# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

**Initial preparation date:** 04.17.2017 

**Revision date:** 12.27.2017

## Acetic Acid, 25%v/v

## SECTION 1: Identification

### Product identifier

**Product name:** Acetic Acid, 25%v/v

**Product code:** KEMAA2195-B

### 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:** |
|---|---|
| **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:

Skin corrosion, category 1A

Serious eye damage, category 1

### Label elements

**Hazard pictograms:**

**Signal word:** Danger

### Hazard statements:

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

### 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.

P321 p lemental first aid instructions on this label).

P363 W lothing 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.

P301+P IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON

CENTER or doctor/physician.
P303+P361+P353+P310 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
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: 7732-18-5 | Water | 75 |
| CAS number: 64-19-7 | Acetic Acid | 25 |

**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.

**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

## Acetic Acid, 25%v/v

Only those substances with limit values have been included below.

**Occupational Exposure limit values:**

| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|---|---|---|---|
| ACGIH | Acetic Acid | 64-19-7 | ACGIH TLV TWA 10 ppm |
| | Acetic Acid | 64-19-7 | ACGIH TLV STEL 15 ppm |
| United States (OSHA) | Acetic Acid | 64-19-7 | OSHA PEL TWA 10 ppm |
| | Acetic Acid | 64-19-7 | OSHA PEL TWA 25 mg/m³ |
| NIOSH | Acetic Acid | 64-19-7 | NIOSH REL TWA 10 ppm |
| | Acetic Acid | 64-19-7 | NIOSH REL TWA 25 mg/m³ |
| | Acetic Acid | 64-19-7 | NIOSH REL ST 15 ppm |
| | Acetic Acid | 64-19-7 | NIOSH REL ST 37 mg/m³ |

**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** | Vinegar-like |
| **Odor threshold** | Not available |
| **pH** | Not available |
| **Melting point/freezing point** | Not available |
| **Initial boiling point/range** | 100-118 °C |
| **Flash point (closed cup)** | Not available |
| **Evaporation rate** | Not available |

## Acetic Acid, 25%v/v

| | |
|---|---|
| **Flammability (solid, gas)** | Not available |
| **Upper flammability/explosive limit** | Not available |
| **Lower flammability/explosive limit** | Not available |
| **Vapor pressure** | Not available |
| **Vapor density** | Not available |
| **Density** | Not available |
| **Relative density** | Not available |
| **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 |
|---|---|
| Acetic Acid | Causes severe skin burns and eye damage. |

**Serious eye damage/irritation**
**Assessment:** Causes serious eye damage

**Acetic Acid, 25%v/v**

**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.
**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** | UN 2790 |
| **UN proper shipping name** | Acetic acid solution |
| **UN transport hazard class(es)** | 8   |
| **Packing group** | III |
| **Environmental hazards** | None |
| **Special precautions for user** | None |

**International Maritime Dangerous Goods (IMDG)**

| | |
|---|---|
| **UN number** | UN 2790 |
| **UN proper shipping name** | Acetic acid solution |
| **UN transport hazard class(es)** | 8   |
| **Packing group** | III |
| **Environmental hazards** | None |
| **Special precautions for user** | None |

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

| | |
|---|---|
| **UN number** | UN 2790 |
| **UN proper shipping name** | Acetic acid solution |
| **UN transport hazard class(es)** | 8   |
| **Packing group** | III |
| **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 |
| 64-19-7 | Acetic Acid | 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:**

| | | | |
|---|---|---|---|
| 64-19-7 | Acetic Acid | Listed | 5000 |

**RCRA:** Not determined.

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

**Massachusetts Right to Know:**

| | | |
|---|---|---|
| 64-19-7 | Acetic Acid | Listed |
| 7732-18-5 | Water | Not Listed |

**New Jersey Right to Know:**

| | | |
|---|---|---|
| 64-19-7 | Acetic Acid | Not Listed |
| 7732-18-5 | Water | Not Listed |

**New York Right to Know:**

| | | |
|---|---|---|
| 64-19-7 | Acetic Acid | Listed |
| 7732-18-5 | Water | Not Listed |

**Pennsylvania Right to Know:**

| | | |
|---|---|---|
| 64-19-7 | Acetic Acid | Not 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:** 2-1-0
**HMIS:** 2-1-0
**Initial preparation date:** 04.17.2017
**Revision date:** 12.27.2017

**End of Safety Data Sheet**

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

**Initial preparation date:** 09.25.2017 

## Ammonium Chloride, ACS Grade

## SECTION 1: Identification

**Product identifier**

**Product name:** Ammonium Chloride, ACS Grade
**Product code:** KEMAC8235-E

**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<br>860 Gitts Run Road<br>Hanover<br>PA 17331<br>(717) 632-1291 | AquaPhoenix Scientific Inc.<br>860 Gitts Run Road<br>Hanover<br>PA 17331<br>(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
Eye irritation, category 2A

