SAFETY DATA SHEET

1. **Identification of Substance and Manufacturer:**
   Potassium Hydroxide Pellets PCN: 90077
   Use: To be used only with Aqua Torch as per directions.
   Supplier: L&R Manufacturing Company, 577 Elm Street, P.O. Box 607 Kearny, NJ 07032-0607 USA.
   Publication Date: 9/17/2014 REV: H
   Product information call 201-991-5330 www.lrultrasonics.com
   For emergencies involving a spill, leak fire or accident contact CHEMTREC 800-424-9300 with the United States. Or (01) 703-527-3887 (USA) for International collect calls.

2. HAZARDS IDENTIFICATION

WARNINGS! CORROSIVE! HARMFUL IF SWALLOWED! CAUSES SEVERE BURNS!

B: POTENTIAL HEALTH EFFECTS:
Acute Eyes: Causes severe eye burns. Direct contact causes moderate to severe damage to the eyes..
Acute Skin: Causes skin burns.
Acute Inhalation: Will cause irritation to the respiratory system
Acute Ingestion: Harmful if swallowed. Will cause damage to mucus membranes, and other tissue. Ingestion of large quantities may be fatal.
Chronic Effects: This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogen. Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated eye contact may cause conjunctivitis
.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Percentage
Potassium Hydroxide	1310-58-3	85 - 100

4. FIRST AID MEASURES

Eye Exposure: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention.
Skin Exposure: Wash thoroughly with water. Remove grossly contaminated clothing. If irritation or redness develops, seek medical attention**.**
Inhalation: If respiratory irritation or distress occurs, move victim to fresh air. Seek medical attention if respiratory irritation or distress continues**.**
Ingestion: Seek immediate medical attention. DO NOT INDUCE VOMITING. If conscious rinse mouth with plenty of water and give plenty of water to drink.
MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE: Skin contact may aggravate existing skin disease.

5. FIRE FIGHTING MEASURES

FIRE HAZARD DATA:
Suitable Extinguishing Media: Extinguish with dry chemical, CO2 or a BC/ABC extinguisher.
Unsuitable Extinguishing Media: Do not use a solid stream of water, since the stream will scatter and spread the fire. Water spray may be used to keep fire exposed containers cool.
Special Fire Fighting Procedures: Wear full protective clothing and self-contained breathing apparatus (SCBA) approved for fire fighting.
Unusual Fire and Explosion Hazards: Closed containers may explode due to build up of pressure when exposed to extreme heat.
Hazardous Decomposition Materials: (under fire conditions) Oxides of nitrogen and carbon.

6. ACCIDENTAL RELEASE MEASURES

Cleanup and Disposal of Spill: Ventilate area of spill. Use non-reactive material to pick up spill. Dispose of in accordance with local, state and federal regulations.
Environmental and Regulatory Reporting: Not required

7. HANDLING AND STORAGE

Minimum/Maximum Storage Temperatures: 39 to 100 ^{o} F. PROTECT FROM HEAT, SPARKS AND FLAMES
HANDLING: AVOID CONTACT WITH SKIN, EYES OR CLOTHING

8. EXPOSURE CONTROL/PERSONAL PROTECTION

General: These recommendations provide general guidance for handling of this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. When developing safe handling procedures, do not overlook the need to clean and dispose of the material. Waste resulting from the use of this product should be handled in accordance with Section 13: Disposal Considerations.

Exposure Guidelines: Exposure limits are recommended worker breathing limits. The following limits apply to this material:

INGREDIENTS	LIMITS
Potassium hydroxide	2 mg/M^3 TLV/TWA

Engineering Controls: Normal room ventilation.

Respiratory Controls: For reasonable uses of this material, respiratory protection should not be necessary.

Eye/Face Protection: Safety glasses to protect from splashing**.**

Skin Protection: Rubber or plastic gloves to avoid drying and irritation to the skin.

Work Practice Control: Normal hygiene in the work area should be taken when working with or handling this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Pellets **Color:** White **Odor:** no odor.

pH: > 13 (1% Solution in water) **Specific Gravity:** 2.04 **Odor Threshold:** Not available

Water Solubility: Soluble **Melting Point Range:** 360 ° C **Evaporation Rate:** Not available

Freezing Point Range: Not applicable **Boiling Point:** 1320 ° C **Partition Coefficient; n-octanol / water:** Not available

Vapor Pressure: 96 mm Hg **Vapor Density:** Not Available **Decomposition Temperature:** Not available

Flash Point: Not Combustible **Method:** Tag Closed Cup **Auto Ignition Temperature:** Not available

Flammability limits (vol/vol %): Lower: No Data **Upper**: No Data

Percent volatile by volume: Less than 1% by volume **V.O.C. (calculated):** Less than 5 grams / l**.**

10. STABILITY AND REACTIVITY

Chemical Stability: Stable. Readily absorbs carbon dioxide and moisture from air.

Conditions to be avoided: Keep away from heat. Avoid Excess moisture.

Materials/Chemicals to be avoided: Strong acids, strong oxidizing agents, aluminum magnesium, zinc

Decomposition Type: Thermal oxides of carbon and nitrogen

Possibility of Hazardous Reactions: WILL NOT OCCUR

11. TOXICOLOGICAL INFORMATION

Acute Eye Irritation: Causes severe Irritation to eyes.

Acute Skin Irritation: May cause severe irritation to Skin.

Acute Dermal Toxicity: Causes severe burning of mouth and stomach

Acute Respiratory Irritation: Excessive inhlation of the dust is irritating and may be severly damaging to the respiratory tract..

Acute Inhalation Toxicity: No test data found for product**.**

Acute Oral Toxicity:

LD50 (rat) = 273 mg/kg for Potassium Hydroxide

Chronic Toxicity: This product does not contain any substances that are considered by OSHA, NTP, IARC OR ACGIH to be a probable or suspected human carcinogen. No additional test data was found for this product**.**

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: Fish: Mosquito Fish: LD50 80.0 mg/L; 24 Hr.

13. DISPOSAL CONSIDERATIONS

This product can be disposed in sanitary sewer system, with dilution, where permitted by local, federal and state regulations.

14. TRANSPORTATION INFORMATION

For approved domestic ground shippers this product is classified ORM-D for domestic ground shipments. For any other shippers or transportation the proper designation is: Corrosive (POTASSIUM HYDROXIDE) Class 8 UN 1813, Packing Group II. Do not stack cartons more than five high.

15. REGULATORY INFORMATION

Inventory Issues: All components of this product are listed on the U.S. TSCA, Canadian DSL**,** European EINECS/ELINS chemical listings

16. OTHER INFORMATION

National Fire Protection Association

Hazard Rating, NFPA	Health	Flammability	Reactivity	Special
	3	0	0	--

MSDS CHANGES

REV	DATE	DESCRIPTION OF CHANGE
G	2/19/13	**Update**
H	**9/17/14**	**SDS Format**

Disclaimer: The information herein is given in good faith but no warranty expressed or implied is made. This Potassium Hydroxide SDS has been prepared by L&R Manufacturing Company.