

## Material Safety Data Sheet

### SECTION 1 IDENTIFICATION

**Product Name:** POTASSIUM HYDROXIDE, SOLID.

**Other Name:** /

**Recommended use of the chemical and restrictions on use:** /

### SECTION 2 HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

Metal Corrosion Category 1, Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 1B, Serious Eye Damage Category 1, Acute Aquatic Hazard Category 3.

#### GHS Label elements, including precautionary statements



**Signal word:** Danger.

**Hazard statement(s):** May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage. Harmful to aquatic life.

#### Precautionary statement(s):

**Prevention:** Keep only in original container. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.

**Response:** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. Specific treatment (see in the next). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Absorb spillage to prevent material damage.

**Storage:** Store in corrosive resistant/container with a resistant inner liner. Store locked up.

**Disposal:** Dispose of contents/container to relevant regulations.

**Other hazards which do not result in classification:** /

## SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration%
Potassium hydroxide	1310-58-3	90.4%

## SECTION 4 FIRST AID MEASURES

### Description of necessary first aid measures

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact:** Immediately flush body and clothes with large amounts of water, using safety shower if available. Quickly remove all contaminated clothing, including footwear.

**If swallowed:** For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully.

**Most important symptoms and effects, both acute and delayed:**

**Indication of immediate medical attention and special treatment needed :** /

## SECTION 5 FIREFIGHTING MEASURES

**Suitable extinguishing media:** Water spray or fog. Foam. Dry chemical powder. BCF (where regulations permit). Carbon dioxide.

**Special hazards arising from the chemical:** Non-combustible. Not considered a significant fire risk, however containers may burn.

**Special protective actions for fire-fighters:** Wear self-contained breathing apparatus for firefighting if necessary. Use water spray to cool unopened containers.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment.

**Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up:** Collect recoverable product into labelled containers for recycling. Neutralize/decontaminate residue (see Section 13 for specific agent). Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains. After clean-up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.

## SECTION 7 HANDLING AND STORAGE

**Precautions for safe handling:** Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area

**Conditions for safe storage, including any incompatibilities:** Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. DO NOT store near acids or oxidizing agents. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storing and handling recommendations.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters:** /

**Appropriate engineering controls:** Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection.

**Personal protective equipment**

**Eye/face protection:** Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.

**Skin protection:** Wear chemical protective gloves, eg. PVC. Wear safety footwear or safety gumboots, eg. Rubber. Impervious clothing, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection:** Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	White powder.
<b>Odour</b>	/
<b>Odour Threshold</b>	/
<b>pH</b>	13.5 (0.1 mol/L)
<b>Melting point/freezing point</b>	/
<b>Initial boiling point and boiling range</b>	/
<b>Flash point</b>	/
<b>Evaporation rate</b>	/
<b>Flammability (solid, gas)</b>	/
<b>Upper/lower flammability or explosive limits</b>	/
<b>Vapour pressure</b>	/
<b>Vapour density</b>	/
<b>Relative density</b>	2.04 (water=1)
<b>Water solubility</b>	Miscible

<b>Partition coefficient: noctanol/water</b>	/
<b>Autoignition temperature</b>	/
<b>Decomposition temperature</b>	/
<b>Viscosity</b>	/

## SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** /

**Chemical stability:** Contact with strong acids liberates heat. Product is considered stable.

**Possibility of hazardous reactions:** Hazardous polymerization will not occur.

**Conditions to avoid:** Presence of incompatible materials.

**Incompatible materials:** strong acids, acid chlorides, acid anhydrides and chloroformates.

**Hazardous decomposition products:** /

## SECTION 11 TOXICOLOGICAL INFORMATION

### Acute health effects

**Inhalation:** The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.

**Ingestion:** Ingestion of alkaline corrosives may produce burns around the mouth, ulcerations and swellings of the mucous membranes, profuse saliva production, with an inability to speak or swallow.

**Skin:** Skin contact with alkaline corrosives may produce severe pain and burns; brownish stains may develop. The corroded area may be soft, gelatinous and necrotic; tissue destruction may be deep.

**Eyes:** If applied to the eyes, this material causes severe eye damage.

**Chronic health effects:** Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue. Gastrointestinal disturbances may also occur. Chronic exposures may result in dermatitis and/or conjunctivitis.

**Numerical measures of toxicity (such as acute toxicity estimates):** LD<sub>50</sub> (oral, rat) 1230mg/kg.

## SECTION 12 ECOLOGICAL INFORMATION

**Toxicity:** Harmful to aquatic life.

**Persistence and degradability:** Water/Soil: LOW.

**Bioaccumulate potential:** LOW.

**Mobility in soil:** HIGH.

**Other adverse effects:** /

## SECTION 13 DISPOSAL CONSIDERATIONS

**Disposal methods:** Recycle wherever possible. Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. Treat and neutralize at an approved treatment plant. Treatment should involve: Neutralization with suitable dilute acid followed by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material). Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

## SECTION 14 TRANSPORT INFORMATION

**UN number:** 1813.

**UN proper shipping name:** SOLID POTASSIUM HYDROXIDE.

**Transport hazard class(es):** 8.

**Packaging group:** II.

**Environmental hazards:**

**Special precautions for user:** /

## SECTION 15 REGULATORY INFORMATION

**Regulations :**

This safety data sheet is in compliance with the following national standards: GB16483-2008 , GB13690-2009, GB6944-2005, GB/T15098-2008, GB18218-2009, GB15258-2009, GB6944-2005, GB190-2009, GB191-2009, GB12268-2008, GA57-1993, GB/T 15098-2008, GBZ 2-2007as well as the following national regulations: Dangerous Goods Transport Administrative Regulation, Dangerous Chemicals Safety Administrative Regulation, United Nations Regulations on the Transport of Dangerous Goods (UN RTDG)

## SECTION 16 OTHER INFORMATION

**References** "Model Regulations on the Transport of Dangerous Goods" "The Globally Harmonized System of Classification and Labelling of Chemicals"

**Form Date** 25-Mar-2019