MEDICAL CHEMICAL CORPORATION
SINCE 1954

SDS for 20 % Potassium Hydroxide with DMSO

Catalog # 765A

Creation date: 05-05-2015 **Revision date: 08-01-2024** **Revision number: 1.05**

Section I - Product Identification

Product: An aqueous solution of potassium hydroxide and dimethyl sulfoxide.

Intended Uses: Intended to be used to make wet mounts. Also used as a general laboratory reagent.

Uses advised against: For laboratory use only.

Country of origin: United States.

Manufacturer Identification

Medical Chemical Corp.
19430 Van Ness Ave.
Torrance, CA 90501

Customer Service: Phone (310)787-6800
Email. Customerservice@med-chem.com
FAX (310)787-4464

Emergency Telephone Number

CHEMTREC Emergency Response Telephone Number: (800)424-9300. Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure or accident. Please direct all other inquiries to our customer service phone number.

Section II - Hazard Identification

This item is considered hazardous by 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). Causes severe skin burns and eye damage on contact.

Eye damage/eye Irritation: Category 1a (H314). Causes severe skin burns and eye damage.
Acute toxicity (Oral): Category 4 (H302). Harmful if swallowed.
Acute toxicity (Dermal): Category 1 (H314). Danger: Causes severe skin burns and eye damage
Corrosive to Metals: Category 2 (H290). May be corrosive to metals.

Signal word: Danger

Hazard statements

According to the harmonized classification and labeling (CLP00) approved by the European Union, this substance causes severe skin burns and eye damage and is harmful if swallowed. Additionally, this substance may be corrosive to metals.

P102 Keep out of reach of children.
P220 Keep away from clothing and other combustible materials.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P317 If swallowed get immediate medical help.
P363 Wash contaminated clothing before reuse.
P405 Store locked up.
P501 Dispose of contents/container in accordance with all local, state and federal regulations.

Safety Ratings

Health: Hazardous *Flammability:* None *Reactivity*: None *Contact:* Slight
Recommended safety equipment: safety goggles, lab coat and proper gloves.

NFPA Ratings

Health = 3. Can cause serious or permanent injury.
Flammability = 0. Will not burn.
Reactivity = 1. Normally stable. High temperatures make unstable.

Potential Health Effects

Potassium Hydroxide is a strong alkalai that will cause severe tissue damage and severe ulcers on contact with skin or eyes.

Inhalation: Extremely corrosive to mucous membranes and other structures in the respiratory tract. Will cause pulmonary edema. Inhaling droplets of the solution will cause ulceration of the structures in the respiratory tract and can cause pulmonary edema.

Ingestion: Will cause severe burns to mouth, esophagus and stomach. Also causes nausea, vomiting, diarrhea, etc.

Skin contact: Will cause severe burns and ulceration.

Eye contact: Causes serious eye damage.

Chronic Exposure: Repeated or prolonged contact with skin will cause ulceration.

Aggravation of preexisting conditions: Unknown.

Section III - Composition/Information on Components

Ingredient	CAS#	EC/List No.	%
Potassium Hydroxide	1310-58-3	215-181-3	20% w/v
Dimethyl Sulfoxide	67-68-5	200-664-3	30% v/v

Section IV - First Aid Measures

Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance; this is irrespective of the recommendation involving the wearing of eye protection. Facilities for quickly drenching the body should be provided within the immediate work area for emergency use where there is a possibility of exposure.

Inhalation: Remove from source of exposure and get immediate medical attention.

Ingestion: Rinse mouth with water but do not induce vomiting. Get immediate medical attention.

Skin Contact: Remove contaminated clothing and launder before reuse. Rinse area with dilute vinegar (dilute acetic acid) and wash affected area with soap and water. Get medical advice if needed.

Eye Contact: Remove contact lenses if possible and rinse well with water. Get immediate medical attention.

Section V - Fire Fighting Measures

Fire: Not normally a fire hazard.

Explosion: Not normally an explosion hazard.

Fire Extinguishing Media: Dry chemical, CO2, alcohol-resistant foam or water spray.

Special information: Decomposes when heated to form corrosive vapors.

Section VI - Accidental Release Measures

Absorb with a suitable absorbent and store in a suitable container for disposal.

Section VII - Handling and Storage

P403+P233+P102; Store in a well-ventilated place. Keep container tightly closed. Keep out of reach of children. Store away from foodstuffs.

Section VIII - Exposure Control/Personal Protection

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Potassium Hydroxide	2 mg/m^3 (ceiling) TWA	2 mg/m^3 TWA	2 mg/m^3 ceiling
Dimethyl Sulfoxide	No Data	No Data	No Data

Legend

ACGIH: American Conference of Governmental Industrial Hygienists.
OSHA*:* Occupational Safety and Health Administration.
NIOSH: National Institute for Occupational Safety and Health.
IDLH: Immediately dangerous to life or health.

