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

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1 Identification

· Product identifier

· Trade name: Ammonium Chloride ACS Grade

· Product code: AC8235

· CAS Number: 12125-02-9

· 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

Acute Tox. 4 H302 Harmful if swallowed.

Eye Irrit. 2A H319 Causes serious eye irritation.

- · Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms:



GHS07

· Signal word: Warning · Hazard statements:

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

· Precautionary statements:

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

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P280 Wear eye protection / face protection. (Cont'd. of page 1)

P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.

Rinse mouth. P330

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

Dispose of contents/container in accordance with local/regional/national/international P501

regulations.

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

3 Composition/information on ingredients

- Chemical characterization: Substances
- · CAS No. Description

12125-02-9 ammonium chloride

- · Components: None in reportable quantities.
- · 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:** No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

Immediately rinse with water.

If skin irritation continues, consult a doctor.

· After eye contact:

Protect unharmed eye.

Remove contact lenses if worn.

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.

Causes eye irritation.

· Danger:

Harmful if swallowed.

Causes serious eye irritation.

Indication of any immediate medical attention and special treatment needed:

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

5 Fire-fighting measures

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- 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

Ensure adequate ventilation.

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

Pick up manually.

Sweep up and place into an appropriate container.

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.

7 Handling and storage

- · Handling
- Precautions for safe handling:

Use only in well ventilated areas.

Prevent formation of dust.

Any deposit of dust which cannot be avoided must be regularly removed.

Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water.

- 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: Protect from humidity and water.
- Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizers, strong acids, strong bases.

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.

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8 Exposure controls/personal protection

· Control parameters

· Components with limit values that require monitoring at the workplace:				
Ī	12125-02-9 amr	nonium chloride		
	REL (USA)	Short-term value: 20 mg/m³ Long-term value: 10 mg/m³		
	TLV (USA)	Short-term value: 20 mg/m³ Long-term value: 10 mg/m³		
	EL (Canada)	Short-term value: 20 mg/m³ Long-term value: 10 mg/m³ fume		
	EV (Canada)	Short-term value: 20 mg/m³ Long-term value: 10 mg/m³ fume		
	LMPE (Mexico)	Short-term value: 20 mg/m³ Long-term value: 10 mg/m³		

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.

Avoid contact with the eyes and skin.

- Engineering controls: Provide adequate ventilation.
- Breathing equipment:

Not required under normal conditions of use.

For large spills, respiratory protection may be advisable.

Protection of hands:



Protective gloves

· Material of gloves

Butyl rubber, BR

Fluorocarbon rubber (Viton)

Natural rubber, NR

Nitrile rubber, NBR

Neoprene gloves

Sensibilization by the components in the glove materials is possible.

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

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No relevant information available.

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Information on basic physical and chemical properties				
Appearance:	ind chemical properties			
Form:	Solid			
Color:	Colorless			
Odor:	Odorless			
Odor threshold:	Not determined.			
pH-value:	Not determined.			
	Not applicable.			
Melting point/Melting range:	340 °C (644 °F)			
Boiling point/Boiling range:	Not determined.			
Flash point:	The product is not flammable.			
Flammability (solid, gaseous):	Not applicable.			
Auto-ignition temperature:	Not determined.			
Decomposition temperature:	Not determined.			
Danger of explosion:	Product does not present an explosion hazard.			
Explosion limits				
Lower:	Not determined.			
Upper:	Not determined.			
Oxidizing properties:	Non-oxidizing.			
Vapor pressure at 30 °C (86 °F):	<1.3 hPa (<1 mm Hg)			
Density at 20 °C (68 °F):	1.53 g/cm³ (12.77 lbs/gal)			
Relative density:	Not determined.			
Vapor density:	Not determined.			
Evaporation rate:	Not determined.			
Solubility in / Miscibility with				
Water:	Easily soluble.			
Partition coefficient (n-octanol/wat	er): Not determined.			
Viscosity				
Dynamic:	Not determined.			
Kinematic:	Not determined.			
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:

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No decomposition if used and stored according to specifications.

Possibility of hazardous reactions

Toxic fumes may be released if heated above the decomposition point.

· Conditions to avoid

Excessive heat.

Keep ignition sources away - Do not smoke.

Incompatible materials

Oxidizers

Metals.

· Hazardous decomposition products

Under fire conditions only:

Chlorine compounds

Ammonia

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

Harmful if swallowed.

Causes serious eye irritation.

LD/LC50 values that are relevant for classification:

12125-02-9 ammonium chloride

Oral LD50 1650 mg/kg (rat)

- · Primary irritant effect:
- · On the skin: Based on available data, the classification criteria are not met.
- · On the eye: Causes serious eye irritation.
- · Sensitization: Based on available data, the classification criteria are not met.
- · IARC (International Agency for Research on Cancer):

Substance is not listed.

· NTP (National Toxicology Program):

Substance is not listed.

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

Substance is not listed.

· Probable route(s) of exposure:

Ingestion.

Inhalation.

Eve contact.

Skin contact.

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

Harmful if swallowed.

Causes serious eye irritation.

- · Repeated dose toxicity: No relevant information available.
- · Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- · Carcinogenicity: Based on available data, the classification criteria are not met.
- Reproductive toxicity: Based on available data, the classification criteria are not met.
- · STOT-single exposure: Based on available data, the classification criteria are not met.

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- · STOT-repeated exposure: Based on available data, the classification criteria are not met.
- · Aspiration hazard: Based on available data, the classification criteria are not met.

12 Ecological information

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

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

· Other adverse effects No 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. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

- **Uncleaned packagings**
- · Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

4 Transport information				
· UN-Number · DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.			
· UN proper shipping name	Not regulated.			
DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.			
Transport hazard class(es)				
· DOT, ADR/RID/ADN, IMDG, IATA · Class	Not regulated.			
Packing group				
· DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.			
Environmental hazards	Not applicable.			
Special precautions for user	Not applicable.			
		(Cont'd. on page 8		

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

Not applicable.

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- · United States (USA)
- ·SARA
- · Section 302 (extremely hazardous substances):

Substance is not listed.

· Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act)

All ingredients are listed or exempt.

- · Proposition 65 (California)
- · Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause developmental toxicity for females:

Substance is not listed.

· Chemicals known to cause developmental toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

· EPA (Environmental Protection Agency):

Substance is not listed.

· IARC (International Agency for Research on Cancer):

Substance is not listed.

· Canadian Domestic Substances List (DSL):

Substance is not 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

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LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration

Acute Tox. 4: Acute toxicity - Category 4

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

· 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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