

**Potassium hydroxide concentrate****38073-1EA**

Version 1.1

Revision Date 12/07/2021

Print Date 05/15/2023

**SECTION 1. IDENTIFICATION**

Product name : Potassium hydroxide concentrate

Number : 000000021281

Product Use Description : Laboratory chemicals

Manufacturer or supplier's details : Honeywell International Inc.  
1953 South Harvey Street  
Muskegon, MI 49442

For more information call : 1-800-368-0050  
+1-231-726-3171(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**  
: **Transportation (CHEMTREC): 1-800-424-9300 or**  
: **+1-703-527-3887**  
:  
: (24 hours/day, 7 days/week)

**SECTION 2. HAZARDS IDENTIFICATION****Emergency Overview**

Form : liquid

Color : colourless

Odor : odourless

**Classification of the substance or mixture**

Classification of the substance or mixture : Corrosive to metals, Category 1  
Acute toxicity, Category 4, Oral  
Skin corrosion, Category 1A  
Serious eye damage, Category 1

**GHS Label elements, including precautionary statements**

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Symbol(s)

:



Signal word

: Danger

Hazard statements

: May be corrosive to metals.  
Harmful if swallowed.  
Causes severe skin burns and eye damage.

Precautionary statements

: **Prevention:**  
Keep only in original container.  
Wash skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Wear protective gloves/protective clothing/eye protection/face protection.

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

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

Dispose of contents/ container to an approved waste disposal plant.

**Carcinogenicity**

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No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Formula : HKO

Chemical nature : Mixture

Chemical name	CAS-No.	Concentration
Potassium hydroxide	1310-58-3	>=25.00 - <=50.00 %
Water	7732-18-5	>=50.00 - <=75.00 %

**SECTION 4. FIRST AID MEASURES**

General advice : Immediately take off contaminated clothing and rinse body with plenty of water. First aider needs to protect himself. Move out of dangerous area.

Inhalation : Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present. Call a physician immediately.

Skin contact : Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. Call a physician immediately.

Eye contact : Protect unharmed eye. Irrigate eyes for at least 15 minutes with copious quantities of water, keeping eyelids apart and away from eyeballs during irrigation. Small amounts splashed into eyes can cause irreversible tissue damage and blindness. Call a physician immediately.

Ingestion : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Drink plenty of

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water. Call a physician immediately.

**Notes to physician**

Most important symptoms/effects, acute and delayed : No information available.

Indication of immediate medical attention and special treatment needed, if necessary : Treat symptomatically.

**SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media : Water spray  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry powder

Specific hazards during firefighting : Contact with metals liberates hydrogen gas.  
Fire may cause evolution of:  
Potassium oxide

Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.  
No unprotected exposed skin areas.

Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.  
Wear personal protective equipment. Unprotected persons must be kept away.  
Ensure adequate ventilation.  
Do not breathe vapours or spray mist.  
Do not get in eyes, on skin, or on clothing.

Environmental precautions : Prevent further leakage or spillage if safe to do so.  
Do not flush into surface water or sanitary sewer system.

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Should not be released into the environment.

Methods and materials for  
containment and cleaning  
up : Soak up with inert absorbent material.  
Sweep up and shovel into suitable containers for disposal.  
Dispose of in accordance with local regulations.

**SECTION 7. HANDLING AND STORAGE****Handling**

Precautions for safe  
handling : Wear personal protective equipment.  
Use only in well-ventilated areas.  
Do not breathe vapours or spray mist.  
Do not get in eyes, on skin, or on clothing.

Advice on protection against  
fire and explosion : Normal measures for preventive fire protection.

**Storage**

Conditions for safe storage,  
including any  
incompatibilities : Store in original container.  
Keep container tightly closed in a dry and well-ventilated place.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Protective measures : Ensure that eyewash stations and safety showers are close to  
the workstation location.  
Legal requirements are to be considered in regard of the  
selection, use and care of personal protective equipment.  
Do not breathe vapours or spray mist.  
Do not get in eyes, on skin, or on clothing.

Engineering measures : Use with local exhaust ventilation.

Eye protection : Safety goggles

Hand protection : Protective gloves  
Viton®  
Gloves must be inspected prior to use.  
Replace when worn.

Skin and body protection : Protective suit

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Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.

Hygiene measures : Take off all contaminated clothing immediately.  
 Separate rooms are required for washing, showering and changing clothes.  
 Avoid contact with the skin and the eyes.  
 Recommended preventive skin protection  
 Wash hands before breaks and at the end of workday.  
 When using do not eat or drink.

