

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations


Printing date: July 19, 2018

Revision: July 19, 2018

1 Identification

- **Product identifier**
- **Trade name: Hydrochloric Acid, 1.0N**
- **Product code:** KEMHA6141-C
- **Recommended use and restriction on use**
- **Recommended use:** Industrial uses.
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
AquaPhoenix Scientific, Inc.
860 Gitts Run Road
Hanover, PA 17331
Phone: (717)632-1291
Toll-Free: (866)632-1291
info@aquaphoenixsci.com
- **Distributor:**
AquaPhoenix Scientific
860 Gitts Run Road
Hanover
PA 17331
(717) 632-1291
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924 (North America)
+1 (813)248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Met. Corr.1 H290 May be corrosive to metals.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Dam. 1 H318 Causes serious eye damage.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**

GHS05
- **Signal word:** Danger
- **Hazard statements:**
H290 May be corrosive to metals.
H315 Causes skin irritation.
H318 Causes serious eye damage.
- **Precautionary statements:**
P234 Keep only in original container.

(Cont'd. on page 2)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: July 19, 2018

Revision: July 19, 2018

Trade name: Hydrochloric Acid, 1.0N

(Cont'd. of page 1)



P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection.
P302+P352	If on skin: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a poison center/doctor.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P390	Absorb spillage to prevent material damage.
P406	Store in corrosive resistant container with a resistant inner liner.

· **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

7732-18-5	Water	>90%
7647-01-0	hydrochloric acid	<10%
	 Met. Corr. 1, H290; Skin Corr. 1B, H314; Eye Dam. 1, H318  Acute Tox. 4, H302; STOT SE 3, H335	

· **Additional information:**

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.
For the wording of the listed Hazard Statements, refer to section 16.

4 First-aid measures

· **Description of first aid measures**

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

Immediately rinse with water.

Seek medical treatment in case of complaints.

Seek immediate medical help for blistering or open wounds.

· **After eye contact:**

Protect unharmed eye.

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

· **Most important symptoms and effects, both acute and delayed:**

Irritant to skin and mucous membranes.

Causes eye irritation.

Gastric or intestinal disorders when ingested.

· **Danger:** Causes serious eye damage.

· **Indication of any immediate medical attention and special treatment needed:**

If medical advice is needed, have product container or label at hand.

(Cont'd. on page 3)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: July 19, 2018

Revision: July 19, 2018

Trade name: Hydrochloric Acid, 1.0N

(Cont'd. of page 2)

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
The product is not flammable.
Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation.
For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Methods and material for containment and cleaning up**
Use limestone to neutralize and/or absorb spill.
Send for recovery or disposal in suitable receptacles.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
Avoid splashes or spray in enclosed areas.
Use only in well ventilated areas.
Avoid breathing mist, vapors, or spray.
Avoid contact with the eyes and skin.
Open and handle receptacle with care.
- **Information about protection against explosions and fires:**
During heating or in case of fire poisonous gases are produced.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:**
Avoid storage near extreme heat.
Store only in the original receptacle.
Unsuitable material for receptacle: aluminium.

(Cont'd. on page 4)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: July 19, 2018

Revision: July 19, 2018

Trade name: Hydrochloric Acid, 1.0N

(Cont'd. of page 3)

- Store in cool, dry conditions in well sealed receptacles.
- **Information about storage in one common storage facility:**
 - Store away from foodstuffs.
 - Do not store together with alkalis (caustic solutions).
 - Store away from metals.
- **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

· Control parameters

· Components with limit values that require monitoring at the workplace:

7647-01-0 hydrochloric acid

PEL (USA)	Ceiling limit value: 7 mg/m ³ , 5 ppm
REL (USA)	Ceiling limit value: 7 mg/m ³ , 5 ppm
TLV (USA)	Ceiling limit value: 2.98 mg/m ³ , 2 ppm
EL (Canada)	Ceiling limit value: 2 ppm
EV (Canada)	Ceiling limit value: 2 ppm
LMPE (Mexico)	Ceiling limit value: 2 ppm
	A4

· Exposure controls

· General protective and hygienic measures:

- The usual precautionary measures for handling chemicals should be followed.
- Keep away from foodstuffs, beverages and feed.
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes and skin.
- Avoid breathing mist, vapors, or spray.

