


# Safety Data Sheet

This Safety Data Sheet is valid for all concentrations of potassium hydroxide solution **without** DMSO.

Section 1. Identification	
Product Identification and Item Numbers:	Potassium Hydroxide, 10% solution (KOH/10/1, KOH/10/2) Potassium Hydroxide, 20% solution (KOH/20/1, KOH/20/2)
Product Description:	Potassium Hydroxide, 10% solution, in Purified Water Potassium Hydroxide, 20% solution, in Purified Water
Recommended use and restrictions on use:	N/A
Supplier:	Delasco 608 13 <sup>th</sup> Avenue Council Bluffs, IA 51501 1-712-323-3269 <a href="http://www.delasco.com">www.delasco.com</a> <a href="mailto:questions@delasco.com">questions@delasco.com</a>
In Case of Emergency, Contact:	Chemtrec (24 hour) 1-800-424-9300

Section 2. Hazard(s) Identification	
Classification:	Acute toxicity, Oral (Category 4) Eye irritation (Category 2) Metal corrosion (Category 1) Skin corrosion (Category 1A) Skin irritation (Category 2)
Labeling:	
Hazard symbol(s):	 GHS05: corrosion
Signal word:	<b>Danger!</b>
Hazard statements:	H290: May be corrosive to metals. H302: Harmful if swallowed. H314: Causes severe skin burns and eye damage.
Precautionary statements:	P260: Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention. P303 + P361 + P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water. P310: Immediately call a POISON CENTER or doctor/ physician. P280: Wear protective gloves and eye and face protection.

<b>Section 3. Composition/Information on Ingredients</b>		
<b>Chemical Name and Concentration:</b>	Potassium Hydroxide Water	Concentration: 8% - 20% Concentration: 80% - 92%
<b>Other Names, Common Names, Synonyms:</b>	Caustic potash - liquid or solutions; Potassium hydrate	
<b>CAS Number, other unique identifiers:</b>	Mixture: Potassium Hydroxide Water	CAS# 1310-58-3 CAS# 7732-18-5
<b>Other classified impurities or stabilizers:</b>	N/A	
<b>Other ingredients posing health hazards:</b>	N/A	
<b>Concentration of other hazardous ingredients:</b>	N/A	

<b>Section 4. First-aid Measures</b>	
<b>Inhalation exposure:</b>	Remove person to fresh air. Seek medical attention. Give oxygen or artificial respiration as needed.
<b>Skin exposure:</b>	Get medical aid. Wash off with soap and plenty of water immediately while removing contaminated clothing/shoes.
<b>Eye contact:</b>	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Continue rinsing eyes during transport to hospital.
<b>Ingestion:</b>	NEVER give anything by mouth to an unconscious person. If vomiting does occur, have victim lean forward to prevent aspiration. Rinse mouth with water. Immediately have victim drink several glasses of water to dilute. Seek medical attention.

<b>Section 5. Fire Fighting Measures</b>											
<b>Suitable / unsuitable extinguishing media:</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.										
<b>Specific hazards / combustion products:</b>	Under fire conditions, potassium oxides may be produced.										
<b>Special protective equipment and precautions for fire-fighters:</b>	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Keep unopened containers cool by spraying with water.										
<b>NFPA Hazard Classification</b>	<table> <tr> <td>Health – 3</td> <td>0-Minimal</td> </tr> <tr> <td>Flammability – 0</td> <td>1-Slight</td> </tr> <tr> <td>Instability – 0</td> <td>2-Moderate</td> </tr> <tr> <td></td> <td>3-Serious</td> </tr> <tr> <td></td> <td>4-Severe</td> </tr> </table>	Health – 3	0-Minimal	Flammability – 0	1-Slight	Instability – 0	2-Moderate		3-Serious		4-Severe
Health – 3	0-Minimal										
Flammability – 0	1-Slight										
Instability – 0	2-Moderate										
	3-Serious										
	4-Severe										

<b>Section 6. Accidental Release Measures</b>	
<b>Personal precautions and protective equipment:</b>	Use personal protective equipment. Avoid the inhalation of vapors, mist, dust, or gas. Confirm adequate ventilation prior to use of product. Remove personnel from the area. Do not touch damaged containers or spilled material unless wearing chemical protective clothing. Stop leak if you can do it without risk.
<b>Environmental Precautions:</b>	Prevent entry into drains, waterways, and sewers.
<b>Containment / clean up methods:</b>	Absorb with an inert dry material and place in an appropriate waste disposal container. Keep disposal containers closed when finished. Dispose as hazardous waste.

<b>Section 7. Handling and Storage</b>	
<b>Precautions for safe handling:</b>	Do not get on skin or in eyes. Do not inhale vapor or mist. Take normal fire prevention measures. Provide sufficient air exchange and/or exhaust in work rooms. Handle and open container with care.
<b>Conditions for safe storage:</b>	Take normal fire prevention measures. Keep containers tightly closed in a dry, cool and well-ventilated place.
<b>Incompatibilities to avoid:</b>	Take normal fire prevention measures.

