

Potassium Hydroxide Liquid

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Substance name: Potassium Hydroxide
REACH Reg. No.: Not available.
CAS No.: 1310-58-3
EC No.: 71769-53-4

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Mainly used in alkaline batteries industry, high-class detergents and cosmetics. Industrial soaps, potassium chemicals, medicine intermediate, synthetic rubber, ABS resin, natural rubber latex, dyestuffs, zymolysis and food additive and so on.
Uses advised against: Not available.

1.3 Details of the supplier of the SDS

Company name (Manufacturer): Tianjin Yuanlong Chemical Industry Co., Ltd
Address: Room 605, Kangning Tower B, Xikang Ave., Heping District, Tianjin, China
Postcode: 300070
E-mail: info@yuanlongchem.com
Telephone: +86-22-23528561
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Emergency telephone number: +86-22-23528561

Section 2: Composition/information on ingredients

2.1 Substance information

Ingredients Name	CAS Number	TWA(mg/m3)	CEIL(mg/m3)	% By Weight or Volume
1) Potassium Hydroxide	1310-58-3	2	2	48
2) Water	7732-18-5			52

Section 3: Hazards identification

3.1 Most Important Hazards Information

White, Odorless Liquid. Causes burns to skin and eyes. Harmful if inhaled or swallowed. Corrosive, Hygroscopic.

3.2 Potential Acute Health Effects

Extremely hazardous in case of skin contact (corrosive, irritant), of eye contact (irritant), of ingestion, of inhalation. Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

3.3 Potential Chronic Health Effects

Extremely hazardous in case of skin contact (corrosive, irritant), of eye contact (irritant), of ingestion, of inhalation. Nonsensitizer for skin. Non-permeator by skin.

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

The substance is toxic to lungs, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated or prolonged inhalation of vapors may lead to chronic respiratory irritation.

3.3 Other hazards

No information available.

Section 4: First aid measures

4.1 Eye Contact

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Finish by rinsing thoroughly with running water to avoid a possible infection. Cold water may be used.

4.2 Skin Contact

If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical got on the victim's exposed skin, such as the hands : Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

4.3 Serious Skin Contact

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

4.4 Inhalation

Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

4.5 Serious Inhalation

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

4.6 Ingestion

Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

4.7 Serious Ingestion

Not available.

Section 5: Fire-fighting measures

Flammability of the Product	Non-flammable
Auto-Ignition Temperature	Not applicable
Flash Points	Not applicable
Flammable Limits	Not applicable
Products of Combustion	Not available.
Fire Hazards in Presence of Various Substances	Not applicable.

Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions	Not applicable.
Special Remarks on Fire Hazards	Not applicable.
Special Remarks on Explosion Hazards	Not applicable.

Section 6: Accidental release measures

6.1 Small Spill

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of acetic acid.

6.2 Large Spill

Corrosive liquid. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of acetic acid. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and storage

7.1 Precautions

Keep container dry. Do not ingest. Do not breathe gas/fumes/ vapour/spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as acids, moisture.

7.2 Storage

Alkalis may be stored in heavy duty gauge steel containers. Corrosive materials should be stored in a separate safety storage cabinet or room.

Section 8 : Exposure controls/personal protection

8.1 Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

8.2 Personal Protection

Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.

8.3 Personal Protection in Case of a Large Spill

Splash goggles. Full suit. Vapor and dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

8.4 Exposure Limits

Potassium hydroxide CEIL: 2 (mg/m³) from ACGIH Consult local authorities for acceptable exposure limits.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state and appearance:	Liquid
Odor:	Odorless.
Taste:	Alkaline. (Strong.)
Color:	Clear Colorless.
Molecular Weight:	56.11 g/mole
pH (1% soln/water):	Basic.
Boiling Point:	The lowest known value is 100°C (212°F) (Water).
Melting Point:	Not available.
Critical Temperature:	Not available.
Specific Gravity:	Weighted average: 1.34 (Water = 1)
Vapor Pressure:	The highest known value is 17.535 mm of Hg (@ 20°C) (Water).
Vapor Density:	The highest known value is 0.62 (Air = 1) (Water).
Volatility:	Not applicable.
Odor Threshold:	Not applicable.
Water/Oil Dist. Coeff.:	Not applicable.
Ionicity (in Water):	Not applicable.
Dispersion Properties:	See solubility in water.
Solubility:	Easily soluble in cold water

9.2 Other information

No data available.

Section 10: Stability and reactivity

10.1 Stability

The product is stable under normal conditions.

10.2 Instability Temperature

Not available..

10.3 Incompatibility with various substances

Extremely reactive or incompatible with acids.

10.4 Corrosivity

Extremely corrosive in presence of aluminum. Slightly corrosive to corrosive in presence of glass.

10.5 Special Remarks on Reactivity

Not available.

10.6 Special Remarks on Corrosivity

Not available.

10.7 Polymerization

No.

Section 11: Toxicological information

Routes of Entry:

Eye contact. Inhalation. Ingestion.

Toxicity to Animals:

Acute oral toxicity (LD50): 546 mg/kg (Rat) (Calculated value for the mixture).

Chronic Effects on Humans:

The substance is toxic to lungs, mucous membranes.

Other Toxic Effects on Humans:

Extremely hazardous in case of skin contact (corrosive, irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals:

Not available.

Special Remarks on Chronic Effects on Humans: Not available.
Special Remarks on other Toxic Effects on Humans: Not available.

Section 12: Ecological information

Ecotoxicity: Not available.
BOD5 and COD: Not available.
Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation: The products of degradation are as toxic as the original product.
Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal considerations

13.1 Waste Disposal

If this product becomes a waste it could meet the criteria of a hazardous waste as defined by the Resource Conservation Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste. Consult local, state, federal regulations for specific requirements. Harmful to aquatic life at low concentrations. Do not contaminate domestic or irrigation water supplies or bodies of water.

Section 14: Transport information

DOT Classification: Class 8: Corrosive material
Identification Potassium hydroxide, solution UN1814 Packing group: II
Special Provisions for Transport Not available.
DOT (Pictograms)



Section 15: Regulatory information

Other Regulations

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications

WHMIS (Canada)
DSCL (EEC)

E: Corrosive solid
R35- Causes severe burns
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.S28- After contact with skin, wash immediately with plenty of water.
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection. S38- In case of insufficient ventilation, wear suitable respiratory equipment.S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

HMIS (U.S.A.)

Health	3
Fire	0
Reactivity	0
Personal Protection	

National Fire Health Protection Association (U.S.A.)



Flammability
Reactivity
Specific hazard

WHMIS (Canada)(Pictograms):



DSCL (Europe)(Pictograms):



ADR (Europe)(Pictograms):



Protective Equipment:



Gloves.



Synthetic apron.



Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.



Splash goggles.

Section 16: Other information

16.1 Revision Information:

Date of the previous revision: Not applicable.

Date of this revision: 1/1/2024

Revision summary: The first new SDS

16.2 Declare to reader

The information in this Safety Data Sheet (SDS) was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable. According to REACH Article 31(5), the SDS shall be supplied in an official language of the Member State(s) where the substance or mixture is placed on the market, unless the recipient Member State(s) concerned provide otherwise. It should also be noted that this SDS is applicable to the countries with English as an official language.