· Engineering controls: Provide adequate ventilation.

· Protection of hands:



Protective gloves

· Material of gloves

- Butyl rubber, BR
- Nitrile rubber, NBR
- Neoprene gloves
- Laminated film gloves.
- Fluorocarbon rubber (Viton)

· Eye protection:



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- **Body protection:** Acid resistant protective clothing.
- **Limitation and supervision of exposure into the environment**
No relevant information available.

(Cont'd. on page 5)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: July 19, 2018

Revision: July 19, 2018

Trade name: Hydrochloric Acid, 1.0N

(Cont'd. of page 4)

· **Risk management measures** No relevant information available.

9 Physical and chemical properties

· Information on basic physical and chemical properties

· Appearance:

Form: Liquid
Color: Colorless

· Odor: Acrid

· Odor threshold: Not determined.

· pH-value at 20 °C (68 °F): <1

· Melting point/Melting range: -5 °C (23 °F)

· Boiling point/Boiling range: ~101 °C (~213.8 °F)

· Flash point: The product is not flammable.

· Flammability (solid, gaseous): Not applicable.

· Auto-ignition temperature: Not determined.

· Decomposition temperature: Not determined.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits

Lower: Not determined.

Upper: Not determined.

· Oxidizing properties: Not determined.

· Vapor pressure at 20 °C (68 °F): 23 hPa (17.3 mm Hg)

· Density:

Relative density: 1.01-1.03

Vapor density: Not determined.

Evaporation rate: Not determined.

· Solubility in / Miscibility with

Water: Fully miscible.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity

Dynamic: Not determined.

Kinematic: Not determined.

· Other information: No relevant information available.

10 Stability and reactivity

· **Reactivity:** Corrosive action on metals.

· **Chemical stability:** Stable under normal temperatures and pressures.

· **Thermal decomposition / conditions to be avoided:**

(Cont'd. on page 6)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: July 19, 2018

Revision: July 19, 2018

Trade name: Hydrochloric Acid, 1.0N

(Cont'd. of page 5)

- No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
 Reacts with metals forming hydrogen.
 Reacts with alkali (lyes).
 Toxic fumes may be released if heated above the decomposition point.
- **Conditions to avoid** Excessive heat.
- **Incompatible materials**
 Alkalis
 Metals.
- **Hazardous decomposition products**
 Hydrogen, when reacted with metals.
 Under fire conditions only:
 Chlorine compounds

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:** Irritant to skin and mucous membranes.
- **On the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** Based on available data, the classification criteria are not met.

• **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

• **NTP (National Toxicology Program):**

None of the ingredients are listed.

• **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

• **Probable route(s) of exposure:**

Ingestion.
 Inhalation.
 Eye contact.
 Skin contact.

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.

(Cont'd. on page 7)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: July 19, 2018

Revision: July 19, 2018

Trade name: Hydrochloric Acid, 1.0N


(Cont'd. of page 6)

- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. If the dilution of the use-level pH-value is considerably increased after use, the aqueous waste, emptied into drains, is only low water-dangerous.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Dilute concentrate with water and neutralize afterwards with suitable material (lime or chalk). The formed salts are inert and pose little hazard.
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|---|-------------------|
| · UN-Number | |
| · DOT, ADR, IMDG, IATA | UN1789 |
| · UN proper shipping name | |
| · DOT, IATA | Hydrochloric acid |
| · ADR, IMDG | HYDROCHLORIC ACID |
| · Transport hazard class(es) | |
| · DOT | |
|  | |
| · Class | 8 |
| · Label | 8 |

(Cont'd. on page 8)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: July 19, 2018

Revision: July 19, 2018

Trade name: Hydrochloric Acid, 1.0N

(Cont'd. of page 7)

· **ADR**



· **Class** 8 (C1)
 · **Label** 8

· **IMDG, IATA**



· **Class** 8
 · **Label** 8

· **Packing group**

· **DOT, ADR, IMDG, IATA** III

· **Environmental hazards**

· **Marine pollutant:** No

· **Special precautions for user**

Warning: Corrosive substances

· **Danger code (Kemler):**

80

· **EMS Number:**

F-A,S-B

· **Segregation groups**

Acids

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

Not applicable.

