

## SECTION 1. IDENTIFICATION OF SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### Product Identifier:

**Product or Trade Name:** ProTEK® 100

**Type of Product:** Solution containing Potassium Hydroxide, ~45% (w/w), Technical Grade

### Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:

**Recommended Use(s)\*:** Water conditioner, Water softener, Excavation support fluid conditioner, Drilling fluid conditioner

\* The "Recommended Use" identified for this product is provided solely to comply with a US Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

**Use Patterns:** Professional Use Only

**Recommended Restrictions:** No restrictions on use known.

### Details of the Supplier of the Substance/Mixture and Safety Data Sheet:

**Manufacturer/Supplier:** KB International LLC

735 Broad Street  
Suite 209  
Chattanooga, TN 37402  
USA

**Telephone number:** +1 (423) 266-6964

**E-mail:** [info@kbtech.com](mailto:info@kbtech.com)

### Emergency Contact and Telephone Number:

**Emergency Contact:** ChemTel, Inc.

**Emergency Telephone No.:** +1 (800) 255-3924

## SECTION 2. HAZARDS IDENTIFICATION

### Classification of the Substance or Mixture (in accordance with OSHA HCS 29 CFR 1910.1200)

### GHS Label Elements, Including Precautionary Statements:

#### Hazard Classification(s):

##### Health Hazard(s):

Corrosive to Metals:	Category 1
Acute Toxicity, Oral:	Category 4
Skin Corrosion/Irritation:	Category 1B
Serious Eye Damage / Eye Irritation:	Category 1

##### Environmental Hazard(s):

Hazardous to the Aquatic Environment, Acute Hazard: Category 3

*For the full text of the H-Statements mentioned in this Section, see Section 16.*

**OSHA Defined Hazards:** Not classified.

### GHS Label Elements:

#### Hazard Pictogram(s):



**Signal Word(s):** DANGER!

**Hazard Statement(s):****Physical:**

H290 May be corrosive to metals.

**Health:**

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

**Environmental:**

H402 Harmful to aquatic life.

**Precautionary Statement(s):****Prevention:**

P234 Keep only in original container.

P251 Do not pierce or burn, even after use.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/clothing and eye/face protection.

**Response:**

P301 + 312 + 330 + 331 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting.

P305 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P333 + 313 If skin irritation or a rash occurs: Get medical advice/attention.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

P305 + 351 + 338 + 310 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 or doctor/physician.

P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material damage.

**Storage:**

P406 Store in corrosive resistant container with a resistant inner liner.

P405 Store locked up.

**Disposal:**

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Other Hazards:****Hazards Not Otherwise Classified (HNOC) or Not Covered by GHS:**

Contact with most metals will generate flammable hydrogen gas. Contact with water gives off heat. Burning produces obnoxious and toxic fumes. Chronic skin contact with low concentrations may cause dermatitis.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS****Components of Substance or Mixture:**

**Type of Product:** Solution containing Potassium Hydroxide, ~45% (w/w), Technical Grade

**Synonyms:** Potash liquor, caustic potash, potassium lye, potassium hydrate.

**Formula:** KOH (in aqueous solution)

**Chemical Family:** Alkali

Chemical Name	Formula	CAS #	Mol. Weight	WHMIS	EINECS No. / REACH Registration	Concentration (%)
Water	H <sub>2</sub> O	7732-18-5	18.01 g/mol	D1B, E	231-791-2	≈ 55.00 %
Potassium Hydroxide	KOH	1310-58-3	56.10 g/mol			≈ 45.00 %

## SECTION 4. FIRST-AID MEASURES

### Description of First Aid Measures:

- Ingestion:** Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Have victim rinse mouth with water, then give one to two glasses of water to drink. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Seek immediate medical attention/advice.
- Inhalation:** Immediately remove person to fresh air. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing has stopped, give artificial respiration. Seek immediate medical attention/advice.
- Skin Contact:** Wear appropriate protective equipment. Remove/Take off immediately all contaminated clothing. Immediately flush skin with gently flowing, running water for at least 20 minutes. Do not rub area of contact. Obtain medical attention immediately. Wash contaminated clothing before reuse. Contaminated leather may require disposal.
- Eye Contact:** Wear appropriate protective equipment. Protect unharmed eye. If in contact with eyes, immediately flush eyes with running water for at least 20 minutes. If contact lens is present, DO NOT delay flushing or attempt to remove the lens until flushing is done. Obtain medical attention immediately.
- General:** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Wash contaminated clothing before reuse.

