

**SECTION 1 - CHEMICAL IDENTIFICATION**

PRODUCT NAME: POTASSIUM HYDROXIDE

DOT CATALOG NUMBER: DSP44000

SUPPLIER'S NAME: DOT Scientific, Inc.

SUPPLIERS ADDRESS: 4165 Lippincott  
Burton, MI 48519

EMERGENCY CONTACT: 1-800-424-9300 (Reference Customer Number: 18739)

OTHER INFORMATION: 1-800-878-1785

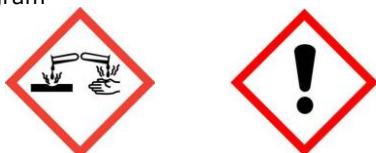
**SECTION 2 - HAZARDS IDENTIFICATION**
**2.1 Classification of the substance or mixture**

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H290	Corrosive to metals	Category 1
H314	Skin corrosion/irritation	Category 1B
H318	serious eye damage	Category 1
H402	Acute aquatic toxicity	Category 3

**2.2 GHS Label elements, including Hazard and Precautionary Statement(s)**

Pictogram



Signal word: Danger

Hazard statement(s)

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage
H402	Harmful to aquatic life.

Prevention, Response, Storage and Disposal Precautionary Statement(s)

P234	Keep only in original container.
P260	Do not breathe dust or mist.
P264	Wash skin thoroughly after handling
P273	Avoid release to the environment
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician
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 POISON CENTER or doctor/ physician.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P405	Store locked up.
P406	Store in corrosive resistant stainless steel container with a resistant inner Liner.
P501	Dispose of contents/ container to an approved waste disposal plant.

According to European Directive 67/548/EEC as amended

Hazard symbol(s): R-phrase(s)/S-phrase(s):

R35	Causes severe burns
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37/39	Wear suitable protective clothing, gloves and eye/face protection

S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
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### **SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS**

COMPONENT	CAS #	EINECS #	FORMULA	MW	% AGE
POTASSIUM HYDROXIDE	1310-58-3	215-181-3	KOH	56.11 G/MOL	> 85.0
WATER	7732-18-5	215-1085-5	H <sub>2</sub> O	18.02 G/MOL	≤ 15.0

### **SECTION 4 - FIRST-AID MEASURES**

#### **4.1 Description of first aid measures**

**General advice:** Consult a doctor and show this safety data sheet.

- i. **If inhaled:** Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.
- ii. **In case of skin contact:** Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.
- iii. **In case of eye contact:** Flush with copious amounts of water for at least 15 minutes. Consult a doctor.
- iv. **If swallowed:** Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.

**4.2 Most important symptoms and effects, both acute and delayed:** To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

**4.3 Indication of immediate medical attention and special treatment needed:** Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

### **SECTION 5 - FIRE FIGHTING MEASURES**

#### **5.1 Extinguishing media**

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

**5.2 Special hazards arising from the substance or mixture:** no data available.

**5.3 Precautions for fire-fighters:** Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

**5.4 Further information:** no data available

### **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures:** Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.

**6.2 Environmental precautions:** Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up:** Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container. Decontaminate spill site with 10% caustic solution and ventilate area until after disposal is complete. Hold all material for appropriate disposal as described under section 13 of SDS.

**6.4 Reference to other sections:** For required PPE see section 8. For disposal see section 13.

### **SECTION 7 - HANDLING AND STORAGE**

#### **7.1 Precautions for safe handling:**

Use in a chemical fume hood, with air supplied by an independent system. Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

**7.2 Conditions for safe storage, including any incompatibilities:** Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use.

**7.3 Specific end use(s):** Use in a laboratory fume hood where possible. Refer to employer's COSHH risk assessment.

## **SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1 Control parameters**

**Components with workplace control parameters:**

Component	KOH	KOH	KOH	KOH	KOH
<b>CAS-No</b>	1310-58-3		1310-58-3		1310-58-3
<b>Value</b>	C				c
<b>Control Parameters</b>	2.000000 mg/m <sup>3</sup>	Remarks Upper Respiratory Tract irritation Eye irritation Skin irritation	2 mg/m <sup>3</sup>	Remarks Upper Respiratory Tract irritation Eye irritation Skin irritation	2.000000 mg/m <sup>3</sup>
<b>Basis</b>	USA. ACGIH Threshold Limit Values (TLV)		USA. ACGIH Threshold Limit Values (TLV)		USA. NIOSH Recommended Exposure Limits

### **8.2 Exposure Controls**

- i. **Appropriate engineering controls:** Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.

