

# POTASSIUM HYDROXIDE

0357

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CAS No: 1310-58-3  
RTECS No: TT2100000  
UN No: 1813  
EC No: 019-002-00-8

Caustic potash  
Potassium hydrate  
Potassium lye  
KOH  
Molecular mass: 56.1

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Not combustible. Contact with moisture or water may generate sufficient heat to ignite combustible materials.		In case of fire in the surroundings: all extinguishing agents allowed.
<b>EXPLOSION</b>			

EXPOSURE		AVOID ALL CONTACT!	IN ALL CASES CONSULT A DOCTOR!
<b>Inhalation</b>	Corrosive. Burning sensation. Sore throat. Cough. Laboured breathing. Shortness of breath. Symptoms may be delayed (see Notes).	Local exhaust or breathing protection.	Fresh air, rest. Half-upright position. Artificial respiration if indicated. Refer for medical attention.
<b>Skin</b>	Corrosive. Redness. Pain. Blisters. Serious skin burns.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention.
<b>Eyes</b>	Corrosive. Redness. Pain. Blurred vision. Severe deep burns.	Face shield, or eye protection in combination with breathing protection if powder.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>Ingestion</b>	Corrosive. Abdominal pain. Burning sensation. Shock or collapse.	Do not eat, drink, or smoke during work.	Rinse mouth. Do NOT induce vomiting. Give plenty of water to drink. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Sweep spilled substance into suitable containers. Wash away remainder with plenty of water. (Extra personal protection: complete protective clothing including self-contained breathing apparatus).	C Symbol R: 22-35 S: (1/2-)26-36/37/39-45 UN Hazard Class: 8 UN Pack Group: II  Unbreakable packaging; put breakable packaging into closed unbreakable container. Do not transport with food and feedstuffs.

EMERGENCY RESPONSE	STORAGE
Transport Emergency Card: TEC (R)-123 NFPA Code: H 3; F 0; R 1	Separated from strong acids, metals, food and feedstuffs. Dry. Well closed. Store in an area having corrosion resistant concrete floor.

## IMPORTANT DATA

**Physical State; Appearance**

WHITE, DELIQUESCENT SOLID, WITH NO ODOUR.

**Chemical dangers**

The substance is a strong base, it reacts violently with acid and is corrosive in moist air to metals such as zinc, aluminium, tin and lead forming a combustible/explosive gas (hydrogen - see ICSC0001). Reacts with ammonium salts to produce ammonia and causing fire hazard. Attacks some forms of plastics, rubber or coatings. Rapidly absorbs carbon dioxide and water from air. Contact with moisture or water will generate heat (see Notes).

**Occupational exposure limits**

TLV: 2 mg/m<sup>3</sup> (ceiling values) (ACGIH 2000. MAK not established.

**Routes of exposure**

The substance can be absorbed into the body by inhalation of its aerosol and by ingestion.

**Inhalation risk**

Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly.

**Effects of short-term exposure**

Corrosive. The substance is very corrosive to the eyes, the skin and the respiratory tract. Corrosive on ingestion. Inhalation of an aerosol of this substance may cause lung oedema (see Notes).

**Effects of long-term or repeated exposure**

Repeated or prolonged contact with skin may cause dermatitis.

## PHYSICAL PROPERTIES

Boiling point: 1324°C  
Melting point: 380°C

Density: 2.04 g/cm<sup>3</sup>  
Solubility in water, g/100 ml at 25°C: 110

## ENVIRONMENTAL DATA

This substance may be hazardous to the environment; special attention should be given to water organisms.

## NOTES

The applying occupational exposure limit value should not be exceeded during any part of the working exposure. The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential.  
NEVER pour water into this substance; when dissolving or diluting always add it slowly to the water.  
Other UN number: UN1814 Potassium hydroxide solution, hazard class 8.

## ADDITIONAL INFORMATION

## LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible for the use which might be made of this information