Ventilation System: Usually not required. When required, Refer to the ACGIH document, “Industrial Ventilation, a Manual of Recommended Practices” for details about ventilation.

Personal Respirator: Usually not required. In case of emergency, or when exposure levels are unknown, use a positive pressure, full face piece, air supplied respirator.

Skin protection: Protective gloves are required.

Eye Protection: Laboratory safety goggles or similar products are required.

Section IX - Physical and Chemical Properties

Appearance and Odor: A clear, colorless solution. The solution will darken as it ages.

Flash point: Not applicable.
Auto ignition temperature: Not applicable
Boiling point range: No data
Decomposition temperature: No data
Melting point: ~ 0 °C
pH: 14
Vapor pressure (mm Hg): 18 @ 20 °C
Viscosity: 0.01 poise
Flammable Limits: Not applicable.
Boiling Point: ~ 101 °C
Density: 1.14 g/ml @ 22.5 °C
Evaporation Rate (Water = 1): 1
Partition coefficient (*n*-Octanol/Water): No data
Solubility: Infinitely miscible with water
Vapor density (air = 1): 0.6
Volatile organic carbon (VOC): Not applicable

Section X - Stability and Reactivity

Stability: Stable under normal conditions.

Hazardous Decomposition Products: Reacts with metals to liberate hydrogen. DMSO can be converted by heat to the toxic dimethyl sulfate.

Hazardous polymerization: Will not occur.

Incompatibilities: Metals and acids.

Conditions to avoid: Excessive cold and heat

Section XI - Toxicological Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Potassium Hydroxide	284 mg/kg (Rat)	No Data	No Data
Dimethyl Sulfoxide	14.5 g/kg (Rat)	40 g/kg (Rat)	5.33 mg/l 4 h

Cancer lists

Ingredient	*Known Carcinogenicity?*	*NTP?*	*Anticipated?*	*IARC Category*
Potassium Hydroxide	No	No	No	None
Dimethyl Sulfoxide	No	No	No	None

Section XII - Ecological Information

This product is not expected to bioaccumulate. The product does not contain endocrine disrupters, persistent organic pollutants or ozone depleters.

Soil Mobility: Expected to be high.
Environmental Fate: Biodegradable
Environmental Toxicity: Large amounts can alter pH which is harmful to marine life.

Potassium hydroxide

Toxicity to freshwater fish (mosquito fish):LC50 = 80 mg/l, 96 h
Toxicity to invertebrates: No data
Toxicity to freshwater algae: No data

Dimethyl sulfoxide

Toxicity to fish (zebra fish):LC50 = 25000 mg/l, 96 h
Toxicity to invertebrates (water flea): EC50 24600 mg/l 48 h
Toxicity to freshwater algae (green algae): 17000 mg/l 72 h

Section XIII - Disposal Considerations

Local governments usually restrict the amounts of strong alkalais that may be flushed down the drain. Also, strong alkalais will corrode metal plumbing. Typically the pH of the sewage outflow from a building is restricted to less than 10. This would require the concentration of unneutralized potassium hydroxide in the effluent to be less than 10 mg/l. Dispose of contents and container in accordance with all government regulations.

Section XIV - Transportation Information

Bottles smaller than 32 Fl. Oz. are eligible to be shipped under limited quantity exemptions [49 CFR section 173.154(b) and 173.154(C)].

DOT
Shipping name: Potassium hydroxide solution. *Hazard Class*: 8 *Packing Group:* II
Hazard label: Corrosive *UN Number:* UN1814

IATA
Shipping name: Potassium hydroxide solution. *Hazard Class*: 8 *Packing Group:* II
Hazard label: Corrosive *UN Number:* UN1814

IMDG
Shipping name: Potassium hydroxide solution. *Hazard Class*: 8 *Packing Group:* II
Hazard label: Corrosive *UN Number:* UN1814 EMS-No: F-A, S-B

Section XV - Regulatory Information

Chemical Inventory Status

Ingredient	*TSCA*	*EC*
Potassium Hydroxide	Yes	Yes
Dimethyl Sulfoxide	Yes	Yes

Federal, State and International Regulations

	SARA 302		*SARA 313*		*RCRA*	*TSCA*	
Ingredient	*RQ*	*TPQ*	*List*	*Category*	*261.33*	*8(D)*	*Ca. Prop 65*
Potassium Hydroxide	No	No	No	No	No	No	No
Dimethyl Sulfoxide	No	No	No	No	No	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No

SARA 311/312

Acute:	Yes
Chronic:	No
Fire:	No
Pressure:	No

Section XVI - Other Information

This information is believed to be correct at the time of publication but is not guaranteed as such, nor does it purport to be all inclusive. Medical Chemical Corp. assumes no liability for the accuracy or completeness of the information. The user assumes all responsibility for compliance with federal, state and local laws.

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