According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

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Benzoic Acid

SECTION 1: Identification

Product identifier

Product name: Benzoic Acid **Product code:** KEMBZ6700-H

Recommended use of the product and restriction on use

Relevant identified uses: Not determined or not applicable. **Uses advised against:** Not determined or not applicable.

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

Manufacturer or supplier details

Manufacturer: Supplier:

AquaPhoenix Scientific AquaPhoenix Scientific Inc.

860 Gitts Run Road 860 Gitts Run Road

Hanover PA 17331 PA 17331 (717) 632-1291 (717) 632-1291

Emergency telephone number:

United States

Emergency Telephone No.: 800-255-3924

SECTION 2: Hazard(s) identification

GHS classification:

Skin irritation, category 2

Serious eye damage, category 1

Specific target organ toxicity - repeated exposure, category 1

Label elements

Hazard pictograms:







Signal word: Danger **Hazard statements:**

H315 Causes skin irritation

H318 Causes serious eye damage

H372 Causes damage to organs through prolonged or repeated exposure

Precautionary statements:

P264 Wash skin thoroughly after handling

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

P260 Do not breathe dust/fume/gas/mist/vapors/spray

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

P321 Specific treatment (see supplemental first aid instructions on this label).

P362 Take off contaminated clothing and wash before reuse

P302+P352 If on skin: Wash with soap and water

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Benzoic Acid

P332+P313 If skin irritation occurs: Get medical advice/attention

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.

P314 Get medical advice/attention if you feel unwell

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: 65-85-0	Benzoic acid	>99

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:

Not determined or not applicable.

After inhalation:

Loosen clothing as necessary and position individual in a comfortable position Maintain an unobstructed airway

After skin contact:

Rinse affected area with soap and water

If symptoms develop or persist, seek medical attention

Wash affected area with soap and water

Seek medical attention if symptoms develop or persist

After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes

If symptoms develop or persist, seek medical attention

Remove contact lens(es) if able to do so during rinsing

Immediately call a POISON CONTROL CENTER or seek medical attention

After swallowing:

Rinse mouth thoroughly

Seek medical attention if irritation, discomfort, or vomiting persists

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Not determined or not applicable.

Delayed symptoms and effects:

Not determined or not applicable.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not applicable.

Notes for the doctor:

Not determined or not applicable.

SECTION 5: Firefighting measures

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

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Benzoic Acid

Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

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:

Ensure adequate ventilation

Ensure air handling systems are operational

Wear protective eye wear, gloves and clothing

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

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.

Conditions for safe storage, including any incompatibilities:

Store in a cool, well-ventilated area.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

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

Biological limit values:

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

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.

Personal protection equipment

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

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Benzoic Acid

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

Appearance	Crystalline powder
Odor	Pleasant odor
Odor threshold	Not determined or not available.
pH	2.8 (satd soln)
Melting point/freezing point	122.4 deg C
Initial boiling point/range	249.2C @ 760 mmHg
Flash point (closed cup)	121C
Evaporation rate	Negligible
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	0.0012 mm Hg @ 25C
Vapor density	4.21 (air=1)
Density	Not determined or not available.
Relative density	Not determined or not available.
Solubilities	3.4 g/l @ 25C
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	570C
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

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.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.12.2018 Page 5 of 8

Benzoic Acid

Conditions to avoid:

None known.

Incompatible materials:

None known.

Hazardous decomposition products:

None known.

SECTION 11: Toxicological information

Acute toxicity

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

Product data: No data available.

Substance data: No data available.

Skin corrosion/irritation

Assessment: Causes skin irritation **Product data:** No data available.

Substance data:

Name	Result
Benzoic acid	Causes skin irritation.

Serious eye damage/irritation

Assessment: Causes serious eye damage

Product data: No data available.

Substance data:

Name	Result
Benzoic acid	Causes serious eye damage.

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.

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

Product data: No data available.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

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Benzoic Acid

Substance data:

Name	Result
	Specific Target Organ Toxicity, Repeated Exposure - Causes damage to lungs through prolonged or repeated exposure via inhalation.

Specific target organ toxicity (repeated exposure)

Assessment: Causes damage to organs through prolonged or repeated exposure

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

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

United States Transportation of dangerous goods (49 CFR DOT)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.12.2018 Page 7 of 8

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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

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

65-85-0 Benzoic acid	Listed
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Significant New Use Rule (TSCA Section 5): Not determined.

Export notification under TSCA Section 12(b): Not determined.

SARA Section 311/312 hazards:

Acute	Chronic	Fire	Pressure	Reactive
Yes	No	No	No	No

SARA Section 302 extremely hazardous substances: Not determined.

SARA Section 313 toxic chemicals:

CEI	RCLA:		
			Listed
	65-85-0	Benzoic acid	Not

65-85-0	Benzoic acid	Listed	5000

RCRA: Not determined.

Section 112(r) of the Clean Air Act (CAA): Not determined.

