

# Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 05.25.2017

Page 1 of 9

## Potassium Hydroxide Solution

### SECTION 1: Identification

#### Product identifier

**Product name:** Potassium Hydroxide Solution

**Product code:** PH9294SS

#### Recommended use of the product and restriction on use

**Relevant identified uses:** Laboratory Chemicals

**Uses advised against:** Not determined or not applicable.

**Reasons why uses advised against:** Not determined or not applicable.

#### Manufacturer or supplier details

##### Manufacturer:

##### United States

AquaPhoenix Scientific, Inc.

860 Gitts Run Road

Hanover, PA 17331

1-717-632-1291

#### Emergency telephone number:

##### Canada

##### ChemTel: (24-hour)

+1(800)255-3924

+1(813)248-0585 (International)

### SECTION 2: Hazard identification

#### GHS classification:

Flammable liquids, category 2

Skin corrosion, category 1A

Acute toxicity (oral), category 3

Acute toxicity (dermal), category 3

Acute toxicity (inhalation), category 3

Specific target organ toxicity - single exposure, category 1

#### Label elements

##### Hazard pictograms:



**Signal word:** Danger

#### Hazard statements:

H225 Highly flammable liquid and vapor.

H314 Causes severe skin burns and eye damage.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H331 Toxic if inhaled.

H370 Causes damage to organs.

## Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 05.25.2017

Page 2 of 9

### Potassium Hydroxide Solution

#### Precautionary statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P271 Use only outdoors or in a well-ventilated area.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P370+P378 In case of fire: Use agents recommended in section 5 for extinction.  
P321 Specific treatment (see supplemental first aid instructions on this label).  
P363 Wash contaminated clothing before reuse.  
P304+P340+P310 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.  
P301+P330+P331+P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.  
P303+P361+P353+P310 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. 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.  
P302+P352+P312 If on skin: Wash with soap and water. Call a poison center or doctor/physician if you feel unwell.  
P307+P311 If exposed: Call a poison center or doctor/physician.  
P405 Store locked up.  
P403+P233 Store in a well ventilated place. Keep container tightly closed.  
P501 Dispose of contents and container as instructed in Section 13.

**Hazards not otherwise classified:** None

### SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 67-56-1	Methanol	90
CAS number: 1310-58-3	Potassium hydroxide	10

**Additional Information:** None

### SECTION 4: First-aid measures

#### Description of first-aid measures

##### General notes:

Not determined or not available.

##### After inhalation:

Move exposed individual to fresh air

Loosen clothing as necessary and position individual in a comfortable position

## Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 05.25.2017

Page 3 of 9

### Potassium Hydroxide Solution

Maintain an unobstructed airway  
Call a POISON CONTROL CENTER or seek medical attention

#### After skin contact:

Wash affected area with soap and water  
Seek medical attention if symptoms develop or persist  
Call a POISON CONTROL CENTER or seek medical attention if you feel unwell

#### After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes  
Remove contact lens(es) if able to do so during rinsing  
Immediately call a POISON CONTROL CENTER or seek medical attention

#### After ingestion:

Immediately call a POISON CONTROL CENTER or seek medical attention  
Do not induce vomiting  
Rinse mouth and then drink plenty of water

### Most important symptoms and effects, both acute and delayed

#### Acute symptoms and effects:

Not determined or not available.

#### Delayed symptoms and effects:

Not determined or not available.

### Immediate medical attention and special treatment

#### Specific treatment:

Not determined or not available.

#### Notes for the doctor:

Not determined or not available.

## SECTION 5: Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing media:

Use dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam

#### Unsuitable extinguishing media:

Not determined or not applicable.

### Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors  
Vapors can flow to distant ignition sources and flashback  
Liquid is volatile and may generate an explosive atmosphere

### Special protective equipment for firefighters:

Wear protective eye wear, gloves and clothing  
Refer to Section 8

### Special precautions:

Avoid inhaling gases, fumes, dust, mist, vapor and aerosols  
Avoid contact with skin, eyes and clothing

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures:

## Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 05.25.2017

Page 4 of 9

### Potassium Hydroxide Solution

Beware of vapors accumulating to form explosive concentrations  
Vapors can accumulate in low areas  
Ensure adequate ventilation  
Ensure air handling systems are operational

#### Environmental precautions:

Should not be released into the environment  
Prevent from reaching drains, sewer or waterway

#### Methods and material for containment and cleaning up:

Wear protective eye wear, gloves and clothing  
Use spark-proof tools and explosion-proof equipment

#### Reference to other sections:

Not determined or not applicable.

### SECTION 7: Handling and storage

#### Precautions for safe handling:

Do not eat, drink, smoke or use personal products when handling chemical substances.  
Avoid breathing mist or vapor.  
Use only non-sparking tools.  
Take precautionary measures against electrostatic discharges.

#### Conditions for safe storage, including any incompatibilities:

Store in a cool, well-ventilated area.  
Keep container tightly sealed.  
Keep away from all ignition sources: open flames, hot surfaces, direct sunlight, spark sources.  
Store locked up.  
Use appropriate containment to avoid environmental contamination.  
Protect from freezing and physical damage.

### SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

#### Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	Potassium hydroxide	1310-58-3	ACGIH TLV C 2.0 mg/m <sup>3</sup>
	Methanol	67-56-1	ACGIH TLV STEL 250 ppm [skin]
	Methanol	67-56-1	ACGIH TLV TWA 200 ppm [skin]
NIOSH	Methanol	67-56-1	NIOSH REL ST 325 mg/m <sup>3</sup> [skin]
	Potassium hydroxide	1310-58-3	NIOSH REL C 2.0 mg/m <sup>3</sup>
	Methanol	67-56-1	NIOSH REL TWA 200 ppm [skin]
	Methanol	67-56-1	NIOSH REL TWA 260 mg/m <sup>3</sup> [skin]
	Methanol	67-56-1	NIOSH REL ST 250 ppm [skin]
United States (OSHA)	Methanol	67-56-1	OSHA PEL TWA 200 ppm
	Methanol	67-56-1	OSHA PEL TWA 260 mg/m <sup>3</sup>

#### Biological limit values:

No biological exposure limits noted for the ingredient(s).

## Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 05.25.2017

Page 5 of 9

### Potassium Hydroxide Solution

#### Information on monitoring procedures:

Not determined or not applicable.

#### Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Use explosion-proof ventilation equipment.

#### Personal protection equipment

##### Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

##### Skin and body protection:

Select glove material impermeable and resistant to the substance.

##### Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

#### General hygienic measures:

Wash hands before breaks and at the end of work.

Avoid contact with skin, eyes and clothing.

### SECTION 9: Physical and chemical properties

#### Information on basic physical and chemical properties

<b>Appearance (physical state, color):</b>	Clear, colorless liquid
<b>Odor:</b>	Mild alcohol
<b>Odor threshold:</b>	Not determined or not available.
<b>pH-value:</b>	Not determined or not available.
<b>Melting/Freezing point:</b>	Not determined or not available.
<b>Boiling point/range:</b>	Approx. 64 °C at 760 mmHg
<b>Flash point:</b>	Approx. 12 °C
<b>Evaporation rate:</b>	Not determined or not available.
<b>Flammability (solid, gaseous):</b>	Flammable
<b>Explosion limit upper:</b>	Not determined or not available.
<b>Explosion limit lower:</b>	Not determined or not available.
<b>Vapor pressure:</b>	Not determined or not available.
<b>Vapor density:</b>	Not determined or not available.
<b>Density:</b>	Not determined or not available.
<b>Relative density:</b>	Not determined or not available.
<b>Solubilities:</b>	Not determined or not available.
<b>Partition coefficient (n-octanol/water):</b>	Not determined or not available.
<b>Auto/Self-ignition temperature:</b>	Not determined or not available.
<b>Decomposition temperature:</b>	Not determined or not available.
<b>Dynamic viscosity:</b>	Not determined or not available.
<b>Kinematic viscosity:</b>	Not determined or not available.
<b>Explosive properties</b>	Not determined or not available.
<b>Oxidizing properties</b>	Not determined or not available.

## Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 05.25.2017

Page 6 of 9

### Potassium Hydroxide Solution

#### Other information

### SECTION 10: Stability and reactivity

#### Reactivity:

Does not react under normal conditions of use and storage.

#### Chemical stability:

Stable under normal conditions of use and storage.

#### Possibility of hazardous reactions:

None under normal conditions of use and storage.

#### Conditions to avoid:

Excess heat, ignition source or flames.

#### Incompatible materials:

None known.

#### Hazardous decomposition products:

None known.

### SECTION 11: Toxicological information

#### Acute toxicity

**Assessment:** Toxic if swallowed Toxic in contact with skin Toxic if inhaled

**Product data:** No data available.

#### Substance data:

Name	Route	Result
Potassium hydroxide	oral	LD50 - Rat - 333 mg/kg

#### Skin corrosion/irritation

**Assessment:** Causes severe skin burns and eye damage

**Product data:** No data available.

#### Substance data:

Name	Result
Potassium hydroxide	Causes severe skin burns and eye damage.

#### Serious eye damage/irritation

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Respiratory or skin sensitization

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Carcinogenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**International Agency for Research on Cancer (IARC):** None of the ingredients are listed.

## Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 05.25.2017

Page 7 of 9

### Potassium Hydroxide Solution

**National Toxicology Program (NTP):** None of the ingredients are listed.

#### Germ cell mutagenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Reproductive toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Specific target organ toxicity (single exposure)

**Assessment:** Causes damage to organs

**Product data:** No data available.

**Substance data:**

Name	Result
Methanol	Causes damage to the optic nerve and central nervous system.

#### Specific target organ toxicity (repeated exposure)

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Aspiration toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**Information on likely routes of exposure:** No data available.

**Symptoms related to the physical, chemical and toxicological characteristics:** No data available.

**Other information:** No data available.

### SECTION 12: Ecological information

#### Acute (short-term) toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Chronic (long-term) toxicity

**Product data:** No data available.

**Substance data:** No data available.

#### Persistence and degradability

**Product data:** No data available.

**Substance data:** No data available.

#### Bioaccumulative potential

**Product data:** No data available.

**Substance data:** No data available.

#### Mobility in soil

# Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 05.25.2017

Page 8 of 9

## Potassium Hydroxide Solution

**Product data:** No data available.

**Substance data:** No data available.

**Other adverse effects:** No data available.


### SECTION 13: Disposal considerations

#### Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11)

### SECTION 14: Transport information

#### Canadian Transportation of Dangerous Goods (TDG)

UN number	3286
UN proper shipping name	Flammable Liquid, Toxic, Corrosive, N.O.S., (Potassium Hydroxide Solution, Methanol Solution) Potassium Hydroxide, Methanol
UN transport hazard class(es)	3 
Packing group	II
Environmental hazards	None
Special precautions for user	None

#### International Maritime Dangerous Goods (IMDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

#### International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

#### Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Bulk Name	None
Ship type	None
Pollution category	None



## Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 05.25.2017

Page 9 of 9

### Potassium Hydroxide Solution

#### SECTION 15: Regulatory information

##### Canada regulations

##### Domestic substances list (DSL):

1310-58-3	Potassium hydroxide	Listed
67-56-1	Methanol	Listed

**Non-domestic substances list (NDSL):** Not determined.

#### SECTION 16: Other information

**Abbreviations and Acronyms:** None

##### Disclaimer:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**NFPA:** 3-3-1

**HMIS:** 3-3-1

**Initial preparation date:** 05.25.2017

**End of Safety Data Sheet**