**Label elements**

**Hazard pictograms:**

**Signal word:** Warning

**Hazard statements:**

H319 Causes serious eye irritation
H302 Harmful if swallowed

**Precautionary statements:**

P280 Wear protective gloves/protective clothing/eye protection/face protection
P270 Do not eat, drink or smoke when using this product
P321 Specific treatment (see supplemental first aid instructions on this label).
P302+P352 If on skin: Wash with soap and water
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present . Continue rinsing
P301+P IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.
P405 St 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: 12125-02-9 | Ammonium Chloride | 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
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:**

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:**

| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|---|---|---|---|
| ACGIH | Ammonium Chloride | 12125-02-9 | ACGIH TLV TWA 10.0 mg/m³ |
| | Ammonium Chloride | 12125-02-9 | ACGIH TLV STEL 20.0 mg/m³ |
| NIOSH | Ammonium Chloride | 12125-02-9 | NIOSH REL TWA 10.0 mg/m³ |
| | Ammonium Chloride | 12125-02-9 | NIOSH REL ST 20.0 mg/m³ |

**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** | White solid |
| **Odor** | Odorless |
| **Odor threshold** | Not determined. |
| **pH** | 5.0 - 5.5 (1-10%) aqueous soln. |
| **Melting point/freezing point** | Approx. 338°C (sublimes) |
| **Initial boiling point/range** | Approx. 520°C |
| **Flash point (closed cup)** | Not applicable. |
| **Evaporation rate** | Not determined. |
| **Flammability (solid, gas)** | Not determined. |
| **Upper flammability/explosive limit** | Not determined. |
| **Lower flammability/explosive limit** | Not determined. |
| **Vapor pressure** | Not determined. |
| **Vapor density** | Not determined. |
| **Density** | Not determined. |
| **Relative density** | Not applicable. |
| **Solubilities** | Approx. 29.7g/100 g water at 0°C available. |
| **Partition coefficient (n-octanol/water)** | Not determined. |
| **Auto/Self-ignition temperature** | Not determined. |
| **Decomposition temperature** | Not determined. |
| **Dynamic viscosity** | Not determined. |
| **Kinematic viscosity** | Not determined. |
| **Explosive properties** | Not determined. |
| **Oxidizing properties** | Not determined. |

**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:**

Acids, bases, silver salts. Reacts explosively with potassium chlorate or bromine trifluoride. Reacts violently with bromide pentafluoride, ammonium compounds, nitrates and iodine heptafluoride.

**Hazardous decomposition products:**

Ammonia, hydrogen chloride.

## SECTION 11: Toxicological information

**Acute toxicity**

**Assessment:** Harmful if swallowed

**Product data:** No data available.

**Substance data:**

| Name | Route | Result |
|---|---|---|
| Ammonium Chloride | oral | LD50 - Mouse: 1300 mg/kg |

**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 |
|---|---|
| Ammonium Chloride | 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:** 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.
**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. |

**Ammonium Chloride, ACS Grade**

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

**International Maritime Dangerous Goods (IMDG)**

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

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

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

| **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** | |
|---|---|
| **Bulk Name** | None |
| **Ship type** | None |
| **Pollution category** | None |

## SECTION 15: Regulatory information

**United States regulations**

**Inventory listing (TSCA):**

| | | |
|---|---|---|
| 12125-02-9 | Ammonium Chloride | 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 listed.

**SARA Section 313 toxic chemicals:** Not listed.

**CERCLA:**

| | | | |
|---|---|---|---|
| 12125-02-9 | Ammonium Chloride | Listed | 5000 lbs. |

**RCRA:** Not listed.

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

**Massachusetts Right to Know:**

**Ammonium Chloride, ACS Grade**

| | | |
|---|---|---|
| 12125-02-9 | Ammonium Chloride | Listed |

**New Jersey Right to Know:** NJ RTK Substance Number: 0093 NJ Assigned DOT Number: 3077

**New York Right to Know:** The Reportable Quantity (RQ) for releases to air is: 5000 lbs. The Reportable Quantity (RQ) for releases to land or water is: 100 lbs.