Massachusetts Right to Know: 65-85-0 Benzoic acid

		25/12/16/16	
Ne	w Jersey Right to K	now:	
	65-85-0	Benzoic acid	Listed

Listed

New York Right to Know:

ISE OF O IPonzoic acid	11:04001
l65-85-0 Benzoic acid	
103-03-0 IDENZOIC ACIU	ILISTEU

Pennsylvania Right to Know:

65-85-0 Benzoic acid	Listed
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According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.12.2018 Page 8 of 8

Benzoic Acid

California Proposition 65: None of the ingredients are listed.

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: 2-0-0 **HMIS:** 2-0-0

Initial preparation date: 02.12.2018

End of Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.19.2018 Page 1 of 8

Oxalic Acid

SECTION 1: Identification

Product identifier

Product name: Oxalic Acid Product code: KEMOX3005-H

Recommended use of the product and restriction on use

Relevant identified uses: Not determined or not applicable. **Uses advised against:** Not determined or not applicable.

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

Manufacturer or supplier details

Manufacturer: Supplier:

AquaPhoenix Scientific AquaPhoenix Scientific Inc.

860 Gitts Run Road 860 Gitts Run Road

Hanover PA 17331 PA 17331 (717) 632-1291 (717) 632-1291

Emergency telephone number:

United States

Emergency Telephone No.: 800-255-3924

SECTION 2: Hazard(s) identification

GHS classification:

Acute toxicity (oral), category 4 Acute toxicity (dermal), category 4 Serious eye damage, category 1

Label elements

Hazard pictograms:





Signal word: Danger **Hazard statements:**

H302 Harmful if swallowed

H312 Harmful in contact with skin

H318 Causes serious eye damage

Precautionary statements:

P264 Wash skin thoroughly after handling

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

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

P301+P330+P312 IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

P322 Specific measures (see supplemental first aid instructions on this label)

P363 Wash contaminated clothing before reuse

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

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Oxalic Acid

P302+P352+P312 If on skin: Wash with soap and water. Call a poison center or doctor/physician if you feel unwell

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. P405 Store locked up

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: 6153-56-6	Oxalic acid, dihydrate	100

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:

Not determined or not applicable.

After inhalation:

Loosen clothing as necessary and position individual in a comfortable position Maintain an unobstructed airway

After skin contact:

Rinse affected area with soap and water

If symptoms develop or persist, seek medical attention

Wash affected area with soap and water

Seek medical attention if symptoms develop or persist

After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes

If symptoms develop or persist, seek medical attention

Remove contact lens(es) if able to do so during rinsing

Immediately call a POISON CONTROL CENTER or seek medical attention

After swallowing:

Rinse mouth thoroughly

Seek medical attention if irritation, discomfort, or vomiting persists

Call a POISON CONTROL CENTER or seek medical attention if you feel unwell

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 applicable.

Delayed symptoms and effects:

Not determined or not applicable.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not applicable.

Notes for the doctor:

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.19.2018 Page 3 of 8

Oxalic Acid

Not determined or not applicable.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

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:

Ensure adequate ventilation

Ensure air handling systems are operational

Wear protective eye wear, gloves and clothing

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

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.

Conditions for safe storage, including any incompatibilities:

Store in a cool, well-ventilated area.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

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

Biological limit values:

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

Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

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Oxalic Acid

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

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

Appearance	Crystalline
Odor	Odorless
Odor threshold	Not determined or not available.
рН	1 at 126.1 g/l at 25°C (77°F)
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	Not determined or not available.
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	< 0.01 hPa (< 0.01 mmHg) at 20°C (68°F)
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	Not determined or not available.
Solubilities	ca.126.1 g/l at 20°C (68°F)
Partition coefficient (n-octanol/water)	log Pow: -0.81
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:

Does not react under normal conditions of use and storage.

Chemical stability:

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.19.2018 Page 5 of 8

Oxalic Acid

Stable under normal conditions of use and storage.

Possibility of hazardous reactions:

None under normal conditions of use and storage.

Conditions to avoid:

None known.

Incompatible materials:

None known.

Hazardous decomposition products:

None known.

SECTION 11: Toxicological information

Acute toxicity

Assessment: Harmful if swallowed Harmful in contact with skin

Product data: No data available.

Substance data: No data available.

Skin corrosion/irritation

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

Product data: No data available. **Substance data:** No data available.

Serious eye damage/irritation

Assessment: Causes serious eye damage

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.

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

Product data: No data available.

Substance data: No data available.

