

# Safety Data Sheet


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

Revision: August 22, 2020

## 1 Identification

- **Product identifier**
- **Trade name:** Hydroxylamine Hydrochloride Solution
- **Product code:** HH8595SS
- **Recommended use and restriction on use**
- **Recommended use:** Laboratory chemicals
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
AquaPhoenix Scientific, Inc.  
860 Gitts Run Road  
Hanover, PA 17331 USA  
Tel +1 (717)632-1291  
Toll-Free: (866)632-1291  
info@aquaphoenixsci.com
- **Distributor:**  
AquaPhoenix Scientific  
860 Gitts Run Road,  
Hanover, PA 17331  
(717) 632-1291
- **Emergency telephone number:**  
ChemTel Inc.  
(800)255-3924 (North America)  
+1 (813)248-0585 (International)

## 2 Hazard(s) identification

- **Classification of the substance or mixture**  
Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.  
Carc. 2 H351 Suspected of causing cancer.  
STOT RE 2 H373 May cause damage to the spleen and the blood through prolonged or repeated exposure.
- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**  
  
GHS07 GHS08
- **Signal word:** Warning
- **Hazard statements:**  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.

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H351 Suspected of causing cancer.

H373 May cause damage to the spleen and the blood through prolonged or repeated exposure.

**Precautionary statements:**




- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe mist/vapors/spray.
- P264 Wash thoroughly after handling.
- P272 Contaminated work clothing must not be allowed out of the workplace.
- P280 Wear protective gloves/protective clothing/eye protection.
- P302+P352 If on skin: Wash with plenty of soap and water.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P314 Get medical advice/attention if you feel unwell.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P363 Wash contaminated clothing before reuse.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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

## 3 Composition/information on ingredients

**Chemical characterization: Mixtures**

**Components:**

5470-11-1	hydroxylammonium chloride	10%
	 Carc. 2, H351; STOT RE 2, H373  Met. Corr. 1, H290  Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317	
7732-18-5	Water	90%

**Additional information:**

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

## 4 First-aid measures

**Description of first aid measures**

**General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

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

**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation or rash occurs: Get medical advice/attention.

**After eye contact:**

Remove contact lenses if worn.

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Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

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

Gastric or intestinal disorders when ingested.

Nausea in case of ingestion.

Allergic reactions

Causes eye irritation.

Causes skin irritation.

· **Danger:**

May be harmful if swallowed.

Suspected of causing cancer.

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

Medical supervision for at least 48 hours.

Treat skin and mucous membrane with antihistamine and corticoid preparations.

Contains hydroxylammonium chloride. May produce an allergic reaction.

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

## 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

· **For safety reasons unsuitable extinguishing agents:** No relevant information available.

· **Special hazards arising from the substance or mixture**

During heating or in case of fire poisonous gases are produced.

· **Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

## 6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

· **Environmental precautions**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· **Methods and material for containment and cleaning up**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Send for recovery or disposal in suitable receptacles.

Dispose of the collected material according to regulations.

· **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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## 7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
  - Prevent formation of aerosols.
  - Use only in well ventilated areas.
  - Avoid splashes or spray in enclosed areas.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:**
  - Store away from foodstuffs.
  - Store away from oxidizing agents.
- **Further information about storage conditions:**
  - Keep containers tightly sealed.
  - Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No relevant information available.

## 8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
  - The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Exposure controls**
- **General protective and hygienic measures:**
  - The usual precautionary measures for handling chemicals should be followed.
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing.
  - Wash hands before breaks and at the end of work.
  - Do not inhale gases / fumes / aerosols.
  - Avoid contact with the eyes and skin.
- **Engineering controls:** Provide adequate ventilation.
- **Breathing equipment:**
  - Not required under normal conditions of use.
  - Use suitable respiratory protective device when high concentrations are present.
- **Protection of hands:**



Protective gloves

- **Material of gloves**
  - Neoprene gloves
  - Nitrile rubber, NBR
  - Butyl rubber, BR
  - Fluorocarbon rubber (Viton)
- **Penetration time of glove material**
  - The exact break through time has to be found out by the manufacturer of the protective gloves and has to

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be observed.

· **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

· **Body protection:** Protective work clothing

· **Limitation and supervision of exposure into the environment**

No relevant information available.

## 9 Physical and chemical properties

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

· **Appearance:**

Form:	Liquid
Color:	Colorless
Odor:	Characteristic
Odor threshold:	Not determined.

pH-value at 20 °C (68 °F):	2.5-3.0
Melting point/Melting range:	Not determined.
Boiling point/Boiling range:	100 °C (212 °F)

Flash point:	The product is not flammable.
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Flammability (solid, gaseous):	Not applicable.
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Auto-ignition temperature:	Not determined.
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Decomposition temperature:	Not determined.
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Danger of explosion:	Product does not present an explosion hazard.
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· **Explosion limits**

Lower:	Not determined.
Upper:	Not determined.

