILING POINT (°F) 182	MELTING POINT ND	FREEZING POINT NA
SPECIFIC GRAVITY (H <sub>2</sub> O = 1) 1.5	VAPOR PRESSURE (mm Hg) 39 mm @ 140°F	
VAPOR DENSITY (AIR = 1) NA	SOLUBILITY IN H <sub>2</sub> O, % BY WT 100	
% VOLATILES BY VOL NA	EVAPORATION RATE (BUTYL ACETATE = 1) NA	
APPEARANCE AND ODOR CLEAR LIQUID, ODORLESS	Density @ 20°C 45% SOLN. 1.5 gms/cc @ 15.5°F	
pH ND		

POTASSIUM HYDROXIDE

HEALTH HAZARD

FLAMMABILITY

REACTIVITY

Ratings based on NIOSH "Identification System for Occupationally Hazardous Materials" (1974)

NA = Not Applicable ND = Not Determined

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# BEST Sheet

## IV FIRE AND EXPLOSION DATA

POTASSIUM HYDROXIDE IS NOT FLAMMABLE OR COMBUSTIBLE.

EXTINGUISHING MEDIA: WATER

SPECIAL FIRE FIGHTING PROCEDURES: USE CARE NOT TO SPLATTER OR SPLASH THIS MATERIAL WHEN FLOODING WITH WATER, SINCE IT IS HARMFUL UPON CONTACT WITH SKIN.

## V HEALTH HAZARD INFORMATION

CARCINOGENICITY — NOT ON NTP, IARC OR OSHA LISTS

ACUTE ORAL LD <sub>50</sub>	360 mg/kg	ACUTE DERMAL LD <sub>50</sub>	ND	AQUATIC TOXICITY (LC <sub>50</sub> )	ND
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### ROUTES OF EXPOSURE AND EFFECTS

SKIN CONTACT: SEVERE IRRITATION, BURNS.

EYE CONTACT: SEVERE DAMAGE TO TISSUE, MAY INVOLVE PERMANENT DAMAGE.

INHALATION: INJURY TO RESPIRATORY TRACT. INFLAMMATION OF THE LUNGS.

INGESTION: BURNING IN MOUTH AND ESOPHAGUS, NAUSEA, VOMITING, STOMACH PAIN, DIARRHEA.

POTASSIUM HYDROXIDE TLV = 2 mg/m<sup>3</sup>

### EMERGENCY AND FIRST AID PROCEDURES

IMMEDIATELY FLUSH SKIN WITH WATER IN LARGE AMOUNTS FOR AT LEAST 15 MINUTES TO AVOID INJURY. IRRIGATE EYES AT ONCE WITH LARGE QUANTITIES OF WARM WATER FOR AT LEAST 15 MINUTES. CONTACT PHYSICIAN. REMOVE ALL CONTAMINATED CLOTHING AND SHOWER. IF SWALLOWED, GIVE PERSON LARGE AMOUNTS OF WATER. DO NOT INDUCE VOMITING. CONTACT PHYSICIAN. IF INHALED, REMOVE PERSON TO FRESH AIR. IF BREATHING HAS STOPPED GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, SUPPLY OXYGEN.

# BEST Sheet

## VI REACTIVITY DATA

### CONDITIONS CONTRIBUTING TO INSTABILITY

REACTS WITH WATER TO PRODUCE HEAT.

### INCOMPATIBILITY

ACIDS, METALS, EXPLOSIVES, ORGANIC PEROXIDES, WATER, EASILY IGNITABLE MATERIALS, ORGANIC HALOGENS, ALUMINUM, TIN, ZINC, NITRO COMPOUNDS.

### HAZARDOUS DECOMPOSITION PRODUCTS

ND

### CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION

NONE

## VII SPILL OR LEAK PROCEDURES

### STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

RQ (DOT & EPA) - 1000 lbs/454 kg.

FOR SOLID: SHOVEL UP. DILUTE WITH WATER AND NEUTRALIZE WITH 6M-HCl OR OTHER SUITABLE ACID.

FOR SOLUTION: PICK UP WITH SAND OR OTHER NONCOMBUSTIBLE ABSORBENT MATERIAL. PLACE IN CONTAINER FOR DISPOSAL AND NEUTRALIZE.

### NEUTRALIZING CHEMICALS

HCl, H<sub>2</sub>SO<sub>4</sub>

### WASTE DISPOSAL METHOD

SEWER NEUTRALIZED SOLUTION. ANY RESIDUE FROM NEUTRALIZATION PROCESS SHOULD BE DISCARDED IN A DESIGNATED LAND FILL.

## VIII INDUSTRIAL HYGIENE CONTROL MEASURES

### VENTILATION REQUIREMENTS

USE LOCAL EXHAUST VENTILATION WHEN NECESSARY

### SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

#### RESPIRATORY

USE A NIOSH APPROVED MECHANICAL FILTER: FULL FACE PIECE.

#### EYE

GOGGLE, FULL FACE SHIELD

#### GLOVES

RUBBER

#### OTHER CLOTHING AND EQUIPMENT

APRON, COVERALLS, BOOTS  
EYEWASH AND SHOWER

# BEST Sheet

## IX SPECIAL PRECAUTIONS

### PRECAUTIONARY STATEMENTS

AVOID BREATHING VAPORS.

AVOID CONTACT WITH EYES, SKIN, AND CLOTHING.

WASH THOROUGHLY AFTER HANDLING.

ALWAYS USE PROPER PERSONAL PROTECTIVE EQUIPMENT WHEN HANDLING CAUSTIC POTASH.

### OTHER HANDLING AND STORAGE REQUIREMENTS

PROTECT CONTAINER AGAINST PHYSICAL DAMAGE.

STORE IN A DRY PLACE, SINCE CAUSTIC POTASH IS VERY HYDROSCOPIC.

KEEP SEPARATE FROM ACIDS, METALS, EXPLOSIVES, ORGANIC PEROXIDES, AND EASILY IGNITABLE MATERIALS.

### DEPARTMENT OF TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: POTASSIUM HYDROXIDE

HAZARD CLASS: CORROSIVE MATERIAL

HAZARDOUS SUBSTANCE: POTASSIUM HYDROXIDE

LABEL: CORROSIVE

UN 1814<sup>3</sup>

PREPARED BY **NL Barold**  
ENVIRONMENTAL SERVICES

DATE  
JULY, 1987