Specific target organ toxicity (repeated exposure)

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

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.19.2018 Page 6 of 8

Oxalic Acid

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

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

United States Transportation of dangerous goods (49 CFR DOT)

UN number UN3261

UN proper shipping name Corrosive solid, acidic, organic, n.o.s. (Oxalic acid dihydrate)

UN transport hazard class(es) 8

Packing group II
Environm I hazards None

Special p

Internatio I Maritime Dangerous Goods (IMDG)

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.19.2018 Page 7 of 8

Oxalic Acid

UN number	UN3261
UN proper shipping name	Corrosive solid, acidic, organic, n.o.s. (Oxalic acid dihydrate)
UN transport hazard class(es)	8
Packing group	II
Environmental hazards	None
Special precautions for user	None

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

UN number	UN3261
UN proper shipping name	Corrosive solid, acidic, organic, n.o.s. (Oxalic acid dihydrate)
UN transport hazard class(es)	8
Packing group	II
Environmental hazards	None
Special precautions for user	None

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

6153-56-6	Oxalic acid, dihydrate	Not	
		Listed	

Significant New Use Rule (TSCA Section 5): Not determined.

Export notification under TSCA Section 12(b): Not determined.

SARA Section 311/312 hazards:

Acute	Chronic	Fire	Pressure	Reactive
No	No	No	No	No

SARA Section 302 extremely hazardous substances: Not determined.

SARA Section 313 toxic chemicals:

6153-56-6	Oxalic acid, dihydrate	Not
		Listed

CERCLA: Not determined. **RCRA:** Not determined.

Section 112(r) of the Clean Air Act (CAA): Not determined.

Massachusetts Right to Know:

6153-56-6 Oxalic acid, dihydrate Listed				
New Jersey Right to Know:				
6153-56-6 Oxalic acid, dihydrate Liste				

New York Right to Know:

6153-56-6	Oxalic acid, dihydrate	Listed
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Pennsylvania Right to Know:

6153-56-6 Oxalic acid, dihydrate Listed

California Proposition 65: None of the ingredients are listed.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.19.2018 Page 8 of 8

Oxalic Acid

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: 3-0-0 **HMIS:** 3-0-0-X

Initial preparation date: 01.19.2018

End of Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.19.2018 Page 1 of 8

Potassium Acid Phthalate

SECTION 1: Identification

Product identifier

Product name: Potassium Acid Phthalate

Product code: KEMPA3000-H

Recommended use of the product and restriction on use

Relevant identified uses: Not determined or not applicable. **Uses advised against:** Not determined or not applicable.

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

Manufacturer or supplier details

Manufacturer: Supplier:

AquaPhoenix Scientific AquaPhoenix Scientific Inc.

860 Gitts Run Road 860 Gitts Run Road

Hanover PA 17331 PA 17331 (717) 632-1291 (717) 632-1291

Emergency telephone number:

United States

Emergency Telephone No.: 800-255-3924

SECTION 2: Hazard(s) identification

GHS classification:

Combustible dust

Skin irritation, category 2

Eye irritation, category 2A

Specific target organ toxicity - single exposure, category 3, respiratory irritation

Label elements

Hazard pictograms:



Signal word: Warning

Hazard statements:

H900 May form combustible dust concentrations in air

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

Precautionary statements:

P264 W Iv after handling

P280 W loves/protective clothing/eye protection/face protection

P261 Av

P271 Us Iy outdoors or in a well-ventilated area

P321 Sp lemental first aid instructions on this label).

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.19.2018 Page 2 of 8

Potassium Acid Phthalate

P362 Take off contaminated clothing and wash before reuse

P302+P352 If on skin: Wash with soap and water

P332+P313 If skin irritation occurs: Get medical advice/attention

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if

present and easy to do. Continue rinsing

P304+P340+P312 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell

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: 877-24-7	Potassium acid phthalate	100

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:

Not determined or not applicable.

After inhalation:

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

Move exposed individual to fresh air

Call a POISON CONTROL CENTER or seek medical attention if you feel unwell

After skin contact:

Rinse affected area with soap and water

If symptoms develop or persist, seek medical attention

Wash affected area with soap and water

Seek medical attention if symptoms develop or persist

After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes

If symptoms develop or persist, seek medical attention

Remove contact lens(es) if able to do so during rinsing

Seek medical attention if irritation persists or if concerned

After swallowing:

Rinse mouth thoroughly

Seek medical attention if irritation, discomfort, or vomiting persists

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Not determined or not applicable.

Delayed symptoms and effects:

Not determined or not applicable.

Immediate medical attention and special treatment

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

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Potassium Acid Phthalate

Specific treatment:

Not determined or not applicable.

Notes for the doctor:

Not determined or not applicable.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

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:

Ensure adequate ventilation

Ensure air handling systems are operational

Wear protective eye wear, gloves and clothing

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

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.

Conditions for safe storage, including any incompatibilities:

Store in a cool, well-ventilated area.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

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

Biological limit values:

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

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.19.2018 Page 4 of 8

Potassium Acid Phthalate

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.

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

Appearance	White solid
Odor	Odorless
Odor threshold	Not determined or not available.
рН	3.8 - 4 (5% aq. Sol.)
Melting point/freezing point	295 - 300°C
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	Not determined or not available.
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	1.636 g/cm ³
Solubilities	Soluble in water.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.19.2018 Page 5 of 8

Potassium Acid Phthalate

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:

Incompatible Materials. Excess heat, dust formation.