**Pennsylvania Right to Know:** PA Environmental Hazard (subject to release reporting): E

**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:** 09.25.2017

**End of Safety Data Sheet**

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

**Initial preparation date:** 04.25.2017 

## Ammonium Hydroxide 20% v/v(3M)

## SECTION 1: Identification

**Product identifier**

**Product name:** Ammonium Hydroxide 20% v/v(3M)
**Product code:** KEMAH1040-AA

**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:** |
|---|---|
| **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:**

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

**Label elements**

**Hazard pictograms:**

**Signal word:** Danger

**Hazard statements:**

H314 Causes severe skin burns and eye damage
H318 Causes serious eye damage

**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
P321 Specific treatment (see supplemental first aid instructions on this label).
P363 W lothing 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
P301+P IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER .

P303+P361+P353+P310 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
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: 7732-18-5 | Water | 80 |
| CAS number: 1336-21-6 | Ammonium Hydroxide | 20 |

**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
Get medical advice/attention if you feel unwell
Move exposed individual to fresh air
Immediately call a POISON CONTROL CENTER or seek medical attention

**After skin contact:**
Wash affected area with soap and water
Seek medical attention if symptoms develop or persist
Immediately remove all contaminated clothing
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
Seek medical attention if irritation persists or if concerned
Immediately call a POISON CONTROL CENTER or seek medical attention

**After swallowing:**
Rinse mouth and then drink plenty of water
Do not induce vomiting
Get medical advice/attention if you feel unwell
Immediately call a POISON CONTROL CENTER or seek medical attention

### 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.

**Ammonium Hydroxide 20% v/v(3M)**

**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
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:**

| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|---|---|---|---|
| ACGIH | Ammonium Hydroxide | 1336-21-6 | ACGIH TLV TWA 25 ppm ($NH_3$) |
| | Ammonium Hydroxide | 1336-21-6 | ACGIH TLV STEL 35 ppm ($NH_3$) |
| United States (OSHA) | Ammonium Hydroxide | 1336-21-6 | OSHA PEL TWA 50 ppm ($NH_3$) |
| | Ammonium Hydroxide | 1336-21-6 | OSHA PEL TWA 35 mg/m³ ($NH_3$) |
| NIOSH | Ammonium Hydroxide | 1336-21-6 | NIOSH REL TWA 25 ppm ($NH_3$) |
| | Ammonium Hydroxide | 1336-21-6 | NIOSH REL TWA 18 mg/m³ ($NH_3$) |
| | Ammonium Hydroxide | 1336-21-6 | NIOSH REL ST 35 ppm ($NH_3$) |
| | Ammonium Hydroxide | 1336-21-6 | NIOSH REL ST 27 mg/m³ ($NH_3$) |

**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** | Ammonia odor |
| **Odor threshold** | Not available |
| **pH** | 10.6-11.6 |
| **Melting point/freezing point** | Approx. 0°C |
| **Initial boiling point/range** | Approx. 100°C |
| **Flash point (closed cup)** | Not available |

**Ammonium Hydroxide 20% v/v(3M)**

| | |
|---|---|
| **Evaporation rate** | Not available |
| **Flammability (solid, gas)** | Not available |
| **Upper flammability/explosive limit** | Not available |
| **Lower flammability/explosive limit** | Not available |
| **Vapor pressure** | 115 at 20°C |
| **Vapor density** | Not available |
| **Density** | Not available |
| **Relative density** | Approx. 0.9-1.0 |
| **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 |
|---|---|
| Ammonium Hydroxide | Causes severe skin burns and eye damage. |

**Serious eye damage/irritation**
**Assessment:** Causes serious eye damage

**Ammonium Hydroxide 20% v/v(3M)**

**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.
**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:**

| Name | Result |
|---|---|
| Ammonium Hydroxide | LC50 - Coho salmon - 0.45 mg/L - 96 h |

**Chronic (long-term) toxicity**
**Product data:** No data available.
**Substance data:** No data available.

**Persistence and degradability**

**Ammonium Hydroxide 20% v/v(3M)**

**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** | 2672 |
| **UN proper shipping name** | Ammonia Solution |
| **UN transport hazard class(es)** | 8   |
| **Packing group** | III |
| **Environmental hazards** | None |
| **Special precautions for user** | None |

**International Maritime Dangerous Goods (IMDG)**

| | |
|---|---|
| **UN number** | 2672 |
| **UN proper shipping name** | Ammonia Solution |
| **UN transport hazard class(es)** | 8   |
| **Packing group** | III |
| **Environmental hazards** | None |
| **Special precautions for user** | None |

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

| | |
|---|---|
| **UN number** | 2672 |
| **UN proper shipping name** | Ammonia Solution |
| **UN transport hazard class(es)** | 8   |
| **Packing group** | III |
| **Environmental hazards** | None |
| **Special precautions for user** | None |

**Ammonium Hydroxide 20% v/v(3M)**

| **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):**

| | | |
|---|---|---|
| 1336-21-6 | Ammonium Hydroxide | 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:**

| Acute | Chronic | Fire | Pressure | Reactive |
|---|---|---|---|---|
| Yes | No | No | No | No |