### Most Important Symptoms and Effects, Both Acute and Delayed:

Toxic if swallowed. Harmful in contact with skin. Causes severe skin irritation. Symptoms may include redness, blistering, pain and swelling. Causes serious eye damage. Symptoms may include severe pain, blurred vision, redness and corrosive damage. May cause respiratory irritation. Symptoms may include coughing, choking and wheezing. Could result in pulmonary edema (fluid accumulation). Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed. Ingestion may cause severe burns to the mucous membranes of the digestive tract. Symptoms may include abdominal pain, vomiting, burns, perforations and bleeding.

### Indication of Any Immediate Medical Attention and Special Treatment Needed:

Immediate medical attention is required. Causes chemical burns. Treat symptomatically.

## SECTION 5. FIRE-FIGHTING MEASURES

### Extinguishing Media:

#### *Suitable Extinguishing Media:*

Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical. May react with water. Use water spray with caution.

#### *Unsuitable Extinguishing Media:*

Use water spray with caution. Do not use a solid water stream as it may scatter and spread fire.

### Special Hazards Arising from the Substance or Mixture / Conditions of Flammability:

Not considered flammable. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. May decompose upon heating to produce corrosive and/or toxic fumes. Not combustible, however the product can react with metals such as aluminum, tin, zinc to form flammable and explosive hydrogen gas.

### Flammability Classification (OSHA 29 CFR 1910.106):

Not flammable.

### Auto Ignition Temp:

Non-combustible.

**Special Protective Equipment and Precautions for Firefighters:****Protective Equipment for Firefighters:**

Fire fighters should enter the area only if they are protected from all contact with the material. Full protective clothing, including SCBA or self-contained breathing apparatus, coat, pants, gloves, boots and bands around legs, arms, and waist, should be worn. No skin surface should be exposed.

**Special Fire-Fighting Procedures:**

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Use water to cool fire-exposed containers. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply or any natural waterway. Dike for water control.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****Personal Precautions, Protective Equipment and Emergency Procedures:**

Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus when appropriate. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

**Environmental Precautions:**

Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply. Do not discharge into drains, water courses or onto the ground.

**SECTION 7. HANDLING AND STORAGE****Methods and Material for Containment and Cleaning Up:**

Ventilate area of release. Stop the spill at source if it is safe to do so. Dike for water control. Dilute acid with water and neutralize with Sodium Carbonate (soda ash) or lime. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g., sand, vermiculite, diatomaceous earth), then place absorbent material into an appropriate container for later disposal (see Section 13). Notify the appropriate authorities as required. Neutralization products, both liquid and solid, must be recovered for disposal. Finally, flush area with water.

**Special Spill Response Procedures:**

If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802).

**US CERCLA Reportable quantity (RQ): Potassium hydroxide (1000 lbs / 454 kg). Precautions for Safe Handling:**

Wear protective gloves/clothing and eye/face protection. Use only in well-ventilated areas. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment. Do not breathe fumes or mists. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Keep away from heat and flame. Keep away from incompatibles. May react with water, generating heat. When diluting, always add the product to water. Never add water to the product. When mixing with water, stir small amounts in slowly. Use cold water to prevent excessive heat generation. The addition of caustic soda to liquid will cause a rise in temperature. Keep containers tightly closed when not in use. Empty containers retain residue (liquid and/or vapor) and can be dangerous.

