Printing date 05/16/2024 Reviewed on 05/16/2024

1 Identification

· Product identifier

· Trade name: Sodium Std. 150 ppm in 2% HCl (1ml=0.15mg Na)

· Article number: LY344

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier: Aqua Solutions, Inc. 6913 Highway 225 DEER PARK, TX 77536 USA 800-256-2586

· Information department:

Technical Coordinator

Sherman Nelson shermann@aquasolutions.org

· Emergency telephone number: Chemtrec: 800-424-9300 Canutec: 613-996-6666



2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Specific Target Organ Toxicity - Repeated Exposure 2 H373 May cause damage to organs through prolonged or repeated exposure.



Skin Corrosion 1A

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

Eye Damage 1
---• Label elements

- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms





GHS05

- · Signal word Danger
- · Hazard-determining components of labeling:

Hydrochloric Acid

· Hazard statements

Causes severe skin burns and eye damage.

May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

Do not breathe dusts or mists.

Wash thoroughly after handling.

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in 2% HCl (1ml=0.15mg Na)

(Contd. of page 1)

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

If swallowed: Call a poison center/doctor if you feel unwell.

If on skin: Wash with plenty of water.

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

Store locked up.

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

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 2 Fire = 0Reactivity = 0

· HMIS-ratings (scale 0 - 4)



- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.

| · Dangerous components: | | | | |
|-------------------------------------|-------------------|---------|--|--|
| CAS: 7647-01-0 | Hydrochloric Acid | 2.293% | | |
| · Table of Nonhazardous Ingredients | | | | |
| CAS: 7732-18-5 | Water | 97.669% | | |
| CAS: 7647-14-5 | Sodium Chloride | 0.038% | | |

4 First-aid measures

- · Description of first aid measures
- · General information:

Immediately remove any clothing soiled by the product.

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

- · After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.

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(Contd. of page 2)

· Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture

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

- · Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

- · Environmental precautions: Dilute with plenty of water.
- · Methods and material for containment and cleaning up:

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

Use neutralizing agent.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

· 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.

· Protective Action Criteria for Chemicals

| • PAC-1: | | | | |
|----------------------------------|---------|--|--|--|
| CAS: 7647-01-0 Hydrochloric Acid | 1.8 ppm | | | |
| · PAC-2: | | | | |
| CAS: 7647-01-0 Hydrochloric Acid | 22 ppm | | | |
| · PAC-3: | | | | |
| CAS: 7647-01-0 Hydrochloric Acid | 100 ppm | | | |

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

- · Information about protection against explosions and fires: Keep respiratory protective device available.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep receptacle tightly sealed.

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(Contd. of page 3)

· Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see section 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

CAS: 7647-01-0 Hydrochloric Acid

NIOSH RECOMENDED EXP LIMI | Ceiling limit value: 7.0 mg/m3 mg/m³
PEL | Ceiling limit value: 7 mg/m³, 5 ppm
REL | Ceiling limit value: 7 mg/m³, 5 ppm
TLV | Ceiling limit value: 2 ppm
A4

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· 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 be observed.

· Eye protection:



Tightly sealed goggles

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· Body protection: Protective work clothing

(Contd. of page 4)

| Information on basic physical and che | omical properties |
|---|---|
| General Information | micui properues |
| Appearance: | |
| Form: | Liquid |
| Color: | Clear |
| Odor: | Odorless |
| Odor threshold: | Not determined. |
| pH-value at 20 °C (68 °F): | <2 |
| Change in condition | |
| Melting point/Melting range: | 0 °C (32 °F) |
| Boiling point/Boiling range: | Undetermined. |
| Flash point: | Not applicable. |
| Flammability (solid, gaseous): | Not applicable. |
| Decomposition temperature: | Not determined. |
| Ignition temperature: | Product is not selfigniting. |
| Danger of explosion: | Product does not present an explosion hazard. |
| Explosion limits: | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| Vapor pressure at 20 °C (68 °F): | 23 hPa (17.3 mm Hg) |
| Density at 20 °C (68 °F): | 1.0032 g/cm³ (8.3717 lbs/gal) |
| Relative density | Not determined. |
| Vapor density | Not determined. |
| Evaporation rate | Not determined. |
| Solubility in / Miscibility with | |
| Water: | Fully miscible. |
| Partition coefficient (n-octanol/water) | : Not determined. |
| Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| Solvent content: | |
| Water: | 97.7 % |
| VOC content: | 0.00 % |
| | 0.0 g/l / 0.00 lb/gal |
| Solids content: | 0.0 % |
| Other information | No further relevant information available. |

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in 2% HCl (1ml=0.15mg Na)

(Contd. of page 5)

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: Strong caustic effect on skin and mucous membranes.
- · on the eye:

Strong caustic effect.

Strong irritant with the danger of severe eye injury.

- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Not hazardous for water.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

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in 2% HCl (1ml=0.15mg Na)

(Contd. of page 6)

- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

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.

| UN-Number | | |
|---|-----------------|--|
| DOT, ADN, IMDG, IATA | Not regulated | |
| UN proper shipping name DOT, ADN, IMDG, IATA | Not regulated | |
| Transport hazard class(es) | | |
| DOT, ADN, IMDG, IATA | | |
| Class | Not regulated | |
| Packing group | | |
| DOT, IMDG, IATA | Not regulated | |
| Environmental hazards: | | |
| Marine pollutant: | No | |
| Special precautions for user | Not applicable. | |
| Transport in bulk according to Annex | II of | |
| MARPOL73/78 and the IBC Code | Not applicable. | |
| · UN "Model Regulation": | Not regulated | |

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

Water ACTIVE

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Trade name: Sodium Std. 150 ppm

in 2% HCl (1ml=0.15mg Na)

| | (Contd. of page 7) |
|-------------------|--------------------|
| Hydrochloric Acid | ACTIVE |
| Sodium Chloride | ACTIVE |

· Hazardous Air Pollutants

CAS: 7647-01-0 Hydrochloric Acid

- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms





GHS05

GHS08

- · Signal word Danger
- · Hazard-determining components of labeling:

Hydrochloric Acid

· Hazard statements

Causes severe skin burns and eye damage.

May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

Do not breathe dusts or mists.

Wash thoroughly after handling.

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

If swallowed: Call a poison center/doctor if you feel unwell.

If on skin: Wash with plenty of water.

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

Store locked up.

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

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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Trade name: Sodium Std. 150 ppm in 2% HCl (1ml=0.15mg Na)

(Contd. of page 8)

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.

- · Department issuing SDS: Environment protection department.
- · Contact:

Date of Preparation / Last Revision:

· Date of preparation / last revision

Revision 1.2, 05/16/2024: Reviewed SDS for accuracy. MH/STN 05/16/2024

· Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Skin Corrosion 1A: Skin corrosion/irritation – Category 1A

Eye Damage 1: Serious eye damage/eye irritation – Category 1

Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) – Category 2

* Data compared to the previous version altered.

US