



**SILVER FERN**  
CHEMICAL INC

# SILVER FERN CHEMICAL, INC.

## CAUSTIC POTASH 45%

### SAFETY DATA SHEET

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#### 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Caustic Potash 45%

Description: Potassium Hydroxide 45% Solution

Suggested Use: N/A

Restrictions on Use: N/A

Supplier: Silver Fern Chemical, Inc.  
2226 Queen Anne Ave. S.  
Seattle, WA 98109

Customer Service: 206-282-3376 or 866-282-3384  
info@silverfernchemical.com; www.silverfernchemical.com

Emergency Phone: **INFOTRAC :1-800-535-5053**  
**Outside USA & Canada: 1-352-323-3500**

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#### 2. HAZARDS IDENTIFICATION

##### Classification

GHS Classification: Skin Corrosion (Category 1A)  
Serious Eye Damage (Category 1)  
Acute Toxicity, Oral (Category 4)  
Acute Aquatic Toxicity (Category 3)

##### GHS Label Elements

Pictogram:



Signal Word:

Danger

Hazard Statements:

H314: Causes severe skin burns and eye damage  
H302: Harmful if swallowed  
H402: Harmful to aquatic life

Precautionary Statements:

P234: Keep only in original container.  
P260: Do not breathe dust/fumes/gas/mist/vapors/spray.  
P264: Wash hands thoroughly after handling.  
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P303+P361+P353+P313: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical advice/attention.  
P305+P351+P338+P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor/physician.  
P362: Take off contaminated clothing and wash before reuse.  
P390: Absorb spillage to prevent material damage.  
P404+P405: Store in a closed container. Store locked up.

## SAFETY DATA SHEET

Version 1.1  
Effective Date: 11/30/15

P501: Dispose of contents and container in accordance with all local, regional, national, and international regulations.

HMIS Classification: Health Hazard: 3  
Flammability: 0  
Physical Hazards: 1

NFPA Rating: Health Hazard: 3  
Fire: 0  
Reactivity Hazard: 0

### Potential Health Effects

Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membrane and upper respiratory tract.  
Skin: May be harmful if absorbed through skin. Causes severe skin burns.  
Eyes: Causes severe eye burns.  
Ingestion: Toxic if swallowed. Do not ingest.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS Number</u>	<u>Concentration</u>
Potassium Hydroxide	1310-58-3	45%
Water	7732-18-5	55%
Synonyms:	Caustic Potash, KOH	

### 4. FIRST AID MEASURES

If Inhaled: If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.  
Skin Contact: Take off contaminated clothing and shoes immediately. Flush skin with plenty of water for at least fifteen minutes. Consult a physician.  
Eye Contact: Flush eyes with plenty of water for at least 15 minutes and consult a physician. Remove contact lenses if able to do so. Continue rinsing eyes during transport to hospital.  
If Ingested: Do NOT induce vomiting unless instructed to do so by a physician. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 5. FIREFIGHTING MEASURES

Flammability Overview: Considered a non-flammable water solution  
Flash Point: N/A  
Extinguishing Media: Use water-spray, alcohol-resistant foam, dry chemical, or carbon dioxide. Tailor extinguishing media to surrounding fire.  
Special Protective Equipment for Firefighters: Wear a self-contained breathing apparatus (SCBA) for firefighting if necessary.

Hazardous Combustion Products: Hazardous decomposition products under fire conditions: Potassium oxides.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** Use personal protective equipment. Avoid breathing vapors, mist, or gas. Always ensure adequate ventilation. Evacuate personnel to safe areas.

**Environmental Precautions:** Prevent further leakage or spillage if safe to do so. Prevent from entering drains and waterways. Discharge into the environment must be avoided.

**Containment and Clean Up:** Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal. If assistance is needed call INFOTRAC or emergency services.

**7. HANDLING AND STORAGE**

**Safe Handling:** Use personal protective equipment. Avoid breathing vapors, mist, or gas. Always ensure adequate ventilation.

**Safe Storage:** Keep containers tightly closed in a dry well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store away from incompatible materials.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Exposure Limits**

Component	CAS Number	Exposure Limit	Basis
Potassium Hydroxide	1310-58-3	2 mg/m <sup>3</sup>	ACGIH Threshold Value (TLV)
		2 mg/m <sup>3</sup>	OSHA Table Z-1: Limits for Air Contaminants
		2 mg/m <sup>3</sup>	NIOSH Recommended Exposure Limits

**Personal Protective Equipment**

**Eye Protection:** Wear tightly fitting safety goggles or safety glasses with a full-face shield. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH. Have eye-wash stations available where eye contact can occur.

**Hand Protection:** Handle with chemical-resistant gloves. Gloves must be inspected prior to use. Dispose of contaminated gloves. Wash and dry hands after use.