Incompatible materials:

Strong acids. Strong bases. Nitric acid. Strong oxidizers.

Hazardous decomposition products:

Oxides of potassium, potassium fume.

SECTION 11: Toxicological information

Acute toxicity

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

Product data: No data available.

Substance data: No data available.

Skin corrosion/irritation

Assessment: Causes skin irritation Product data: No data available. Substance data: No data available.

Serious eye damage/irritation

Assessment: Causes serious eye irritation

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.

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: May cause respiratory irritation

Product data: No data available.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.19.2018 Page 6 of 8

Potassium Acid Phthalate

Substance data: No data available.

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

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

United States Transportation of dangerous goods (49 CFR DOT)

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

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.19.2018 Page 7 of 8

Potassium Acid Phthalate

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

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

877-24-7	Potassium acid phthalate	Listed	
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Significant New Use Rule (TSCA Section 5): Not determined.

Export notification under TSCA Section 12(b): Not determined.

SARA Section 311/312 hazards:

Acute	Chronic	Fire	Pressure	Reactive
No	No	No	No	No

SARA Section 302 extremely hazardous substances: Not determined.

SARA Section 313 toxic chemicals:

877-24-7	Potassium acid phthalate	Not	
		Listed	

CERCLA: Not determined. **RCRA:** Not determined.

Section 112(r) of the Clean Air Act (CAA): Not determined.

Massachusetts Right to Know:

877-24-7	Potassium acid phthalate	Not
		Listed

New Jersey Right to Know:

877-24-7	Potassium acid phthalate	Not
		Listed

New York Right to Know:

877-24-7	Potassium acid phthalate	Not	
		Listed	

Pennsylvania Right to Know:

877-24-7	Potassium acid phthalate	Not
		Listed

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.19.2018 Page 8 of 8

Potassium Acid Phthalate

California Proposition 65: None of the ingredients are listed.

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: 2-0-0 **HMIS:** 2-0-0-X

Initial preparation date: 01.19.2018

End of Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 05.12.2017 Page 1 of 10

Phenolphthalein Indicator

SECTION 1: Identification

Product identifier

Product name: Phenolphthalein Indicator

Product code: KEMPH1801-A

Recommended use of the product and restriction on use

Relevant identified uses: Laboratory

Uses advised against: Not determined or not applicable.

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

Manufacturer or supplier details

Manufacturer: Supplier: United States

AquaPhoenix Scientific AquaPhoenix Scientific Inc.

860 Gitts Run Road 860 Gitts Run Road

Hanover PA 17331 PA 17331 (717) 632-1291 (717) 632-1291

Emergency telephone number:

United States

Emergency Telephone No.: 800-255-3924

SECTION 2: Hazard(s) identification

GHS classification:

Flammable liquids, category 2

Eye irritation, category 2A

Specific target organ toxicity - single exposure, category 3, central nervous system

Carcinogenicity, category 1B

Germ cell mutagenicity, category 2

Reproductive toxicity, category 2

Label elements

Hazard pictograms:







Signal word: Danger

Hazard statements:

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H350 May cause cancer.

H341 Suspected of causing genetic defects.

H361 Suspected of damaging fertility or the unborn child.

Precautionary statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P240 Ground/bond container and receiving equipment.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 05.12.2017 Page 2 of 10

Phenolphthalein Indicator

P241 Use explosion-proof electrical/ventilating/light/equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

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

P264 Wash skin thoroughly after handling.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P271 Use only outdoors or in a well-ventilated area.

P233 Keep container tightly closed.

P303+P361+P353 If on skin (or hair): Immediately remove/take off all contaminated clothing. Rinse skin with water/shower.

P370+P378 In case of fire: Use agents recommended in section 5 for extinction.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P304+P340+P312 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

P308+P313 If exposed or concerned: Get medical advice/attention.

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: 67-63-0	Isopropyl Alcohol	50
CAS number: 7732-18-5	Water	50
CAS number: 77-09-8	Phenolphthalein	1

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:

Not determined or not applicable.

After inhalation:

Loosen clothing as necessary and position individual in a comfortable position Maintain an unobstructed airway

After skin contact:

Rinse affected area with soap and water

If symptoms develop or persist, seek medical attention

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

Seek medical attention if irritation persists or if concerned

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 05.12.2017 Page 3 of 10

Phenolphthalein Indicator

After swallowing:

Rinse mouth thoroughly

Seek medical attention if irritation, discomfort, or vomiting persists

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Not determined or not applicable.

Delayed symptoms and effects:

Not determined or not applicable.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not applicable.

Notes for the doctor:

Not determined or not applicable.