· **Transport/Additional information:**

· **DOT** See 173.154(d) for corrosive exceptions.

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **United States (USA)**

· **SARA**

· **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 355 (extremely hazardous substances):**

7647-01-0 | hydrochloric acid

· **Section 313 (Specific toxic chemical listings):**

7647-01-0 | hydrochloric acid

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

(Cont'd. on page 9)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: July 19, 2018

Revision: July 19, 2018

Trade name: Hydrochloric Acid, 1.0N

(Cont'd. of page 8)

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

· **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

· **Canadian Domestic Substances List (DSL) (Substances not listed.):**

7647-01-0	hydrochloric acid
7732-18-5	Water

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulable, Toxic

vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health Administration

Met. Corr. 1: Corrosive to metals – Category 1

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· **Sources**

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaassen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

(Cont'd. on page 10)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: July 19, 2018

Revision: July 19, 2018

Trade name: Hydrochloric Acid, 1.0N

(Cont'd. of page 9)

ChemTel Inc.
1305 North Florida Avenue
Tampa, Florida USA 33602-2902
Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
Website: www.chemtelinc.com

Safety Data Sheet

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

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.19.2018

Page 3 of 8

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).

Safety Data Sheet

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.
pH	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

Safety Data Sheet

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.

Safety Data Sheet

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

Safety Data Sheet

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
----------	--------------------------	--------

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
----------	--------------------------	------------

Safety Data Sheet

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

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:

United States

AquaPhoenix Scientific

860 Gitts Run Road

Hanover

PA 17331

(717) 632-1291

Supplier:

United States

AquaPhoenix Scientific Inc.

860 Gitts Run Road

Hanover

PA 17331

(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.

Safety Data Sheet

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

Safety Data Sheet

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.

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 05.12.2017

Page 4 of 10

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	Acetone	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:

Safety Data Sheet

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
pH	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.

Safety Data Sheet

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:

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 05.12.2017

Page 7 of 10

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
Isopropyl Alcohol	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

Safety Data Sheet


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 
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)
UN transport hazard class(es)	3 
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:

Safety Data Sheet

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:

Safety Data Sheet

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

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.24.2017

Page 1 of 8

Sodium Hydroxide, 12.0N

SECTION 1: Identification

Product identifier

Product name: Sodium Hydroxide, 12.0N

Product code: KEMSH6330-D

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	United States
AquaPhoenix Scientific	AquaPhoenix Scientific Inc.
860 Gitts Run Road	860 Gitts Run Road
Hanover	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, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

P321 Spill or leak handling: See label for appropriate cleanup and disposal instructions (see supplemental first aid instructions on this label).

P363 Wipe up spills immediately. Do not reuse clothing before reuse.

P304+P340 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.

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.24.2017

Page 2 of 8

Sodium Hydroxide, 12.0N

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	<50
CAS number: 7732-18-5	Water	>50

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.

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.24.2017

Page 3 of 8

Sodium Hydroxide, 12.0N

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:

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.24.2017

Page 4 of 8

Sodium Hydroxide, 12.0N

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/m ³
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
pH	Alkaline
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

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.24.2017

Page 5 of 8

Sodium Hydroxide, 12.0N

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.

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.24.2017

Page 6 of 8

Sodium Hydroxide, 12.0N

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

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.24.2017

Page 7 of 8


Sodium Hydroxide, 12.0N

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
-----------	-------	--------

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.24.2017

Page 8 of 8

Sodium Hydroxide, 12.0N

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
-----------	------------------	--------	------

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	Water	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	Water	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: 04.24.2017

End of Safety Data Sheet