**Skin Protection:** Wear complete suit protection against chemicals, including chemical-resistant boots. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Safety showers should be located in the work area where skin contact can occur.

**Respiratory Protection:** Where risk assessment shows air-purifying respirators are appropriate, use a NIOSH-approved full-face respirator with appropriate cartridges. For high concentrations, unknown concentrations, and for oxygen deficient atmospheres, use a NIOSH approved air-supplied respirator. Respiratory protection may be needed for non-

routine or emergency situations. Respiratory protection must be provided in accordance with OSHA 29 CFR 1910.134.

General Controls: Always ensure adequate ventilation and that working areas contain safety showers and eye wash stations. Handle material in accordance with good industrial hygiene and safety practices.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical State: Liquid  
Color: Colorless  
Odor: None  
Odor Threshold: N/A  
pH: 14.0  
Melting/Freezing Point: <10°C (50°F)  
Boiling Point: >121°C (250°F)  
Flash Point: N/A  
Evaporation Rate: N/A  
Flammability (solid, gas): N/A  
Flammability/Explosion Limits: N/A  
Vapor Pressure @ 20°C: <24 hPa (<18 mmHg)  
Vapor Density: >1 (air=1)  
Specific Gravity: 1.46  
Density: 12.16 lbs/gal  
Solubility in Water: Complete  
Partition Coefficient: N/A  
Autoignition Temperature: N/A  
Decomposition Temperature: N/A  
Viscosity: 8 cPs

**10. STABILITY AND REACTIVITY**

Chemical Stability: Stable under recommended storage conditions.

Conditions and Materials to Avoid: Avoid Water, acids, strong oxidizing agents, most metals, Aluminum, Lead, Tin, Zinc

Hazardous Decomposition Products: Hazardous decomposition products under fire conditions: Potassium oxides.

**11. TOXICOLOGICAL INFORMATION****Acute Toxicity**

Component	CAS Number	Test	Toxicity
Potassium Hydroxide	1310-58-3	Oral LD50 (Rat)	273 mg/kg
		Skin - Draize (Rabbit)	50 mg (24 hr) – Severe skin irritation
		Inhalation LC50	No data available

**Potential Health Effects**

Inhalation:	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membrane and upper respiratory tract.
Skin:	May be harmful if absorbed through skin. Causes severe skin burns.
Eyes:	Causes severe eye burns.
Ingestion:	Toxic if swallowed. Do not ingest.
Signs and Symptoms of Exposure:	Burning sensation. Nausea. Cough. Wheezing. Laryngitis. Shortness of breath. Spasm, inflammation, and edema of the larynx. Spasm, inflammation, and edema of the bronchi. Pneumonitis. Pulmonary edema. Material is extremely destructive to the tissue of the mucous membrane, upper respiratory tract, eyes, and skin. Headache.
Chronic Effects of Long-term Exposure:	No data available
Carcinogenicity:	No component of this product at levels greater than 0.1% is identified as carcinogenic by IARC, ACGIH, or OSHA.

**12. ECOLOGICAL INFORMATION****Acute Ecotoxicity**

Component	CAS Number	Organism	Ecotoxicity
Potassium Hydroxide	1310-58-3	Mosquito fish	24 hr LC50 = 80mg/L

**Ecological Effects**

Persistence and Degradability:	No data available
Bioaccumulation Potential:	Not expected to bio-accumulate
Mobility in Soil:	No data available
Other Adverse Effects:	Harmful to aquatic life. The damaging effects are mostly the consequence of the increase in pH of the water.

**13. DISPOSAL CONSIDERATIONS**

Disposal:	Surplus and non-recyclable material should be treated as hazardous waste and be disposed of by a licensed disposal company. Material should be disposed in accordance with all local, state, and federal regulations. Regulations vary by region. Do not release into sewers or waterways.
Contaminated Packaging:	Dispose of as unused product.

**14. TRANSPORT INFORMATION****DOT Information**

Proper Shipping Name: Potassium Hydroxide Solution  
UN Number: UN1814  
Hazard Class: 8  
Packing Group: PGII

Reportable Quantity (RQ): 2200 lbs (Potassium Hydroxide: 1000lbs)

Marine Pollutant: No

Note: Regulated for both bulk and non-bulk.

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**15. REGULATORY INFORMATION****US Federal**

SARA 302 Components: None Listed  
SARA 311/312 Hazards: Acute Health Hazard  
SARA 313 Components: None Listed

TSCA Inventory: Potassium Hydroxide (CAS 1310-58-3)

**European Union**

EC Inventory: Potassium Hydroxide (EINECS 215-181-3)

**State Regulations**

CA Proposition 65: This product does not contain any listed chemicals.

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**16. OTHER INFORMATION**

SDS Version: 1.2  
Revision Date: 11/30/2015  
Supersedes: 02/10/2014

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