SECTION 5: Firefighting 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:

Ensure adequate ventilation

Ensure air handling systems are operational

Beware of vapors accumulating to form explosive concentrations

Vapors can accumulate in low areas

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.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

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Phenolphthalein Indicator

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	Isopropyl Alcohol	67-63-0	ACGIH TLV STEL 400 ppm
	Isopropyl Alcohol	67-63-0	ACGIH TLV TWA 200 ppm
NIOSH	Isopropyl Alcohol	67-63-0	NIOSH IDLH 2,000 ppm
	Isopropyl Alcohol	67-63-0	NIOSH STEL 500 ppm, 1,225 mg/m ³
	Isopropyl Alcohol	67-63-0	NIOSH TWA 400 ppm, 980 mg/m ³
United States (OSHA)	Isopropyl Alcohol	67-63-0	OSHA PEL TWA 400 ppm, 980 mg/m ³

Biological limit values:

Substance	Identifier	Determinant	Sampling time	Permissible limits
Isopropyl Alcohol	67-63-0		End of shift at end of workweek.	40 mg/L

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:

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 05.12.2017 Page 5 of 10

Phenolphthalein Indicator

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

Appearance	Clear, colorless liquid
Odor	Mild Alcohol
Odor threshold	Not available
рН	Not available
Melting point/freezing point	88 °C
Initial boiling point/range	Approx. 82 °C
Flash point (closed cup)	Not available
Evaporation rate	2.88
Flammability (solid, gas)	Not available
Upper flammability/explosive limit	Not available
Lower flammability/explosive limit	Not available
Vapor pressure	40 mmHG
Vapor density	2.1
Density	Not available
Relative density	0.85 - 0.95
Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	Not available
Auto/Self-ignition temperature	Not available
Decomposition temperature	Not available
Dynamic viscosity	Not available
Kinematic viscosity	Not available
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

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.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 05.12.2017 Page 6 of 10

Phenolphthalein Indicator

SECTION 11: Toxicological information

Acute toxicity

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

Product data: No data available.

Substance data: No data available.

Skin corrosion/irritation

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

Product data: No data available.

Substance data: No data available.

Serious eye damage/irritation

Assessment: Causes serious eye irritation

Product data: No data available.

Substance data:

Name	Result
Isopropyl Alcohol	Causes serious eye irritation.

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: May cause cancer **Product data:** No data available.

Substance data:

Name	Species	Result
Phenolphthalein	Phenolphthalein	May cause cancer.

International Agency for Research on Cancer (IARC):

Name	Classification
Isopropyl Alcohol	Group 3 - Not classifiable as to its carcinogenicity to humans
Phenolphthalein	Group 2B - Possibly carcinogenic to humans

National Toxicology Program (NTP):

Name	Classification
Phenolphthalein	Reasonably anticipated to be human carcinogens

Germ cell mutagenicity

Assessment: Suspected of causing genetic defects

Product data: No data available.

Substance data:

Name	Result
Phenolphthalein	Suspected of causing genetic defects.

Reproductive toxicity

Assessment: Suspected of damaging fertility or the unborn child

Product data: No data available.

Substance data:

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

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Phenolphthalein Indicator

Name	Result	
Phenolphthalein	Suspected of damaging fertility or the unborn child.	

Specific target organ toxicity (single exposure)

Assessment: May cause drowsiness or dizziness

Product data: No data available.

Substance data:

Name	Result	
1	Specific Target Organ Toxicity, Single Exposure - May cause drowsiness or dizziness.	

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

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

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 05.12.2017 Page 8 of 10

Phenolphthalein Indicator

United States Transportation of dangerous goods (49 CFR DOT)

UN number	1993	
UN proper shipping name	Flammable Liquids, N.O.S., (Isopropanol Solution)	
UN transport hazard class(es)	3	13
Packing group	II	
Environmental hazards	None	·
Special precautions for user	None	

International Maritime Dangerous Goods (IMDG)

UN number	1993	
UN proper shipping name	Flammable Liquids, N.O.S., (Isopropanol Solution)	
UN transport hazard class(es)	3	
Packing group	II	
Environmental hazards	None	
Special precautions for user	None	

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

UN number	1993		
UN proper shipping name	Flammable Liquids, N.O.S., (Isopropanol Solution)	Flammable Liquids, N.O.S., (Isopropanol Solution)	
UN transport hazard class(es)	3	(LIMMODIZ LOCK)	
Packing group	II		
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			

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

67-63-0	Isopropyl Alcohol	Listed
77-09-8	Phenolphthalein	Listed
7732-18-5	Water	Listed

Significant New Use Rule (TSCA Section 5): Not determined. **Export notification under TSCA Section 12(b):** Not determined.

SARA Section 311/312 hazards:

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 05.12.2017 Page 9 of 10

Phenolphthalein Indicator

Acute	Chronic	Fire	Pressure	Reactive
No	No	No	No	No

SARA Section 302 extremely hazardous substances: Not determined.

SARA Section 313 toxic chemicals:

67-63-0	Isopropyl Alcohol	Listed
77-09-8	Phenolphthalein	Listed

CERCLA: Not determined. **RCRA:** Not determined.