**Conditions for Safe Storage:**

Keep container tightly closed. Store locked up. Store in a cool, dry, well-ventilated place. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Storage class (TRGS 510): Non-combustible, corrosive hazardous materials. Store in corrosive resistant container with a resistant inner liner. Store away from incompatible materials (See Section 10). Incompatible materials include, but are not limited to strongly acidic and alkaline materials as well as oxidizers. Take care of instructions on label. Protect from heat and direct sunlight. Store at temperatures not exceeding 40°C/104°F. Compatible storage materials may include, but not be limited to, the following: nickel and nickel alloys, steel, plastics, plastic or rubber-lined steel, FRP, or Derakane vinyl ester resin. Unsuitable storage materials include, but not limited to aluminum. Do not allow material to freeze.

**Incompatible Materials:**

Acids; Water; Metals (e.g., tin, aluminum, zinc and alloys containing these metals); Halogenated compounds; Nitrogen compounds.

**Specific End Use(s):**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

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

**Exposure Limits:**

Chemical Name	ACGIH TLV		OSHA PEL	
	TWA	STEL	PEL	STEL
Potassium hydroxide	2mg/m <sup>3</sup> (Ceiling)	N/Av	2mg/m <sup>3</sup> (Ceiling)	N/Av
<b>Remarks:</b>	Upper Respiratory Tract irritation Eye irritation Skin irritation		Upper Respiratory Tract irritation Eye irritation Skin irritation	
Water	N/Av	N/Av	N/Av	N/Av

**Exposure Controls:**

**Appropriate Engineering Controls:**

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use only in well-ventilated areas. Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Respiratory Protection:**

Respiratory protection is required if the concentrations exceed the TLV. NIOSH-approved respirators are recommended. A self contained breathing apparatus should be used in emergency situations or instances where exposure levels are not known. Seek advice from respiratory protection specialists. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02.

**Skin Protection:**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Unsuitable material: polyvinyl alcohol. Wear chemically protective gloves (impervious), boots, aprons, and gauntlets to prevent prolonged or repeated skin contact.

**Full Contact:**

- Material:** Nitrile rubber
- Minimum Layer Thickness:** 0.11 mm
- Break Through Time:** 480 min
- Material Tested:** Dermatril® (KCL 740 / Aldrich Z677272, Size M)

**Splash Contact:**

- Material:** Nitrile rubber
- Minimum Layer Thickness:** 0.11 mm
- Break Through Time:** 480 min
- Material Tested:** Dermatril® ( KCL 740 / Aldrich Z677272, Size M)

**Data Source:**

KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374  
 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Body Protection:**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Eye / Face Protection:**

Tightly fitting safety goggles. Face-shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Other Protective Equipment:**

An eyewash station and safety shower should be made available in the immediate working area. Other equipment may be required depending on workplace standards.

**General Hygiene Considerations:**

Do not breathe fumes or mists. Do not ingest. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or use cosmetics while working with this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES****Information on Basic Physical and Chemical Properties:****Appearance:**

<b>Physical State:</b>	Liquid.
<b>Form:</b>	Liquid.
<b>Color:</b>	Clear to slightly hazy.