**SARA Section 302 extremely hazardous substances:** Not determined.

**SARA Section 313 toxic chemicals:**

| | | |
|---|---|---|
| 1336-21-6 | Ammonium Hydroxide | Listed |

**CERCLA:**

| | | | |
|---|---|---|---|
| 1336-21-6 | Ammonium Hydroxide | Listed | 1000 |

**RCRA:** Not determined.

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

**Massachusetts Right to Know:**

| | | |
|---|---|---|
| 1336-21-6 | Ammonium Hydroxide | Listed |
| 7732-18-5 | Water | Not Listed |

**New Jersey Right to Know:**

| | | |
|---|---|---|
| 1336-21-6 | Ammonium Hydroxide | Not Listed |
| 7732-18-5 | Water | Not Listed |

**New York Right to Know:**

| | | |
|---|---|---|
| 1336-21-6 | Ammonium Hydroxide | Listed |
| 7732-18-5 | Water | Not Listed |

**Pennsylvania Right to Know:**

| | | |
|---|---|---|
| 1336-21-6 | Ammonium Hydroxide | Listed |
| 7732-18-5 | Water | Not Listed |

**California Proposition 65:** Not determined.

## SECTION 16: Other information

**Abbreviations and Acronyms:** None

**Disclaimer:**

**Ammonium Hydroxide 20% v/v(3M)**

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:** 04.25.2017

**End of Safety Data Sheet**

## Hydrochloric Acid,12M

## SECTION 1: Identification

### Product identifier

**Product name:** Hydrochloric Acid,12M
**Product code:** KEMHA1000-AA

### 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<br>860 Gitts Run Road<br>Hanover<br>PA 17331<br>(717) 632-1291 | AquaPhoenix Scientific Inc.<br>860 Gitts Run Road<br>Hanover<br>PA 17331<br>(717) 632-1291 |

### Emergency telephone number:

**United States**

Emergency Telephone No.: 800-255-3924

## SECTION 2: Hazard(s) identification

### GHS classification:

Corrosive to metals, category 1
Skin corrosion, category 1B
Serious eye damage, category 1
Acute toxicity (oral), category 4
Specific target organ toxicity - single exposure, category 3, respiratory irritation

### Label elements

**Hazard pictograms:**

**Signal word:** Danger

### Hazard statements:

H290 May be corrosive to metals
H200 Unstable explosive
H314 Causes severe skin burns and eye damage
H318 Causes serious eye damage
H302 Harmful if swallowed
H335 May cause respiratory irritation

### Precautionary statements:

P234 Keep only in original container
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
P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood
P270 Do not eat, drink or smoke when using this product
P271 Use only outdoors or in a well-ventilated area
P390 Absorb spillage to prevent material damage
P321 Specific treatment (see supplemental first aid instructions on this label).
P363 Wash contaminated clothing before reuse
P304+P340+P310 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician
P301+P330+P331+P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.
P303+P361+P353+P310 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
P372 Explosion risk in case of fire
P373 Do not fight fire when fire reaches explosives
P380 Evacuate area
P406 Store in corrosive resistant stainless steel container with a resistant inner liner
P405 Store locked up
P401 Store ...
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: 7732-18-5 | Water | 50-70 |
| CAS number: 7647-01-0 | Hydrochloric acid | 30-50 |

**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
Get medical advice/attention if you feel unwell
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
Remove contact lenses, if present and easy to do
Continue rinsing
Get medical advice/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 and then drink plenty of water
Do not induce vomiting
Get medical advice/attention if you feel unwell
Immediately call a POISON CONTROL CENTER or seek medical attention

**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 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:**

| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|---|---|---|---|
| ACGIH | Hydrochloric acid | 7647-01-0 | ACGIH TLV C 2.0 ppm |
| United States (OSHA) | Hydrochloric acid | 7647-01-0 | OSHA PEL C 5.0 ppm |
| | Hydrochloric acid | 7647-01-0 | OSHA PEL C 7.0 mg/m³ |
| NIOSH | Hydrochloric acid | 7647-01-0 | NIOSH REL C 5.0 ppm |
| | Hydrochloric acid | 7647-01-0 | NIOSH REL C 7.0 mg/m³ |

**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** | Alcohol |
| **Odor threshold** | 0.3 – 14.9 mg/m3 |
| **pH** | < 1 |
| **Melting point/freezing point** | - 74 C |
| **Initial boiling point/range** | 81.5 - 110 C |
| **Flash point (closed cup)** | Not determined or not available. |
| **Evaporation rate** | >1.00 |
| **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** | 5.7 mmHg at 0°C |
| **Vapor density** | 1.27 (Air = 1) |
| **Density** | Not determined or not available. |
| **Relative density** | 1.0 - 1.2 |
| **Solubilities** | Not determined or not available. |
| **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