Section 112(r) of the Clean Air Act (CAA): Not determined.

Massachusetts Right to Know:

34722-90-2	Bromothymol Blue, Sodium Salt	Not Listed
67-63-0	Isopropyl Alcohol	Listed
77-09-8	Phenolphthalein	Not Listed
7732-18-5	Water	Not Listed
1336-21-6	Ammonium Hydroxide	Listed

New Jersey Right to Know:

34722-90-2	Bromothymol Blue, Sodium Salt	Not Listed
67-63-0	Isopropyl Alcohol	Listed
77-09-8	Phenolphthalein	Listed
7732-18-5	Water	Not Listed
1336-21-6	Ammonium Hydroxide	Not Listed

New York Right to Know:

34722-90-2	Bromothymol Blue, Sodium Salt	Not Listed
67-63-0	Isopropyl Alcohol	Listed
77-09-8	Phenolphthalein	Not Listed
7732-18-5	Water	Not Listed
1336-21-6	Ammonium Hydroxide	Listed

Pennsylvania Right to Know:

34722-90-2	Bromothymol Blue, Sodium Salt	Not Listed
67-63-0	Isopropyl Alcohol	Listed
77-09-8	Phenolphthalein	Not Listed
7732-18-5	Water	Not Listed
1336-21-6	Ammonium Hydroxide	Listed

California Proposition 65:

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 05.12.2017 Page 10 of 10

Phenolphthalein Indicator

WARNING: This product contains a chemical known to the State of California to cause cancer.

77-09-8 Phenolphthalein

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: 2-2-0 **HMIS:** 2-2-0

Initial preparation date: 05.12.2017

End of Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.26.2018 Page 1 of 8

Potassium Bisulfate Reagent

SECTION 1: Identification

Product identifier

Product name: Potassium Bisulfate Reagent

Product code: KEMPS7000-H

Recommended use of the product and restriction on use

Relevant identified uses: Not determined or not applicable. **Uses advised against:** Not determined or not applicable.

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

Manufacturer or supplier details

Manufacturer: Supplier:

AquaPhoenix Scientific AquaPhoenix Scientific Inc.

860 Gitts Run Road 860 Gitts Run Road

Hanover PA 17331 PA 17331 (717) 632-1291 (717) 632-1291

Emergency telephone number:

United States

Emergency Telephone No.: 800-255-3924

SECTION 2: Hazard(s) identification

GHS classification:

Skin corrosion, category 1B

Specific target organ toxicity - single exposure, category 3, respiratory irritation

Label elements

Hazard pictograms:





Signal word: Danger Hazard statements:

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

Precautionary statements:

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash skin thoroughly after handling.

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

P233 Keep container tightly closed.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P271 Use only outdoors or in a well-ventilated area.

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.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

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Potassium Bisulfate Reagent

P363 Wash contaminated clothing before reuse

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P310 Immediately call a POISON CENTER or doctor/physician.

P321 Specific treatment (see supplemental first aid instruction on this label).

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P405 Store locked up.

P403+P233 Store in a well ventilated place. Keep container tightly closed.

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

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 7646-93-7	Potassium hydrogen sulphate	>98

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:

Not determined or not applicable.

After inhalation:

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

Move exposed individual to fresh air

Immediately call a POISON CONTROL CENTER or seek medical attention

After skin contact:

Rinse affected area with soap and water

If symptoms develop or persist, seek medical attention

Immediately remove all contaminated clothing

Wash affected area with soap and water

Immediately call a POISON CONTROL CENTER or seek medical attention

After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes

If symptoms develop or persist, seek medical attention

Remove contact lens(es) if able to do so during rinsing

Immediately call a POISON CONTROL CENTER or seek medical attention

After swallowing:

Rinse mouth thoroughly

Seek medical attention if irritation, discomfort, or vomiting persists

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 applicable.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

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Potassium Bisulfate Reagent

Delayed symptoms and effects:

Not determined or not applicable.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not applicable.

Notes for the doctor:

Not determined or not applicable.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

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:

Ensure adequate ventilation

Ensure air handling systems are operational

Wear protective eye wear, gloves and clothing

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

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.

Conditions for safe storage, including any incompatibilities:

Store in a cool, well-ventilated area.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.26.2018 Page 4 of 8

Potassium Bisulfate Reagent

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

Biological limit values:

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

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.

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

Appearance	Solid.
Odor	Odorless.
Odor threshold	Not determined or not available.
рН	1 at 20 °C (50g/L aq. sol.)
Melting point/freezing point	214 °C
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	Not determined or not available.
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	2.32 g/cm³ at 25 °C
Solubilities	Soluble in water.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.26.2018 Page 5 of 8

Potassium Bisulfate Reagent

Other information

SECTION 10: Stability and reactivity

Reactivity:

Does not react under normal conditions of use and storage.

Chemical stability:

Hygroscopic.