**Odor:** Odorless.

**Odor Threshold (ppm):** N/Ap

**Molecular Formula:** KOH

**Molecular Weight:** 56.1 g/mol

**Specific Gravity (water = 1):** 45% KOH Solution: 1.457 at 15.6°C (60°F) – 50% KOH Solution: 1.516 at 15.6°C (60°F)

**Density Liquid (lbs/gal):** 45% KOH Solution: 12.2 lbs/gal – 50% KOH Solution: 12.5 lbs/gal

**pH (Value):** Alkaline 13.5 - 14.0 (0.5% Solution)

**Melting/Freezing Point:** 45% KOH Solution: -28.8°C (-20°F) – 50% KOH Solution: 8.9°C (48°F)

**Initial Boiling Point:** 45% KOH Solution: 132.2°C (270°F) – 50% KOH Solution: 143.3°C (290°F)

**Flash Point (°C) [Closed cup]:** N/Ap

**Evaporation Rate:** N/Ap

**Flammability (solid, gas):** N/Ap

**Oxidizing Properties:** N/Ap

**Explosive Properties:** Not explosive.

**Vapor Pressure (mm Hg):** 45% KOH Solution: 39mm Hg at 140°F (60°C) – 50% KOH Solution: 27 mm Hg at 140°F (60°C)

**Vapor Density (Air=1):** N/Av

**Relative Density (g/ml):** 1.45

**Solubility (Water):** Very soluble.

**Solubility (Other):** N/Av.

**Partition Coefficient:**

*n-octanol/water or Coefficient*

*of water/oil distribution:* N/Ap (dissociates)

**Auto-ignition Point (°C):** N/Ap

**Decomposition Temperature (°C):** N/Av

**Viscosity (mPa.s):** N/Av

**Volatiles (% by weight):** N/Av.

**Volatile Organic Compounds (VOC's):** N/Av

**Absolute Pressure of Container:** N/Ap

**Flame Projection Length:** N/Av

**Other Physical/Chemical Comments:** None known or reported by the manufacturer.

(N/Av – Not Available      N/Ap – Not Applicable)

**SECTION 10. STABILITY AND REACTIVITY****Reactivity:**

Stable under normal conditions of use and storage.

**Chemical Stability:**

Material is stable under normal conditions.

**Possibility of Hazardous Reactions:**

Hazardous polymerization does not occur.

**Conditions to Avoid:**

No data available.

**Incompatible Materials:**

Water, Light metals, Alkali metals, Metals, Organic materials, Copper, reacts violently with, vigorous reaction with: Halogens, Nitro compounds, Magnesium, Azides, Contact with aluminum, tin and zinc liberates hydrogen gas. Contact with nitromethane and other similar nitro compounds causes formation of shock-sensitive salts.

**Hazardous Decomposition Products:**

Other decomposition products - No data available In the event of fire: see section 5.

**SECTION 11. TOXICOLOGICAL INFORMATION****Information on Likely Routes of Exposure:**

<b>Routes of Entry Inhalation:</b>	Yes
<b>Routes of Entry Skin &amp; Eye:</b>	Yes
<b>Routes of Entry Ingestion:</b>	Yes
<b>Routes of Exposure Skin Absorption:</b>	No

**Potential Health Effects:****Signs and Symptoms of Short-term (Acute) Exposure:*****Sign and Symptoms Inhalation:***

May cause severe irritation to the nose, throat and respiratory tract. Symptoms may include coughing, choking and wheezing. Could result in pulmonary edema (fluid accumulation). Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed.

***Sign and Symptoms Ingestion:***

Toxic if swallowed. May cause severe irritation and corrosive damage in the mouth, throat and stomach. Symptoms may include abdominal pain, vomiting, burns, perforations, bleeding and eventually death.

***Sign and Symptoms Skin:***

Harmful in contact with skin. Causes severe skin burns and eye damage. Symptoms may include redness, blistering, pain and swelling.

***Sign and Symptoms Eyes:***

This material is classified as hazardous under U.S. OSHA regulations (29CFR1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification: Eye Damage/Irritation - Category 1 Causes serious eye damage.

***Potential Chronic Health Effects:***

Chronic skin contact with low concentrations may cause dermatitis.

***Mutagenicity:***

Not expected to be mutagenic in humans.

***Carcinogenicity:***

No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

***Reproductive Effects & Teratogenicity:***

Not expected to have other reproductive effects.

***Sensitization to Material:***

Not expected to be a skin or respiratory sensitizer.

**Specific Target Organ Effects:**

Target Organs: Eyes, skin, respiratory system and digestive system.