**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:** Harmful if swallowed
**Product data:** No data available.
**Substance data:**

| Name | Route | Result |
|---|---|---|
| Hydrochloric acid | inhalation | LC50 - Mouse - 1,108 ppm / 1h |

**Skin corrosion/irritation**
**Assessment:** Causes severe skin burns and eye damage
**Product data:** No data available.
**Substance data:**

| Name | Result |
|---|---|
| Hydrochloric acid | 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.
**Product data:** No data available.
**Substance data:** No data available.
**International Agency for Research on Cancer (IARC):**

| Name | Classification |
|---|---|
| Hydrochloric acid | Group 3 - Not classifiable as to its carcinogenicity to humans |

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

**Hydrochloric Acid,12M**

**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** | UN1789 |
| **UN proper shipping name** | Hydrochloric Acid. |
| **UN transport hazard class(es)** | 8 |
| **Packing g** | II |
| **Environm l hazards** | None |
| **Special p** | |

## Hydrochloric Acid,12M

### International Maritime Dangerous Goods (IMDG)

| | |
|---|---|
| **UN number** | UN1789 |
| **UN proper shipping name** | Hydrochloric Acid. |
| **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** | UN1789 |
| **UN proper shipping name** | Hydrochloric Acid. |
| **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):**

| | | |
|---|---|---|
| 7647-01-0 | Hydrochloric acid | 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:**

| Acute | Chronic | Fire | Pressure | Reactive |
|---|---|---|---|---|
| No | No | No | No | No |

**SARA Section 302 extremely hazardous substances:** Not determined.

**SARA Section 313 toxic chemicals:**

| | | |
|---|---|---|
| 7647-01-0 | Hydrochloric acid | Not Listed |
| 7732-18-5 | Water | Not Listed |

**CERCLA:**

| | | | |
|---|---|---|---|
| 7647-01-0 | Hydrochloric acid | Listed | 5000 lbs. |

**RCRA:** Not determined.

**Section 112(r) of the Clean Air Act (CAA):**

| | | |
|---|---|---|
| 7647-01-0 | Hydrochloric acid | Listed |

**Massachusetts Right to Know:**

| | | |
|---|---|---|
| 7647-01-0 | Hydrochloric acid | Listed |
| 7732-18-5 | Water | Not Listed |

## Hydrochloric Acid,12M

**New Jersey Right to Know:**

| | | |
|---|---|---|
| 7647-01-0 | Hydrochloric acid | Listed |
| 7732-18-5 | Water | Not Listed |

**New York Right to Know:**

| | | |
|---|---|---|
| 7647-01-0 | Hydrochloric acid | Listed |
| 7732-18-5 | Water | Not Listed |

**Pennsylvania Right to Know:**

| | | |
|---|---|---|
| 7647-01-0 | Hydrochloric acid | Listed |
| 7732-18-5 | Water | 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:** 1-3-0

**HMIS:** 0-3-0

**Initial preparation date:** 01.24.2018

**End of Safety Data Sheet**

## Sodium Acetate, Trihydrate

## SECTION 1: Identification

**Product identifier**

**Product name:** Sodium Acetate, Trihydrate
**Product code:** KEMSA1100-E

**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<br>860 Gitts Run Road<br>Hanover<br>PA 17331<br>(717) 632-1291 | AquaPhoenix Scientific Inc.<br>860 Gitts Run Road<br>Hanover<br>PA 17331<br>(717) 632-1291 |

**Emergency telephone number:**

**United States**

Emergency Telephone No.: 800-255-3924

## SECTION 2: Hazard(s) identification

**GHS classification:** Not a hazardous substance or mixture
**Label elements**

**Hazard pictograms:** None

**Signal word:** None

**Hazard statements:** None
**Precautionary statements:** None
**Hazards not otherwise classified:** None

## SECTION 3: Composition/information on ingredients

| Identification | Name | Weight % |
|---|---|---|
| CAS number:<br>6131-90-4 | Sodium acetate trihydrate | >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

**After eye contact:**
Rinse/flush exposed eye(s) gently using water for 15-20 minutes
If symptoms develop or persist, 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

**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**

**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, white |
| **Odor** | Odorless |
| **Odor threshold** | 8.5 - 10 at 408 g/l at 25 °C (77 °F) |
| **pH** | Not determined |
| **Melting point/freezing point** | 58°C |
| **Initial boiling point/range** | Not determined |
| **Flash point (closed cup)** | Not determined |
| **Evaporation rate** | Not determined |
| **Flammability (solid, gas)** | Not determined |
| **Upper flammability/explosive limit** | Not determined |

