



SAFETY DATA SHEET

1. Product and Company Identification

Product Name	Ammonium chloride solution, 0.1M
Product Number	R001047
Product Use	Calibration Solution for Ion Selective Electrode
Manufacturer	Van London Company
Address	10540 Rockley Road, Houston, Texas 77099
Telephone	832-456-6641
Emergency Phone	832-456-6641

2. Hazards Identification

Emergency Overview

OSHA Hazards

Acute aquatic toxicity (Category 3), H402 - Harmful to aquatic life.

Chronic aquatic toxicity (Category 3), H412 - Harmful to aquatic life with long lasting effects.

HMIS Classification

Health Hazard: 0

Flammability: 0

Physical Hazards: 0

NFPA Rating

Health Hazard: 0

Fire: 0

Reactivity Hazard: 0

Potential Health Effects

Inhalation: No effects anticipated

Skin: No effects anticipated

Eyes: No effects anticipated

Ingestion: No effects anticipated

3. Composition/Information on Ingredients

Component	CAS Number	Weight %
Ammonium chloride	12125-02-9	0.5
Silver chloride	7783-90-6	0.001
Deionized water	7732-18-5	99.499

4. First Aid Measures

Eye	Flush eyes with plenty of water as a precaution.
Skin	Wash off with soap and plenty of water.
Inhalation	Move person into fresh air. If not breathing, give artificial respiration.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. Fire Fighting Measures

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Hazardous combustion products	Ammonia, Hydrogen chloride gas, nitrogen oxides (NOx).
Special protective equipment for firefighters	Wear self contained breathing apparatus for fire fighting if necessary.

6. Accidental Release Measures

Personal precautions

Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Environmental precautions

Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

7. Handling and Storage

Handling	Avoid contact with eyes. Avoid inhalation of vapour or mist. Wash thoroughly after handling.
Storage	Keep container tightly closed and upright in a dry and well-ventilated place. Store at ambient or lower temperature. Protect against physical damage.

8. Exposure Controls and Personal Protection

Exposure Limits	Contains no substances with occupational exposure limit values
Engineering Controls	Maintain general industrial hygiene practices when using this product.
Personal Protective Equipment	Respiratory Protection Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Hand Protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Wash and dry hands after handling. Eye Protection Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU). Skin and body protection Impervious clothing. Hygiene measures General industrial hygiene practice.

9. Physical and Chemical Properties

Appearance	Clear, colorless liquid
Odor	None
Odor Threshold	No data available
pH	5.4 - 8.0
Freezing Point	0°C

Boiling Point	100°C
Flash Point	No data available
Evaporation rate	No data available
Flammability	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapor pressure	No data available
Solubility	Soluble in water
Vapor density	No data available
Relative density	0.995 g/cm ³ at 25°C (77°F)
Partition coefficient:	
n-octanol/water	No data available
Auto-Ignition temperature	No data available
Decomposition temperature	No data available
Density	No data available
Viscosity	No data available

10. Stability and Reactivity

Chemical Stability	Stable under recommended storage conditions.
Possibility of Hazardous reactions	No data available
Conditions to avoid	No data available
Materials to avoid	Strong acids, Strong bases, Strong oxidizing agents.
Hazardous decomposition products	No data available

11. Toxicological Information

Signs and Symptoms of Overexposure	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.	
Acute Effects	Eye Contact	No data available
	Skin Contact	No data available
	Inhalation	No data available
	Ingestion	No data available
	Germ Cell Mutagenicity	No data available
Target Organ Effects	No data available	
Chronic Effects	No data available	
Medical Conditions	No data available	
Aggravated by Exposure		
Acute Toxicity Values	Oral LD50	None reported
	Inhalation LC50	None reported
	Dermal LD50	None reported
Carcinogenicity	IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
	ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
	NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity No data available

Teratogenicity No data available

Specific target organ toxicity - single exposure - No data available

Specific target organ toxicity - repeated exposure - No data available

Aspiration Hazard No data available

Potential Inhalation No data available

Health Ingestion No data available

Effects Skin No data available

Eyes No data available

12. Ecological Information

Toxicity No data available

Persistence & degradability No data available

Bioaccumulative potential No data available

Mobility in soil No data available

Other adverse effects Harmful to aquatic life.

13. Disposal Considerations

Disposal method Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging Dispose of as unused product.

14. Transport Information

DOT (US) Not dangerous goods

IMDG Not dangerous goods

IATA Not dangerous goods

15. Regulatory Information

OSHA Hazards No known OSHA hazards

SARA 302 Components No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components The following components are subject to reporting levels established by SARA Title III, Section 313:

Ammonium chloride	CAS-No.	Revision Date:
	12125-02-9	1994-04-01

SARA 311/312 Hazards Acute Health Hazard

Massachusetts Right To Know Components	Ammonium chloride	CAS-No.	Revision Date:
		12125-02-9	1994-04-01

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Water	7732-18-5	
Ammonium chloride	12125-02-9	1994-04-01
Silver chloride	7783-90-6	

New Jersey Right To Know Components

	CAS-No.	Revision Date
Water	7732-18-5	
Ammonium chloride	12125-02-9	1994-04-01

California Prop. 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other Information

Issuing Date 12/16/2015

Revision No. 1.1

Disclaimer The information contained herein is accurate to the best of our knowledge, but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Van London pHOenix Company makes no warranty of any kind, expressed, or implied, concerning the safe use of this material in your process or in combination with other substances. Van London pHOenix Company shall not be held liable for any damage resulting from handling or from contact with the above product.