*This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).*

*Classification: Specific Target Organ Toxicity, Single Exposure-Category 3 (respiratory) May cause respiratory irritation.*

*The substance or mixture is not classified as specific target organ toxicant, repeated exposure.*

**Medical Conditions Aggravated by Overexposure:**

Pre-existing skin, eye and respiratory disorders.

**Synergistic Materials:**

Not available.

**Toxicological Data:**

See below for toxicological data on the substance.

Chemical Name	LC <sub>50</sub> (4 hr)	LD <sub>50</sub>	
	int, rat	(Oral, rat)	(Rabbit, Dermal)
Potassium hydroxide	N/Av	205 mg/kg	>1260 mg/kg
Water	N/Av	>90 mL/kg	N/Av

**Other Important Toxicological Hazards:** None known or reported by the manufacturer.

**SECTION 12. ECOLOGICAL INFORMATION**
**Ecotoxicity:**

The ecological characteristics of this product have not been fully investigated.

The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

Toxicity is primarily associated with pH.

Harmful to Aquatic Life.

**Ecotoxicity Data:**

Ingredients	CAS No.	Toxicity of Fish		
		LC50 (96 hr)	NOEC / 21 Day	M Factor
Potassium hydroxide	1310-58-3	80 mg/L <i>Gambusia affinis</i> (Mosquito fish)	N/Av	None
Water	7732-18-5	No Information Available	No Information Available	Not Applicable

Ingredients	CAS No.	Toxicity of Daphnia		
		LC50 (48 hr)	NOEC / 21 Day	M Factor
Potassium hydroxide	1310-58-3	56 mg/L <i>Ceriodaphnia</i> (water flea)	N/Av	None
Water	7732-18-5	No Information Available	No Information Available	Not Applicable

Ingredients	CAS No.	Toxicity of Algae		
		EC50 (96 hr or 72 hr)	NOEC / 96 hr or 72 hr	M Factor
Potassium hydroxide	1310-58-3	N/Av	N/Av	None
Water	7732-18-5	No Information Available	No Information Available	Not Applicable

*Algal inhibition tests are not appropriate. The flocculation characteristics of the product interfere directly in the test medium preventing homogeneous distribution which invalidates the test.*



**Persistence and Degradability:** The methods for determining biodegradability are not applicable to inorganic substances.

**Bioaccumulation Potential:** No data is available on the product itself.

Component	CAS No.	Partition coefficient n-octanol/ater (log Kow)	Bioconcentration factor (BCF)
		EC50 (96 hr or 72 hr)	NOEC / 96 hr or 72 hr
Potassium hydroxide	1310-58-3	N/Ap	N/Ap
Water	7732-18-5	N/Ap	N/Ap

**Chronic Toxicity to Invertebrates:** No data is available on the product itself.

**Toxicity to Microorganisms:** No data is available on the product itself.

**Effects on Terrestrial Organisms:** No data is available on the product itself.

**Sediment Toxicity:** No data is available on the product itself.

**Persistence and Degradability:**

No data is available on the product itself.

**Mobility in Soil:**

No data is available on the product itself.

**Results of PBT and vPvB assessment:**

Not classified as PBT or vPvB.

**Other Adverse Ecological Effects:**

The alkalinity of this material will have a local effect on ecosystems sensitive to changes in pH. No other adverse environmental effects (e.g., ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**Biodegradability:**

Not biodegradable (Biodegradability term pertains to an organic material capable of decomposition as a result of attack by microorganisms). However, potassium hydroxide will be neutralized by acidity present in natural environment.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Handling for Disposal:**

Handle waste according to recommendations in Section 7.

**Methods of Disposal:**

Dispose in accordance with all applicable federal, state, provincial and local regulations.

**Typical Disposal Instructions:**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Waste from Residues / Unused Products:**

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated Packaging:**






Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

**RCRA / Hazardous Waste Code:**

If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method.

For disposal of unused or waste material, check with local, state and federal environmental agencies.

