SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Common Name: **Potassium Hydroxide Liquid (All Grades)**
Chemical Name: **Potassium Hydroxide Liquid**
Preparation Date: 11/24/2015
Last Revision Date: 11/24/2015

Manufacturer's Name & Address
Roberts Chemical Co., Inc.
330-B Victor Road
Attleboro, MA 02703
TEL: 508-409-0220
FAX: 508-222-2752
www.robertschem.com

Emergency Telephone Number:
CHEMTREC **24-HourToll Free** (800) 424-9300

SECTION 2: HAZARD(S) IDENTIFICATION

GHS SYMBOL:

GHS SIGNAL WORD: DANGER

GHS HAZARD STATEMENTS:

PHYSICAL HAZARD STATEMENTS:

- Causes severe skin burns and eye damage
- Causes serious eye damage
- Toxic if swallowed
- Causes damage to organs

PRECAUTIONARY STATEMENTS:

- Keep only in original container
- Wash thoroughly after handling
- Do not breath dust, fume, gas, mist, vapors, or spray
- Do not eat, drink or smoke when using this product
- Wear protective gloves/clothing/eye/face protection

SECTION 3: COMPOSTION/ INFORMATION ON INGREDIENTS		
PRODUCT	**CAS#**	**% BY WEIGHT**
Water	**7732-18-5**	**49-90**
Potassium Hydroxide	**1310-58-3**	**10-51**

SECTION 4: FIRST-AID MEASURES

EYES: Flush eyes with large amounts of water for at least 15 minutes, holding lids apart to ensure flushing of the entire surface. Washing eyes within 1 minute is essential to achieve maximum effectiveness. Seek medical attention IMMEDIATELY.
SKIN: Immediately wash contaminated areas with plenty of water for 15 minutes.
Remove contaminated clothing and footwear, and wash before reuse. Discard any clothing that cannot be decontaminated. Seek medical attention immediately.
INGESTION: NEVER give anything by mouth to an unconscious person. If swallowed, give large quantities of water. If vomiting occurs spontaneously, keep airway clear. Seek medical attention immediately.
INHALATION: Remove to fresh air. If breathing is difficult give oxygen. If breathing has stopped administer artificial resuscitation. Seek medical attention immediately.

SECTION 5: FIRE-FIGHTING MEASURES

Fire Hazard: Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. May react with chemically reactive metals such as aluminum, zinc, magnesium, copper, etc. to release hydrogen gas which can form explosive mixtures in air.
Extinguishing Media: Use extinguishing agents appropriate for surrounding fire.
Fire Fighting: Move container from fire area if it can be done without risk. Cool containers with water. Do not apply water directly on this product. Heat is generated when mixed with water. Wear NIOSH approved positive-pressure self-contained breathing apparatus operated in pressure demand mode. Avoid contact with skin.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:
Avoid contact with skin,eyes and clothing. Wear appropriate personal protective equipment recommended in Section 8, Exposure Controls / Personal Protection, of the SOS.

Methods and Materials for Containment and Cleaning Up:
In case of spill or leak,stop the leak as soon as possible.Small and large spills:Contain spilled material if possible. Completely contain spilled materials with dikes, sandbags, etc.After

containment, collect the spilled material and transfer to a chemical waste area. Liquid material may be removed with a vacuum truck. Neutralize residue with dilute acid and follow with a liberal covering of sodium bicarbonate or other acceptable drying agent. See Section 13, Disposal considerations, for additional information.

Environmental Precautions:
Keep out of water supplies and sewers. This material is alkaline and may raise the pH of surface waters with low buffering capacity. Releases should be reported, if required, to appropriate agencies.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling:
Avoid breathing vapor or mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. When mixing, slowly add to water to minimize heat generation and spattering.

Safe Storage Conditions:
Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Do not store in aluminum container or use aluminum fittings or transfer lines, as flammable hydrogen gas may be generated. Keep separated from incompatible substances (see below or Section 10 of the Safety Data Sheet).