<b>Section 8. Exposure Controls and Personal Protection</b>	
<b>OSHA Permissible Exposure Limit (PEL):</b>	Not available
<b>Threshold Limit Value (TLV):</b>	Not available
<b>Other exposure limits:</b>	(NIOSH) Ceiling: 2 mg/m <sup>3</sup> (NIOSH Recommended Exposure Limit) (ACGIH) Ceiling 2 mg/m <sup>3</sup> (ACGIH Threshold Limit Value)
<b>Engineering controls:</b>	Use fume hood or other means of adequate ventilation. Electrical equipment should be grounded and conform to applicable electrical code.
<b>Personal protective equipment:</b>	<p><b>Respiratory Protection</b> Use adequate ventilation, such as a fume hood. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).</p> <p><b>Eye Protection</b> Use chemical safety goggles and/or a full face shield where splashing is possible. Use equipment approved by appropriate government standards, such as NIOSH (US) or EN166 (EU). Maintain eye wash fountain and quick-drench facilities in work area.</p> <p><b>Skin Protection</b> Wear impervious protective clothing, including footwear, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Inspect gloves prior to use. Avoid skin contact when removing gloves. Wash and dry hands.</p>
<b>Other personal protection measures:</b>	Provide nearby eyewash station and safety shower.

<b>Section 9. Physical and Chemical Properties</b>	
<b>Appearance (physical state, color, etc.):</b>	Clear, colorless solution with characteristic odor.
<b>Odor:</b>	Characteristic odor
<b>Odor threshold:</b>	Data not available
<b>pH:</b>	Alkaline
<b>Melting point / freezing point:</b>	Data not available for solutions of potassium hydroxide.
<b>Initial boiling point and boiling range:</b>	Data not available for solutions of potassium hydroxide.
<b>Flash point:</b>	Data not available for solutions of potassium hydroxide.
<b>Evaporation rate:</b>	Data not available for solutions of potassium hydroxide.
<b>Flammability</b>	Not flammable or combustible.
<b>Upper / lower flammability or explosive limits:</b>	Data not available for solutions of potassium hydroxide.
<b>Vapor Pressure:</b>	Data not available for solutions of potassium hydroxide.
<b>Vapor density:</b>	Data not available for solutions of potassium hydroxide.
<b>Relative density:</b>	Data not available for solutions of potassium hydroxide.
<b>Solubility:</b>	Soluble in water.
<b>Partition coefficient: n-octanol/water:</b>	Data not available for solutions of potassium hydroxide.
<b>Auto-ignition temperature:</b>	Data not available for solutions of potassium hydroxide.
<b>Decomposition temperature:</b>	Data not available for solutions of potassium hydroxide.
<b>Viscosity:</b>	Data not available for solutions of potassium hydroxide.

<b>Section 10. Stability and Reactivity</b>	
<b>Chemical stability:</b>	The product is stable under normal storage conditions.
<b>Possibility of hazardous reactions:</b>	Data not available for solutions of potassium hydroxide.
<b>Conditions to avoid (static, shock, vibration...)</b>	Data not available for solutions of potassium hydroxide.
<b>Incompatible materials:</b>	Strong oxidizing agents.
<b>Hazardous decomposition products:</b>	Under fire conditions, potassium oxides may be produced.

<b>Section 11. Toxicological Information</b>	
<b>Routes of exposure:</b>	Skin, eyes, inhalation, Ingestion
<b>Acute Symptoms (acute):</b>	<ul style="list-style-type: none"> <li>Inhalation: Respiratory tract irritant. Can cause serious burns on acute contact. Severe injury is usually avoided by the self-limiting coughing and sneezing symptoms.</li> <li>Eye Contact: Irritant, possibly corrosive to eye tissues. Can cause severe eye damage.</li> <li>Skin Contact: Can cause rapid corrosion of skin and severe skin burns.</li> <li>Ingestion: Toxic! Corrosive to mucous membranes and may cause perforation of the esophagus and stomach. Abdominal pain, nausea, vomiting, and overall gastrointestinal upset can be expected.</li> </ul>
<b>Symptoms (chronic): Chronic effects from short and long term exposure:</b>	<ul style="list-style-type: none"> <li>Skin: Development of a defatting dermatitis on prolonged contact with potassium hydroxide has been reported.</li> <li>Inhalation: Continued irritation may lead to increased susceptibility to respiratory illness.</li> <li>Ingestion: Data not available</li> </ul>
<b>Numerical measures of toxicity (e.g., acute toxicity estimates):</b>	LC50: Data not available LD50: Data not available
<b>NTP carcinogen:</b>	Not identified
<b>EPA carcinogen:</b>	Not available
<b>ACGIH carcinogen:</b>	Not identified
<b>IARC potential carcinogen:</b>	Not identified
<b>OSHA carcinogen:</b>	Not identified

<b>Section 12. Ecological Information (Non-mandatory)</b>	
<b>Ecotoxicity (aquatic and terrestrial, where available):</b>	Toxicity to fish <ul style="list-style-type: none"> <li>LC50 / 96 hours Mosquito Fish - 80 mg/L</li> </ul>
<b>Persistence and degradability:</b>	Not available
<b>Bioaccumulative potential:</b>	Not available
<b>Mobility in soil:</b>	Not available
<b>Other adverse effects:</b>	Not available

<b>Section 13. Disposal Considerations (Non-mandatory)</b>	
<b>Safe methods of disposal:</b>	Contact a licensed professional waste disposal service. Observe all federal, state, and local environmental regulations.

<b>Section 14. Transport Information (Non-mandatory)</b>						
US DOT	UN number:	UN1814	Class:	8	Packing Group:	II
<b>UN proper shipping name:</b>			Potassium Hydroxide, Solution			
<b>Packing group, if applicable:</b>			PG: II			
<b>Environmental hazards (marine pollutant, etc...)</b>			N/A			
<b>Special transport precautions:</b>			N/A			

<b>Section 15. Regulatory Information (Non-mandatory)</b>	
<b>Specific safety, health, and environmental regulations:</b>	N/A

<b>Section 16. Other information</b>	
<b>Date of preparation or last revision:</b>	January 27, 2015