## SECTION 14. TRANSPORTATION INFORMATION

Regulatory Information	UN Number	UN Proper Shipping Name	Transport Hazard Class(es)	Packing Group	Label
DOT		Potassium hydroxide, solution	8	II	
DOT	<b>Special Provisions:</b> B2, IB2, T7, TP2 <b>Special Precautions for User:</b> Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.				
DOT Addl. Info	<b>Packaging Exceptions:</b> 154 <b>Packaging Non Bulk:</b> 202 <b>Packaging Bulk:</b> 242				
TDG	UN1814	Potassium hydroxide, solution	8	II	
TDG Addl. Info	US CERCLA Reportable quantity (RQ):(1000 lbs / 454 kg)				
TDG	UN1814	POTASSIUM HYDROXIDE, SOLUTION	8	II	
TDG Addl. Info	May be shipped as LIMITED QUANTITY when shipped in quantities no larger than exceeding 30 kg. ERG #154.				
ICAO/IATA	UN1814	Potassium hydroxide, solution	8	II	
ICAO/IATA	<b>ERG Code:</b> 8 <b>Special Precautions for User:</b> Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.				
ICAO/IATA Additional Info	Refer to ICAO/IATA Packing Instruction				
IMDG	UN1814	POTASSIUM HYDROXIDE SOLUTION	8	II	
IMDG	<b>Ems:</b> F-A, S-B <b>Special Precautions for User:</b> Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.				
IMDG Addl. Info	May be shipped as a Limited Quantity, consult the IMDG regulations for details.				

**Special Precautions for User:**

None reported by the manufacturer.

**Environmental Hazards:**

See ECOLOGICAL INFORMATION, Section 12.

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code:**

Not available.

**SECTION 15. REGULATORY INFORMATION**

**US Federal Information:**

Components Listed Below are Present on The Following U.S. Federal Chemical Lists:

Ingredients	CAS No.	TSCA Inventory	CERCLA Reportable Quantity (RQ, 40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Potassium hydroxide	1310-58-3	Yes	1000 lb / 454 kg	None	No	N/Ap
Water	7732-18-5	Yes	N/Ap	N/Av	No	N/Ap

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute) health hazard; Chronic Health Hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

**US State Right to Know Laws:**

The Following Chemicals are Specifically Listed by individual States:

Ingredients	CAS No.	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Potassium hydroxide	1310-58-3	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes
Water	7732-18-5	No	N/Ap	No	No	No	No	No	No

**Canadian Information:**

**WHMIS Information:**

Refer to Section 2 for a WHMIS Classification for this product.

**Canadian Environmental Protection Act (CEPA) Information:**

All ingredients listed appear on the Domestic Substances List (DSL).

**International Information:**

Components Listed Below are Present on the Following International Inventory List:

Ingredients	CAS No.	Canada DSL	Canada NDSL	European EINECS	European ELINCS	Australia AICS	Philippines PICCS	Japan ENCS	Korea KEC/KECL	China IECSC	New Zealand IOC
Potassium hydroxide	1310-58-3	Yes	No	215-181-3	Yes	Yes	Yes	(1)-369	KE-29139	Yes	Yes
Water	7732-18-5	No	No	231-791-2	Yes	Yes	No	Listed	KE-35400	Yes	No

**SECTION 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION**

ProTEK 100 Safety Data Sheet	Supersedes Document Titled: "ProTek-100 CP"
Current SDS Code: "ProTEK 100 SDS 03/14/2016ggmwFV"	Previous Document Date of Release: 2/3/2009
Revision Date: 03/10/2016 - 03/14/2016	Revision No. 2
Prepared By: K. Gifford Goodhue, Jr. – 3/10/2016 – 03/14/2016	Verified By: Mark Walters on 3/15/2016
Issue Date: 3/15/2016	Print Date: 3/16/2016

