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1 Identification

- · Product identifier
- · Trade name: Ammonia Standard 10000 ppm as NH3
- · Article number: DC901
- · 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
- The product is not classified, according to the Globally Harmonized System (GHS).
- · Label elements
- · GHS label elements Not Applicable
- · Hazard pictograms Not Applicable
- · Signal word Not Applicable
- · Hazard statements Not Applicable
- · Precautionary statements
- If swallowed: Call a poison center/doctor if you feel unwell.

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- 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)



· HMIS-ratings (scale 0 - 4)

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity =

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

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3 Composition/information on ingredients • Chemical characterization: Mixtures • Description: Mixture of the substances listed below with nonhazardous additions. • Dangerous components: CAS: 12125-02-9 Ammonium Chloride, Reagent ACS Grade • Table of Nonhazardous Ingredients CAS: 7732-18-5 Water

4 First-aid measures

· Description of first aid measures

- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Immediately rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · 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 No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- *Methods and material for containment and cleaning up:* Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to section 13.
- · 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: 12125-02-9 Ammonium Chloride, Reagent ACS Grade

· PAC-2:

CAS: 12125-02-9 Ammonium Chloride, Reagent ACS Grade

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20 mg/m³

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150 ppm

• PAC-3:

CAS: 12125-02-9 Ammonium Chloride, Reagent ACS Grade

7 Handling and storage

- · Handling:
- · Precautions for safe handling No special measures required.
- · Information about protection against explosions and fires: No special measures required.
- · 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.
- · 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: 12125-02-9 Ammonium Chloride, Reagent ACS Grade

REL Short-term value: 20 mg/m³ Long-term value: 10 mg/m³ TLV Short-term value: 20 mg/m³

Long-term value: 10 mg/m³

· Additional information: The lists that were valid during the creation were used as basis.

- · Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:
- The usual precautionary measures for handling chemicals should be followed.
- · Breathing equipment: Not required.
- · 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 \cdot **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.

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Kinematic:

· Solvent content:

Solids content:

· Other information

Water: VOC content: Reviewed on 06/10/2024

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· Eye protection: Goggles recommended during refilling.

· Body protection: Protective work clothing

9 Physical and chemical properties · Information on basic physical and chemical properties · General Information · Appearance: Form: Liquid Color: Clear water white · Odor: Slight ammonnia Not determined. · Odor threshold: · pH-value: Not determined. · Change in condition $0 \circ C (32 \circ F)$ Melting point/Melting range: **Boiling point/Boiling range:** 100 °C (212 °F) · Flash point: Not applicable. · Flammability (solid, gaseous): Not applicable. Not determined. · Decomposition temperature: Product is not selfigniting. · Ignition temperature: • Danger of explosion: Product does not present an explosion hazard. · Explosion limits: Not determined. Lower: Upper: Not determined. 23 hPa (17.3 mm Hg) · Vapor pressure at 20 °C (68 °F): • Density at 20 °C (68 °F): 1.01647 g/cm³ (8.48244 lbs/gal) · Relative density Not determined. · Vapor density Not determined. · Evaporation rate Not determined. · Solubility in / Miscibility with Water: Not miscible or difficult to mix. · Partition coefficient (n-octanol/water): Not determined. · Viscosity: Dynamic: Not determined.

Not determined.

0.0 g/l / 0.00 lb/gal

No further relevant information available.

96.9 %

0.00 %

3.1 %

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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:

· LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)

Oral LD50 16,092 mg/kg

- · Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

· 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.

<u>12 Ecological information</u>

· 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:
- Water hazard class 1 (Self-assessment): slightly hazardous for water

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

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

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· Other adverse effects No further relevant information available.

13 Disposal considerations

· Waste treatment methods

· Recommendation: Smaller quantities can be disposed of with household waste.

· Uncleaned packagings:

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

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

Ammonium Chloride, Reagent ACS Grade

· Hazardous Air Pollutants

None of the ingredients is listed.

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· Proposition 65

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· Froposition 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 Not Applicable

- · Hazard pictograms Not Applicable
- · Signal word Not Applicable

· Hazard statements Not Applicable

· Precautionary statements

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.

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, 06/10/2024: Reviewed SDS for accuracy. MH/STN Revision 0.0, 05-29-2024: Creation date for SDS. STN 06/10/2024 / 1.0 · Abbreviations and acronvms: 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)

LC50: Lethal concentration, 50 percent

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LD50: Lethal dose, 50 percent 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 • * Data compared to the previous version altered.