**Sodium Acetate, Trihydrate**

| | |
|---|---|
| **Lower flammability/explosive limit** | Not determined |
| **Vapor pressure** | Not determined |
| **Vapor density** | Not determined |
| **Density** | Not determined |
| **Relative density** | Not determined |
| **Solubilities** | Soluble in water; 408 g/l at 20 °C (68 °F) - completely soluble |
| **Partition coefficient (n-octanol/water)** | Not determined |
| **Auto/Self-ignition temperature** | Not determined |
| **Decomposition temperature** | Not determined |
| **Dynamic viscosity** | Not determined |
| **Kinematic viscosity** | Not determined |
| **Explosive properties** | Not determined |
| **Oxidizing properties** | Not determined |

**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:** 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:** Based on available data, the classification criteria are not met.
**Product data:** No data available.
**Substance data:** No data available.

**Respiratory or skin sensitization**
**Assessment:** Based on available data, the classification criteria are not met.
**Product data:** No data available.

**Sodium Acetate, Trihydrate**

**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.

**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.

## Sodium Acetate, Trihydrate

**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 |

**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):**

| | | |
|---|---|---|
| 6131-90-4 | Sodium acetate trihydrate | 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 |

## Sodium Acetate, Trihydrate

**SARA Section 302 extremely hazardous substances:** Not determined.

**SARA Section 313 toxic chemicals:**

| | | |
|---|---|---|
| 6131-90-4 | Sodium acetate trihydrate | Not Listed |

**CERCLA:** Not determined.

**RCRA:** Not determined.

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

**Massachusetts Right to Know:**

| | | |
|---|---|---|
| 6131-90-4 | Sodium acetate trihydrate | Not Listed |

**New Jersey Right to Know:**

| | | |
|---|---|---|
| 6131-90-4 | Sodium acetate trihydrate | Not Listed |

**New York Right to Know:**

| | | |
|---|---|---|
| 6131-90-4 | Sodium acetate trihydrate | Not Listed |

**Pennsylvania Right to Know:**

| | | |
|---|---|---|
| 6131-90-4 | Sodium acetate trihydrate | 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.

**Initial preparation date:** 02.24.2018

**End of Safety Data Sheet**

P310

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200



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

P321 Sp lemental first aid instructions on this label).

P363 W lothing 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.

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.

**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:**

## Sodium Hydroxide, 12.0N

| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|---|---|---|---|
| ACGIH | Sodium hydroxide | 1310-73-2 | ACGIH TLV C 2.0 mg/m³ |
| 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/m³ |
| | Sodium hydroxide | 1310-73-2 | NIOSH IDLH 10.0 mg/m³ |

**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 |

**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.

**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

**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 |

## 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**

easy to do

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200



## Sodium Phosphate Dibasic

## SECTION 1: Identification

**Product identifier**

**Product name:** Sodium Phosphate Dibasic
**Product code:** KEMSP1005-J

**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<br>860 Gitts Run Road<br>Hanover<br>PA 17331<br>(717) 632-1291 | AquaPhoenix Scientific Inc.<br>860 Gitts Run Road<br>Hanover<br>PA 17331<br>(717) 632-1291 |

**Emergency telephone number:**

**United States**

Emergency Telephone No.: 800-255-3924

## SECTION 2: Hazard(s) identification

**GHS classification:**

Combustible dust
Eye irritation, category 2A
Skin irritation, category 2

**Label elements**

**Hazard pictograms:**

**Signal word:** Warning

**Hazard statements:**

H900 May form combustible dust concentrations in air
H319 Causes serious eye irritation
H315 Causes skin irritation

**Precautionary statements:**

P264 Wash skin thoroughly after handling
P280 Wear protective gloves/protective clothing/eye protection/face protection
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present . Continue rinsing
P321 Sp lemental first aid instructions on this label).
P362 Ta lothing and wash before reuse
P302+P If on skin: Wash with soap and water

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

**Hazards not otherwise classified:** None

## SECTION 3: Composition/information on ingredients

| Identification | Name | Weight % |
|---|---|---|
| CAS number: 7558-79-4 | Sodium Phosphate, Dibasic | 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
Get medical advice/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

**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
High concentrations of dust may lead to combustible mixtures with air

**Special protective equipment for firefighters:**
Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

**Special precautions:**
Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard
Carbon monoxide and carbon dioxide may form upon combustion
Heating causes a rise in pressure, risk of bursting and 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
Wear dust mask or respirator
Dust Deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration

**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
Wear dust mask or respirator
Prevent generation of combustible dust in air mixtures
Sweep or scoop up solid material while minimizing dust generation
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:**
Use only with adequate ventilation.
Avoid breathing dust.
Do not eat, drink, smoke or use personal products when handling chemical substances.
Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.
Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations.
Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
Prevent generation of combustible dust in air mixtures.