**Legend:**

<b>CA:</b>	California
<b>CAS:</b>	Chemical Abstract Services
<b>CERCLA:</b>	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
<b>CFR:</b>	Code of Federal Regulations
<b>CSA:</b>	Canadian Standards Association
<b>DOT:</b>	Department of Transportation
<b>EPA:</b>	Environmental Protection Agency
<b>HMIS:</b>	Hazardous Materials Identification System
<b>HSDB:</b>	Hazardous Substances Data Bank
<b>IARC:</b>	International Agency for Research on Cancer
<b>IATA:</b>	International Air Transport Association
<b>ICAO:</b>	International Civil Aviation Organisation
<b>IMDG:</b>	International Maritime Dangerous Goods
<b>Inh:</b>	Inhalation
<b>LC:</b>	Lethal Concentration
<b>LD:</b>	Lethal Dose
<b>MA:</b>	Massachusetts
<b>MN:</b>	Minnesota
<b>N/Ap:</b>	Not Applicable
<b>N/Av:</b>	Not Available
<b>NFPA:</b>	National Fire Protection Association
<b>NIOSH:</b>	National Institute of Occupational Safety and Health
<b>NJ:</b>	New Jersey
<b>NTP:</b>	National Toxicology Program
<b>OSHA:</b>	Occupational Safety and Health Administration
<b>PA:</b>	Pennsylvania
<b>PEL:</b>	Permissible exposure limit
<b>RCRA:</b>	Resource Conservation and Recovery Act
<b>RI:</b>	Rhode Island
<b>RTECS:</b>	Registry of Toxic Effects of Chemical Substances
<b>SARA:</b>	Superfund Amendments and Reauthorization Act
<b>STEL:</b>	Short Term Exposure Limit
<b>TDG:</b>	Canadian Transportation of Dangerous Goods Act & Regulations
<b>TLV:</b>	Threshold Limit Values
<b>TWA:</b>	Time Weighted Average
<b>WHMIS:</b>	Workplace Hazardous Materials Identification System

**References:**

Canadian Centre for Occupational Health and Safety, CCInfoWeb Databases, 2015 (Chempendium, RTECs, HSDB, INCHEM).  
European Chemicals Agency, Classification Legislation, 2015  
Material Safety Data Sheet from Manufacturer/Distributor.  
OECD: Organization for Economic Co-operation and Development, 2015

Version 1.0	For the New GHS SDS Standard	Revision Date: 12/15/2014
Version 1.1	Hazard and Precautionary Statements	Revision Date: 02/04/2015
Version 1.2	Updated Graphics	Revision Date: 03/09/2015
Version 1.3	UN#, ICC GHS Edits	Revision Date: 05/20/2015
Version 1.4	Edits in Section 9	Revision Date: 05/21/2015
Version 1.5	Edits to Section 5	Revision Date: 06/02/2015
Version 1.6	Additions to Section 9	Revision Date: 06/25/2015

**Other Special Considerations for Handling:**

Provide adequate information, instruction and training for operators.

**HMIS Rating:**

\* - Chronic Hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe

Health: \*3 Flammability: 0 Reactivity: 1

**NFPA Rating:**

0 – Minimal 1 – Slight 2 – Moderate 3 – Serious 4 – Sever`

Health: 3 Flammability: 0 Instability: 1 Special Hazards: None



NFPA Scale (0-4)

<b>POTASSIUM HYDROXIDE</b> <small>(45% solution)</small>	
HEALTH	<b>3</b>
FLAMMABILITY	<b>0</b>
PHYSICAL HAZARD	<b>0</b>
PERSONAL PROTECTION	<b>J</b>

HMIS Ratings (0-4)

**Canada Classification:**

*Classification of the Substance or Mixture WHMIS:* Corrosive - E

**Label Elements WHMIS:**



**European Classification:**

**DSCL (Europe):**



**Personal Protective Equipment:**



**Miscellaneous Hazard Classes:**

**Canadian Carcinogenicity Hazard Class:** Not Applicable.

**Physical Hazards Not Otherwise Classified (PHNOC):** Not Applicable.

**Health Hazards Not Otherwise Classified (HHNOC):** Not Applicable.

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**End of Safety Data Sheet**