Possibility of hazardous reactions:

None under normal conditions of use and storage.

Conditions to avoid:

Avoid dust generation. Incompatible materials. Moisture sensitive.

Incompatible materials:

Strong bases. Strong oxidizing agents. Alcohols.

Hazardous decomposition products:

Sulphur oxides. Potassium oxides.

SECTION 11: Toxicological information

Acute toxicity

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

Product data: No data available.

Substance data: No data available.

Skin corrosion/irritation

Assessment: Causes severe skin burns and eye damage

Product data: No data available.

Substance data: No data available.

Serious eye damage/irritation

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

Product data: No data available.

Substance data:

Name	Result
Potassium hydrogen sulphate	Causes severe skin burns and eye damage.

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.

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

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.26.2018 Page 6 of 8

Potassium Bisulfate Reagent

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: May cause respiratory irritation

Product data: No data available.

Substance data:

Name	Result
Potassium hydrogen sulphate	May cause respiratory irritation.

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

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

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

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Potassium Bisulfate Reagent

United States Transportation of dangerous goods (49 CFR DOT)

UN number	2509		
UN proper shipping name	POTASSIUM HYDROGEN SULPHATE	POTASSIUM HYDROGEN SULPHATE	
UN transport hazard class(es)	8	CORROSIVE	
Packing group	II		
Environmental hazards	None		
Special precautions for user	None		
Excepted quantities	30 g/30 ml		
Passenger air/rail	15KG		
Cargo aircraft only	50KG		
Stowage category	A		

International Maritime Dangerous Goods (IMDG)

UN number	2509	
UN proper shipping name	POTASSIUM HYDROGEN SULPHATE	
UN transport hazard class(es)	8 CONTROSPE	
Packing group	II.	
Environmental hazards	None	
Special precautions for user	None	
Excepted quantities	30 g/30 ml	
Limited quantity	1KG	

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

UN number	2509	
UN proper shipping name	POTASSIUM HYDROGEN SULPHATE	
UN transport hazard class(es)	8	
Packing group	II .	
Environmental hazards	None	
Special precautions for user	None	
ERG code	154	
Excepted quantities	30 g/30 ml	
Passenger and cargo	15KG	
Cargo aircraft only	50KG	
Limited quantity	1KG	

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

7646-93-7	Potassium hydrogen sulphate	Listed
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According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.26.2018 Page 8 of 8

Potassium Bisulfate Reagent

Significant New Use Rule (TSCA Section 5): Not determined. Export notification under TSCA Section 12(b): Not determined.

SARA Section 311/312 hazards:

Acute	Chronic	Fire	Pressure	Reactive
No	No	No	No	No

SARA Section 302 extremely hazardous substances: Not determined.

SARA Section 313 toxic chemicals:

7646-93-7	Potassium hydrogen sulphate	Not	
		Listed	

CERCLA: Not determined. **RCRA:** Not determined.

Section 112(r) of the Clean Air Act (CAA): Not determined.

Massachusetts Right to Know:

7646-93-7	Potassium hydrogen sulphate	Not
		Listed

New Jersey Right to Know:

7646-93-7	Potassium hydrogen sulphate	Listed	

New York Right to Know:

7646-93-7	Potassium hydrogen sulphate	Listed
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Pennsylvania Right to Know:

7646-93-7	Potassium hydrogen sulphate	Not
		Listed

California Proposition 65: None of the ingredients are listed.

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: 3-0-1 **HMIS:** 3-0-1

Initial preparation date: 02.26.2018

End of Safety Data Sheet

P310

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.25.2017 Page 1 of 8

Sodium Hydroxide, 1.0N

SECTION 1: Identification

Product identifier

Product name: Sodium Hydroxide, 1.0N

Product code: KEMSH6255-B

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: Supplier: United States

AquaPhoenix Scientific AquaPhoenix Scientific Inc.

860 Gitts Run Road 860 Gitts Run Road

Hanover PA 17331 PA 17331 (717) 632-1291 (717) 632-1291

Emergency telephone number:

United States

Emergency Telephone No.: 800-255-3924

SECTION 2: Hazard(s) identification

GHS classification:

Serious eye damage, category 1 Skin corrosion, category 1A

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H318 Causes serious eye damage.

H314 Causes severe skin burns and eye damage.

Precautionary statements:

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

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash skin thoroughly after handling.

P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, i . Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

P321 Sp lemental first aid instructions on this label).

P363 W Iothing before reuse.

P304+P If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for

breathin. Immediately call a poison center or doctor/physician.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

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Sodium Hydroxide, 1.0N

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.

P405 Store locked up.

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: 1310-73-2	Sodium hydroxide	4
CAS number: 7732-18-5	Water	96

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:

Not determined or not applicable.

After inhalation:

Move exposed individual to fresh air

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

Immediately call a POISON CONTROL CENTER or seek medical attention

After skin contact:

Immediately remove all contaminated clothing

Wash affected area with soap and water

Immediately call a POISON CONTROL CENTER or seek medical attention

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 swallowing:

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 applicable.