Oxidizing properties:	Non-oxidizing.
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Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)
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Density at 20 °C (68 °F):	1.01 g/cm <sup>3</sup> (8.43 lbs/gal)
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Relative density:	Not determined.
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Vapor density:	Not determined.
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Evaporation rate:	Not determined.
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· **Solubility in / Miscibility with**

Water:	Fully miscible.
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Partition coefficient (n-octanol/water):	Not determined.
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· **Viscosity**

Dynamic:	Not determined.
Kinematic:	Not determined.

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**Other information**

No relevant information available.

## 10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**  
Toxic fumes may be released if heated above the decomposition point.  
Reacts with oxidizing agents.  
Reacts with certain metals.
- **Conditions to avoid**  
Excessive heat.  
Direct sunlight.
- **Incompatible materials**  
Metals.  
Oxidizers
- **Hazardous decomposition products**  
Under fire conditions only:  
Sulfur oxides (SO<sub>x</sub>)  
Nitrogen oxides (NO<sub>x</sub>)  
Carbon monoxide and carbon dioxide

## 11 Toxicological information

- **Information on toxicological effects**
  - **Acute toxicity:** May be harmful if swallowed.
  - **LD/LC50 values that are relevant for classification:**
- | ATE (Acute Toxicity Estimate) |      |                    |
|-------------------------------|------|--------------------|
| Oral                          | LD50 | 4080 mg/kg (mouse) |
| Dermal                        | LD50 | 11000 mg/kg        |
- 
- | 5470-11-1 hydroxylammonium chloride |      |                   |
|-------------------------------------|------|-------------------|
| Oral                                | LD50 | 408 mg/kg (mouse) |
- **Primary irritant effect:**
  - **On the skin:** Irritant to skin and mucous membranes.
  - **On the eye:** Causes eye irritation.
  - **Sensitization:** Sensitization possible through skin contact.

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

None of the ingredients are listed.

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

None of the ingredients are listed.

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

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None of the ingredients are listed.

· **Probable route(s) of exposure:**

Ingestion.  
Inhalation.  
Eye contact.  
Skin contact.

· **Acute effects (acute toxicity, irritation and corrosivity):**

Causes skin and eye irritation.  
May be harmful if swallowed.

· **Repeated dose toxicity:**

Possible risk of irreversible effects.  
Sensitizing effect by skin contact is possible with prolonged exposure.

· **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

· **Carcinogenicity:** Suspected of causing cancer.

· **Reproductive toxicity:** Based on available data, the classification criteria are not met.

· **STOT-single exposure:** Based on available data, the classification criteria are not met.

· **STOT-repeated exposure:**

May cause damage to the spleen and the blood through prolonged or repeated exposure.

· **Aspiration hazard:** Based on available data, the classification criteria are not met.

## 12 Ecological information

· **Toxicity**

· **Aquatic toxicity** No relevant information available.

· **Persistence and degradability** No relevant information available.

· **Bioaccumulative potential:** No relevant information available.

· **Mobility in soil:** No relevant information available.

· **Additional ecological information**

· **General notes:**

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.

· **Other adverse effects** No relevant information available.

## 13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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## 14 Transport information

- |  |                 |
|--|-----------------|
| · <b>UN-Number</b><br>· DOT, ADR/RID/ADN, IMDG, IATA                             | Not regulated.  |
| · <b>UN proper shipping name</b><br>· DOT, ADR/RID/ADN, IMDG, IATA               | Not regulated.  |
| · <b>Transport hazard class(es)</b><br>· DOT, ADR/RID/ADN, IMDG, IATA<br>· Class | Not regulated.  |
| · <b>Packing group</b><br>· DOT, ADR/RID/ADN, IMDG, IATA                         | Not regulated.  |
| · <b>Environmental hazards</b>   | Not applicable. |
| · <b>Special precautions for user</b>  | Not applicable. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - United States (USA)
  - SARA
- |   |
|---|
| · <b>Section 302 (extremely hazardous substances):</b>                |
| None of the ingredients are listed.                                   |
| · <b>Section 313 (Specific toxic chemical listings):</b>              |
| None of the ingredients are listed.                                   |
| · <b>TSCA (Toxic Substances Control Act)</b>                          |
| All ingredients are listed or exempt.                                 |
| · <b>Proposition 65 (California)</b>                                  |
| · <b>Chemicals known to cause cancer:</b>                             |
| None of the ingredients are listed.                                   |
| · <b>Chemicals known to cause developmental toxicity for females:</b> |
| None of the ingredients are listed.                                   |
| · <b>Chemicals known to cause developmental toxicity for males:</b>   |
| None of the ingredients are listed.                                   |
| · <b>Chemicals known to cause developmental toxicity:</b>             |
| None of the ingredients are listed.                                   |
| · <b>EPA (Environmental Protection Agency):</b>                       |
| None of the ingredients are listed.                                   |

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

None of the ingredients are listed.

· **Canadian Domestic Substances List (DSL):**

None of the ingredients are listed.

## 16 Other information

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

· **Abbreviations and acronyms:**

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

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration

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

Acute Tox. 4: Acute toxicity – Category 4

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

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 2: Carcinogenicity – Category 2

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

· **Sources**

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

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

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

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

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

Safety Data Sheets, Individual Manufacturers

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