**Conditions for safe storage, including any incompatibilities:**
Keep container tightly sealed.
Keep container dry.
Store in a cool, well-ventilated area.

## SECTION 8: Exposure controls/personal protection

## Sodium Phosphate Dibasic

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:**

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls.
Biological monitoring may also be appropriate for some substances.

**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.
It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen- deficient environment.
Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the 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.
Wear appropriate clothing to prevent any possibility of skin contact.

**Respiratory protection:**

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

**General hygienic measures:**

Avoid contact with skin, eyes and clothing.
Wash hands before breaks and at the end of work.
Wash contaminated clothing before reuse.

## SECTION 9: Physical and chemical properties

**Information on basic physical and chemical properties**

| | |
|---|---|
| **Appearance** | Solid |
| **Odor** | Odorless |
| **Odor threshold** | Not determined |
| **pH** | Not determined |
| **Melting point/freezing point** | >240 °C |
| **Initial boiling point/range** | Not determined |
| **Flash point (closed cup)** | Not determined |
| **Evaporation rate** | Not determined |
| **Flammability (solid, gas)** | Not determined |
| **Upper flammability/explosive limit** | Not determined |

**Sodium Phosphate Dibasic**

| | |
|---|---|
| **Lower flammability/explosive limit** | Not determined |
| **Vapor pressure** | Not determined |
| **Vapor density** | Not determined |
| **Density** | Not determined |
| **Relative density** | Not determined |
| **Solubilities** | Soluble |
| **Partition coefficient (n-octanol/water)** | Not determined |
| **Auto/Self-ignition temperature** | Not determined |
| **Decomposition temperature** | Not determined |
| **Dynamic viscosity** | Not determined |
| **Kinematic viscosity** | Not determined |
| **Explosive properties** | Not determined |
| **Oxidizing properties** | Not determined |

**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:**
Prevent generation of combustible dust in air mixtures.

**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 |
|---|---|
| Sodium Phosphate, Dibasic | Causes skin irritation |

**Serious eye damage/irritation**

**Assessment:** Causes serious eye irritation

**Product data:** No data available.

**Substance data:**

## Sodium Phosphate Dibasic

| Name | Result |
|---|---|
| Sodium Phosphate, Dibasic | 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:** 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.
**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.

## Sodium Phosphate Dibasic

**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

## 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 |

**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):**

| | | |
|---|---|---|
| 7558-79-4 | Sodium Phosphate, Dibasic | Listed |

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

## Sodium Phosphate Dibasic

**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:**

| | | |
|---|---|---|
| 7558-79-4 | Sodium Phosphate, Dibasic | Not Listed |

**CERCLA:**

| | | | |
|---|---|---|---|
| 7558-79-4 | Sodium Phosphate, Dibasic | Listed | 5000 |

**RCRA:** Not determined.

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

**Massachusetts Right to Know:**

| | | |
|---|---|---|
| 7558-79-4 | Sodium Phosphate, Dibasic | Listed |

**New Jersey Right to Know:**

| | | |
|---|---|---|
| 7558-79-4 | Sodium Phosphate, Dibasic | Listed |

**New York Right to Know:**

| | | |
|---|---|---|
| 7558-79-4 | Sodium Phosphate, Dibasic | Listed |

**Pennsylvania Right to Know:**

| | | |
|---|---|---|
| 7558-79-4 | Sodium Phosphate, Dibasic | Listed |

**California Proposition 65:** Not determined.

## SECTION 16: Other information

**Abbreviations and Acronyms:** None

**Disclaimer:**

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

**NFPA:** 2-0-0

**HMIS:** 2-0-0

**Initial preparation date:** 02.22.2018

**End of Safety Data Sheet**

## Sodium Phosphate,Monobasic

## SECTION 1: Identification

**Product identifier**

**Product name:** Sodium Phosphate,Monobasic
**Product code:** KEMSP1020-E

**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<br>860 Gitts Run Road<br>Hanover<br>PA 17331<br>(717) 632-1291 | AquaPhoenix Scientific Inc.<br>860 Gitts Run Road<br>Hanover<br>PA 17331<br>(717) 632-1291 |