### **8.3 Personal protective equipment**

- i. **Eye/face protection:** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- ii. **Skin protection:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166
- iii. **Body Protection:** Wear appropriate protective clothing. 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.
- iv. **Respiratory Protection:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
- v. **Control of environmental exposure:** Do not let product enter drains

## **SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

### **Information on basic physical and chemical properties**

<b>Appearance</b>	White to Pale Violet Pellets	<b>Vapor Pressure</b>	0.13332 kPa at 714 °C
<b>Odor</b>	Odorless	<b>Vapor Density</b>	No Data Available
<b>Odor Threshold</b>	No Data Available	<b>Relative Density</b>	2,1300 g/cm <sup>3</sup>
<b>pH (0.1 molar aqueous solution @ 25 ° C)</b>	13.5	<b>Water Solubility</b>	1070 g/l @ 59°F
<b>Melting / Freezing Point</b>	716 °F (380 °C)	<b>Partition Coefficient</b>	No Data Available
<b>Initial Boiling Point and Boiling Range</b>	2420.6 °F (1327 °C)	<b>Auto-Ignition Temperature</b>	No Data Available
<b>Flash Point</b>	No Data Available	<b>Decomposition Temperature</b>	No Data

			Available
<b>Evaporation Rate</b>	No Data Available	<b>Viscosity</b>	No Data Available
<b>Flammability (Solid, Gas)</b>	No Data Available	<b>Explosive Properties</b>	No Data Available
<b>Upper / Lower Flammability Or Explosive Limits</b>	No Data Available	<b>Oxidizing Properties</b>	No Data Available

### **SECTION 10 - STABILITY AND REACTIVITY**

**Stability:** Heat of solution is very high, and with limited amounts of water, violent boiling may occur. Stable under recommended storage conditions.

**Conditions to Avoid:** No Data Available

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

### **SECTION 11 - TOXICOLOGICAL INFORMATION**

#### **ACUTE TOXICITY:**

<b>LD50 Oral</b>	<b>LD50 Dermal</b>	<b>LD50 Inhalation</b>
1230 mg/kg (Rat)	Not Listed	Not Listed

**CHRONIC TOXICITY:** There are no known carcinogenic chemicals in this product

### **SECTION 12 - ECOLOGICAL INFORMATION**

#### **TOXICITY:**

<b>Toxicity to fish LC50</b>
Gambusia affinis (Mosquito fish) - 80 mg/l - 96 HR

**Persistence and degradability:** No data available  
**Bioaccumulative potential:** No data available  
**Mobility in soil:** No data available  
**Results of PBT and vPvB assessment:** No data available  
**Other adverse effects:** May be harmful to the aquatic environment.  
**Chronic Toxicity:** There are no known carcinogenic chemicals in this product

### **SECTION 13 - DISPOSAL CONSIDERATIONS**

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Dispose of container and unused contents in accordance with federal, state and local requirements.

### **SECTION 14 - TRANSPORT INFORMATION**

	<b>UN#</b>	<b>Proper Shipping Name</b>	<b>Hazard Class</b>	<b>Packaging Group</b>
<b>DOT</b>	1813	Potassium hydroxide, solid	8	II
<b>TDG</b>	1813	Potassium hydroxide, solid	8	II
<b>IATA</b>	1813	Potassium hydroxide, solid	8	II
<b>IMDG/IMO</b>	1813	Potassium hydroxide, solid	8	II

### **SECTION 15 - REGULATORY INFORMATION**

#### **INTERNATIOANL INVENTORIES**

<b>INGREDIENT</b>							<b>CAS #:</b>		<b>EINECS</b>
<b>Potassium Hydroxide</b>							1310-58-3		215-181-3
<b>TSCA</b>	<b>DSL</b>	<b>NDSL</b>	<b>ELINCS</b>	<b>NLP</b>	<b>PICCS</b>	<b>ENCS</b>	<b>AICS</b>	<b>CHINA</b>	<b>KECL</b>
Listed	Listed	-	-	-	Listed	Listed	Listed	Listed	KE-29139 Listed



### USA FEDERAL REGULATION

**TSCA 12(b):** Not Applicable

**SARA 313:** Not Applicable

### SARA 311/312 HAZARDOUS CATEGORIZATION

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release Of Pressure Hazard	Reactive Hazard
No	No	No	No	No

### CLEAN WATER ACT/ CLEAN AIR ACT:

CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Listed	1000 lb	-	-

**OSHA:** Not Applicable

**CALIFORNIA PROPOSITION 65:** This product does not contain any Proposition 65 chemicals.

**CERCLA:** This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Component	Hazardous Substances RQs	CERCLA EHS RQs
Sodium hydroxide	1000 lb	-

### HMIS Rating

Health Hazard	Flammability	Physical Hazard
3	0	0

### NFPA Rating

Health Hazard	Flammability	Physical Hazard
3	0	0

### STATE RIGHT TO KNOW

Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Listed	Listed	Listed	-	Listed

### US DEPARTMENT OF TRANSPORTATION

REPORTABLE QUANTITY (RQ)	DOT MARINE POLLUTANT	DOT SEVER MARINE POLLUTANT
Yes	No	No

**U.S. DEPARTMENT OF HOMELAND SECURITY:** This product does not contain any DHS chemicals.

**Canada:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

**This SDS complies with the requirements of Regulation (EC)**

### **SECTION 16 - OTHER INFORMATION**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. DOT Scientific, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. This product is sold for laboratory research and development purposes use only.