### Exposure Guidelines

Components	CAS-No.	Value	Control parameters	Update	Basis
Potassium hydroxide	1310-58-3	Ceiling : Ceiling Limit Value:	2 mg/m3	2008	ACGIH:US. ACGIH Threshold Limit Values, as amended

Potassium hydroxide	1310-58-3	Ceil_Tim e : Ceiling Limit Value and Time Period (if specified) :	2 mg/m3	2016	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
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Potassium hydroxide	1310-58-3	Ceiling : Ceiling Limit Value:	2 mg/m3	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
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### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid

Color : colourless

Odor : odourless

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Odor threshold	: Note: No data available
pH	: 14 at , 20 °C
Melting point/range	: Note: No data available
Boiling point/boiling range	: > 100 °C
Flash point	: Note: Not applicable
Evaporation rate	: Note: No data available
Flammability	: Not applicable
Lower explosion limit	: Note: Not applicable
Upper explosion limit	: Note: Not applicable
Vapor pressure	: Note: No data available
Vapor density	: Note: No data available
Density	: ca. 1.29 - 1.37 g/cm <sup>3</sup> at 20 °C
Water solubility	: Note: completely miscible
Partition coefficient: n-octanol/water	: Note: No data available
Ignition temperature	: Note: Not applicable
Auto-ignition temperature	: Note: not auto-flammable

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Viscosity, dynamic	: Note: No data available
Viscosity, kinematic	: Note: No data available
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Molecular weight	: 56.11 g/mol
Bulk density	: Note: Not applicable
Corrosivity	: Note: Corrosive to metals

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	: Not classified as a reactivity hazard.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Hazardous polymerisation does not occur. Corrosive in contact with metals
Conditions to avoid	: Protect from contamination. Protect from atmospheric moisture and water.
Incompatible materials	: Metals Strong acids
Hazardous decomposition products	: Potassium oxide

**SECTION 11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity	: Note: Classification based on Annex VI of regulation 1272/2008/EC.
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Acute inhalation toxicity	: Note: Toxicity is determined by the corrosivity of the product.
Acute dermal toxicity	: Note: Toxicity is determined by the corrosivity of the product.
Skin irritation	: Note: Classification based on Annex VI of regulation 1272/2008/EC.
Eye irritation	: Species: Rat Result: Corrosive Method: OECD Test Guideline 405
Sensitisation	: Species: Guinea pig Classification: non-sensitizing Test substance: KOH (0,1%)
Repeated dose toxicity	: Note: No data available
Genotoxicity in vitro	: Test Method: Ames test Metabolic activation: with and without metabolic activation Result: negative

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity effects**

Toxicity to fish	: Note: No data available
Toxicity to daphnia and other aquatic invertebrates	: Note: No data available
Toxicity to algae	: Note: No data available

**Elimination information (persistence and degradability)**

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Biodegradability : Note: The methods for determining the biological degradability are not applicable to inorganic substances.

**Further information on ecology****SECTION 13. DISPOSAL CONSIDERATIONS**

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

**SECTION 14. TRANSPORT INFORMATION**

**DOT** UN/ID No. : UN 1814  
Proper shipping name : POTASSIUM HYDROXIDE SOLUTION  
Class : 8  
Packing group : II  
Hazard Labels : 8

**IATA** UN/ID No. : UN 1814  
Description of the goods : POTASSIUM HYDROXIDE SOLUTION  
Class : 8  
Packaging group : II  
Hazard Labels : 8  
Packing instruction (cargo aircraft) : 855  
Packing instruction (passenger aircraft) : 851  
Packing instruction (passenger aircraft) : Y840

**IMDG** UN/ID No. : UN 1814  
Description of the goods : POTASSIUM HYDROXIDE SOLUTION  
Class : 8  
Packaging group : II  
Hazard Labels : 8  
EmS Number : F-A, S-B  
Marine pollutant : no  
IMDG Code segregation group 18 – ALKALIS,

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**SECTION 15. REGULATORY INFORMATION****Inventories**

US. Toxic Substances Control Act : On TSCA Inventory

Australia. Industrial Chemicals Act (AICC), as amended : On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL) : All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI) : On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS) : On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC) : On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand : On the inventory, or in compliance with the inventory

**National regulatory information**

US. EPA CERCLA Hazardous Substances (40 CFR 302) : The following component(s) of this product is/are subject to release reporting under 40 CFR 302 when release exceeds the Reportable Quantity (RQ):

Reportable quantity: 1000 lbs  
: Potassium hydroxide 1310-58-3

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- SARA 302 Components** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
- SARA 313 Components** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
- SARA 311/312 Hazards** : Acute Health Hazard
- CERCLA Reportable Quantity** : 2703 lbs
- California Prop. 65** : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

- |                          |                       |           |
|--------------------------|-----------------------|-----------|
| <b>Massachusetts RTK</b> | : Potassium hydroxide | 1310-58-3 |
| <b>New Jersey RTK</b>    | : Potassium hydroxide | 1310-58-3 |
| <b>Pennsylvania RTK</b>  | : Potassium hydroxide | 1310-58-3 |

**SECTION 16. OTHER INFORMATION**

- |                 | <b>HMIS III</b> | <b>NFPA</b> |
|-----------------|-----------------|-------------|
| Health hazard   | : 3             | 3           |
| Flammability    | : 0             | 0           |
| Physical Hazard | : 0             |             |
| Instability     | :               | 0           |

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

**Further information**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information

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and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Previous Issue Date: 12/13/2016

Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group