**Emergency telephone number:**

**United States**

Emergency Telephone No.: 800-255-3924

## SECTION 2: Hazard(s) identification

**GHS classification:**

Combustible dust

**Label elements**

**Hazard pictograms:** None

**Signal word:** Warning

**Hazard statements:**

H900 May form combustible dust concentrations in air

**Precautionary statements:** None

**Hazards not otherwise classified:** None

## SECTION 3: Composition/information on ingredients

| Identification | Name | Weight % |
|---|---|---|
| CAS number:<br>7558-80-7 | Sodium phosphate monobasic, anhydrous | 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
Get medical advice/attention if you feel unwell

**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
If symptoms develop or persist, 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

**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
High concentrations of dust may lead to combustible mixtures with air

**Special protective equipment for firefighters:**
Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

**Special precautions:**
Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard
Carbon monoxide and carbon dioxide may form upon combustion
Heating causes a rise in pressure, risk of bursting and 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
Wear dust mask or respirator

Dust Deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration

**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
Wear dust mask or respirator
Prevent generation of combustible dust in air mixtures
Sweep or scoop up solid material while minimizing dust generation
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:**

Use only with adequate ventilation.
Avoid breathing dust.
Do not eat, drink, smoke or use personal products when handling chemical substances.
Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.
Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations.
Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
Prevent generation of combustible dust in air mixtures.

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

Keep container tightly sealed.
Keep container dry.
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:**

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls.
Biological monitoring may also be appropriate for some substances.

**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.
It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen- deficient environment.
Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no

leakage from the 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.
Wear appropriate clothing to prevent any possibility of skin contact.

**Respiratory protection:**

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

**General hygienic measures:**

Avoid contact with skin, eyes and clothing.
Wash hands before breaks and at the end of work.
Wash contaminated clothing before reuse.

## SECTION 9: Physical and chemical properties

**Information on basic physical and chemical properties**

| | |
|---|---|
| **Appearance** | White Solid |
| **Odor** | Odorless |
| **Odor threshold** | Not determined |
| **pH** | 4.1 - 4.5: 5% solution |
| **Melting point/freezing point** | 100°C |
| **Initial boiling point/range** | 203.9°C |
| **Flash point (closed cup)** | Not determined |
| **Evaporation rate** | Negligible |
| **Flammability (solid, gas)** | Not determined |
| **Upper flammability/explosive limit** | Not determined |
| **Lower flammability/explosive limit** | Not determined |
| **Vapor pressure** | Not determined |
| **Vapor density** | Not determined |
| **Density** | Not determined |
| **Relative density** | approximately 2.0 |
| **Solubilities** | Water Soluble |
| **Partition coefficient (n-octanol/water)** | Not determined |
| **Auto/Self-ignition temperature** | Not determined |
| **Decomposition temperature** | 437 °F |
| **Dynamic viscosity** | Not determined |
| **Kinematic viscosity** | Not determined |
| **Explosive properties** | Not determined |
| **Oxidizing properties** | Not determined |

**Other information**

| | |
|---|---|
| **Other physical properties:** | Hygroscopic (absorbs moisture from the air) |

## 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:**
Prevent generation of combustible dust in air mixtures.

**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:** 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:** Based on available data, the classification criteria are not met.
**Product data:** No data available.
**Substance data:** No data available.

**Respiratory or skin sensitization**
**Assessment:** Based on available data, the classification criteria are not met.
**Product data:** No data available.
**Substance data:** No data available.

**Carcinogenicity**
**Assessment:** Based on available data, the classification criteria are not met.
**Product data:** No data available.
**Substance data:** No data available.
**International Agency for Research on Cancer (IARC):** None of the ingredients are listed.
**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)**

**Sodium Phosphate,Monobasic**

**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

**Disposal methods:**
It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

## 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 |

**Sodium Phosphate,Monobasic**

| | |
|---|---|
| **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):**

| | | |
|---|---|---|
| 7558-80-7 | Sodium phosphate monobasic, anhydrous | 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:**

| | | |
|---|---|---|
| 7558-80-7 | Sodium phosphate monobasic, anhydrous | Not Listed |

**CERCLA:** Not determined.

**RCRA:** Not determined.

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

**Massachusetts Right to Know:**

| | | |
|---|---|---|
| 7558-80-7 | Sodium phosphate monobasic, anhydrous | Not Listed |

**New Jersey Right to Know:**

| | | |
|---|---|---|
| 7558-80-7 | Sodium phosphate monobasic, anhydrous | Not Listed |

**New York Right to Know:**

| | | |
|---|---|---|
| 7558-80-7 | Sodium phosphate monobasic, anhydrous | Not Listed |

**Pennsylvania Right to Know:**

**Sodium Phosphate,Monobasic**

| | | |
|---|---|---|
| 7558-80-7 | Sodium phosphate monobasic, anhydrous | 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 OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

**NFPA:** 2-0-0

**HMIS:** 2-0-0

**Initial preparation date:** 02.22.2018

**End of Safety Data Sheet**