Incompatibilities/ Materials to Avoid:
Flammable liquids, acids, halogenated compounds, water, Prolonged contact with aluminum, brass, bronze,copper, lead, tin, zinc or other alkalisensitive metals or alloys

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION: Respiratory protection is not required under normal use. Use NIOSH/MSHA approved respirator where mist or spray may be generated above TLV limits.
VENTILATION: Use adequate local exhaust ventilation where mist or spray may be generated, to maintain levels below TLV limits.
PROTECTIVE CLOTHING: Wear rubber or alkaline resistant gloves and rubber apron.
EYE PROTECTION: Chemical safety goggles or face shield.
WORK PRACTICES: Skin that becomes contaminated with this substance should be immediately washed or showered with soap and water.
HYGIENIC PRACTICES: Eating, drinking or smoking should not be permitted in areas where any chemical substances are handled, processed, or stored. Employees who handle these materials should wash their hands thoroughly with soap and water before eating, drinking, smoking or using toilet facilities.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Odor: odorless
Appearance: Clear
Molecular Weight: 56.11
Molecular Formula: KOH
Boiling Point: 216 to 289˚F
Freezing Point: -85 to 39˚F
Water Solubility: 100%
pH: 12-14

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Soluble in water, releasing heat sufficient to ignite combustibles. Reacts with acids, giving off heat.

Chemical Stability: Stable at normal temperatures and pressures.

Conditions to Avoid:
Mixing with water, acid, or incompatible materials may cause splattering and release of large amounts of heat. Will react with some metals forming flammable hydrogen gas. Carbon monoxide gas may form upon contact with reducing sugars, food and beverage products in enclosed spaces.

Incompatibilities/ Materials to Avoid:
Flammable liquids, acids, halogenated compounds,water, Prolonged contact with aluminum, brass, bronze,copper, lead, tin, zinc or other alkalisensitive metals or alloys

Hazardous Decomposition Products: None known

Hazardous Polymerization: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

LD50 Oral – 273 mg/kg oral-rat

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY DATA:

Aquatic Toxicity:
This material is alkaline and may raise the pH of surface waters with low buffering capacity. This material has exhibited moderate toxicity to aquatic organisms.

Freshwater Fish Toxicity:
LC50 (Mosquito fish): 80 mg/U96 hr (static bioassay in fresh water at 18-19 C) LC50 (Fathead Minnow): 179 mg/L/96 hr (static at 22.3-24.7 C)

Invertebrate Toxicity:
EC50 (Daphnia magna): 60 mg/U48 hr (static bioassay at 20.3-20.7 C)

Algae Toxicity:
ErC50 (Selenastrum capricornutum): 61 mg/U96 hr (static bioassay at 23-23.9 C)

SECTION 13: DISPOSAL CONSIDERATIONS

Waste from material:
Reuse or reprocess, if possible. May be subject to disposalregulations. Dispose of in accordance with all applicable regulations.

Container Management:
Dispose of container in accordance with applicable local, regional, national, and/or international regulations. Container rinsate must be disposed of in compliance with applicable regulations.

SECTION 14: TRANSPORTATION INFORMATION

UN Number: UN1814
Proper Shipping Name: Potassium Hydroxide, Solution
Hazard Class: 8
Packing Group: II
Labeling Requirements: 8
RQ (lbs.): RQ 1,000 lbs. (potassium hydroxide)

SECTION 15: REGULATORY INFORMATION

OSHA REGULATORY STATUS:
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

SECTION 16: OTHER INFORMATION

All information, recommendations and suggestions appearing herein concerning this product are based upon data believed to be reliable; however, it is the user's responsibility to determine the safe handling and suitability for the use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by **Roberts Chemical** as to the effects of such use, the results obtained, or the safety and toxicity of the product, nor does **Roberts Chemical** per se assume any liability arising out of use, by others, of the product referred to herein. Nor is the information herein to be construed as absolutely complete since more information may be desirable or necessary when particular or exceptional conditions or circumstances exist, or because of applicable laws or government regulations.