Delayed symptoms and effects:

Not determined or not applicable.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not applicable.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.25.2017 Page 3 of 8

Sodium Hydroxide, 1.0N

Notes for the doctor:

Not determined or not applicable.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

Special protective equipment for firefighters:

Wear protective eye wear, gloves and clothing

Refer to Section 8

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

Special precautions:

Heating causes a rise in pressure, risk of bursting and combustion

Shut off sources of ignition

Carbon monoxide and carbon dioxide may form upon combustion

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation

Ensure air handling systems are operational

Wear protective eye wear, gloves and clothing

Environmental precautions:

Should not be released into the environment

Prevent from reaching drains, sewer or waterway

Methods and material for containment and cleaning up:

Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders)

Dispose of contents / container in accordance with local regulations

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 with adequate ventilation.

Conditions for safe storage, including any incompatibilities:

Store in a cool, well-ventilated area.

Store away from foodstuffs.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

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Sodium Hydroxide, 1.0N

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	Sodium hydroxide	1310-73-2	ACGIH TLV C 2.0 mg/m ³
United States (OSHA)	Sodium hydroxide	1310-73-2	OSHA PEL TWA 2.0 mg/m³
NIOSH	Sodium hydroxide	1310-73-2	NIOSH REL C 2.0 mg/m ³
	Sodium hydroxide	1310-73-2	NIOSH IDLH 10.0 mg/m ³

Biological limit values:

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

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.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

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.

Perform routine housekeeping.

Wash contaminated clothing before reusing.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear, colorless liquid
Odor	Odorless
Odor threshold	Not available
рН	13.3
Melting point/freezing point	Approx. 0°C
Initial boiling point/range	Approx. 100°C
Flash point (closed cup)	Not available
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Upper flammability/explosive limit	Not available
Lower flammability/explosive limit	Not available
Vapor pressure	14 mmHg at 20°C
Vapor density	>1
Density	Not available
Relative density	Approx. 1

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

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Sodium Hydroxide, 1.0N

Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	Not available
Auto/Self-ignition temperature	Not available
Decomposition temperature	Not available
Dynamic viscosity	Not available
Kinematic viscosity	Not available
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

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:

None known.

Incompatible materials:

None known.

Hazardous decomposition products:

None known.

SECTION 11: Toxicological information

Acute toxicity

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

Product data: No data available.

Substance data: No data available.

Skin corrosion/irritation

Assessment: Causes severe skin burns and eye damage

Product data: No data available.

Substance data:

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

Serious eye damage/irritation

Assessment: Causes serious eye damage

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.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.25.2017 Page 6 of 8

Sodium Hydroxide, 1.0N

Product data: No data available.

Substance data: No data available.

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

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

Product data: No data available. Substance data: No data available.

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

Product data: No data available.
Substance data: No data available.
Other adverse effects: No data available.

SECTION 13: Disposal considerations

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.25.2017 Page 7 of 8

Sodium Hydroxide, 1.0N

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

United States Transportation of dangerous goods (49 CFR DOT)

UN number	UN1824
UN proper shipping name	Sodium Hydroxide Solution
UN transport hazard class(es)	8
Packing group	II
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	UN1824	
UN proper shipping name	Sodium Hydroxide Solution	
UN transport hazard class(es)	8	
Packing group	II	
Environmental hazards	None	
Special precautions for user	None	

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

UN number	UN1824
UN proper shipping name	Sodium Hydroxide Solution
UN transport hazard class(es)	8
Packing group	II
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	

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

7732-18-5	Water	Listed
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According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.25.2017 Page 8 of 8

Sodium Hydroxide, 1.0N

1310-73-2	Sodium hydroxide	Listed

Significant New Use Rule (TSCA Section 5): Not determined.

Export notification under TSCA Section 12(b): Not determined.

SARA Section 311/312 hazards:

Acute	Chronic	Fire	Pressure	Reactive
No	No	No	No	No

SARA Section 302 extremely hazardous substances: Not determined.

SARA Section 313 toxic chemicals: Not determined.

CERCLA:

1310-73-2	Sodium hydroxide	Listed	1000
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RCRA: Not determined.

Section 112(r) of the Clean Air Act (CAA): Not determined.

Massachusetts Right to Know:

1310-73-2	Sodium hydroxide	Listed
7732-18-5		Not Listed

New Jersey Right to Know:

1310-73-2	Sodium hydroxide	Listed
7732-18-5	Water	Not
		Listed

New York Right to Know:

1310-73-2	Sodium hydroxide	Listed
7732-18-5	Water	Not
		Listed

Pennsylvania Right to Know:

1310-73-2	Sodium hydroxide	Listed
7732-18-5		Not
		Listed

California Proposition 65: 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: 3-0-1 HMIS: 3-0-1

Initial preparation date: 04.25.2017

End of Safety Data Sheet