



## SAFETY DATA SHEET

### 1. Product and Company Identification

Product Name	Ammonium chloride solution, 1,000 ppm & 10,000 ppm
Product Number	NH3AS02, NH3AS04, NH4AS02, NH4AS04
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	< 3.2
Deionized water	7732-18-5	> 96.8

### 4. First Aid Measures

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

### 5. Fire Fighting Measures

<b>Suitable extinguishing media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
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**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

<b>Lower explosion limit</b>	No data available
<b>Upper explosion limit</b>	No data available
<b>Vapor pressure</b>	No data available
<b>Solubility</b>	Soluble in water
<b>Vapor density</b>	No data available
<b>Relative density</b>	0.995 g/cm <sup>3</sup> at 25°C (77°F)
<b>Partition coefficient:</b>	
<b>n-octanol/water</b>	No data available
<b>Auto-Ignition temperature</b>	No data available
<b>Decomposition temperature</b>	No data available
<b>Density</b>	No data available
<b>Viscosity</b>	No data available

#### 10. Stability and Reactivity

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

#### 11. Toxicological Information

<b>Signs and Symptoms of Overexposure</b>	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.	
<b>Acute Effects</b>	<b>Eye Contact</b>	No data available
	<b>Skin Contact</b>	No data available
	<b>Inhalation</b>	No data available
	<b>Ingestion</b>	No data available
	<b>Germ Cell Mutagenicity</b>	No data available
<b>Target Organ Effects</b>	No data available	
<b>Chronic Effects</b>	No data available	
<b>Medical Conditions</b>	No data available	
<b>Aggravated by Exposure</b>		
<b>Acute Toxicity Values</b>	<b>Oral LD50</b>	None reported
	<b>Inhalation LC50</b>	None reported
	<b>Dermal LD50</b>	None reported
<b>Carcinogenicity</b>	<b>IARC</b>	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.
	<b>ACGIH</b>	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.
	<b>NTP</b>	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.
	<b>OSHA</b>	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.
<b>Reproductive Toxicity</b>	No data available	
<b>Teratogenicity</b>	No data available	

**Specific target organ toxicity - No data available  
single exposure**

**Specific target organ toxicity - No data available  
repeated exposure**

<b>Aspiration Hazard</b>		No data available
<b>Potential</b>	<b>Inhalation</b>	No data available
<b>Health</b>	<b>Ingestion</b>	No data available
<b>Effects</b>	<b>Skin</b>	No data available
	<b>Eyes</b>	No data available

## 12. Ecological Information

<b>Toxicity</b>	No data available
<b>Persistence &amp; degradability</b>	No data available
<b>Bioaccumulative potential</b>	No data available
<b>Mobility in soil</b>	No data available
<b>Other adverse effects</b>	Harmful to aquatic life.

## 13. Disposal Considerations

<b>Disposal method</b>	Offer surplus and non-recyclable solutions to a licensed disposal company.
<b>Contaminated packaging</b>	Dispose of as unused product.

## 14. Transport Information

<b>DOT (US)</b>	Not dangerous goods
<b>IMDG</b>	Not dangerous goods
<b>IATA</b>	Not dangerous goods

## 15. Regulatory Information

<b>OSHA Hazards</b>	No known OSHA hazards		
<b>SARA 302 Components</b>	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.		
<b>SARA 313 Components</b>	The following components are subject to reporting levels established by SARA Title III, Section 313:		
	Ammonium chloride	CAS-No. 12125-02-9	Revision Date: 1994-04-01
<b>SARA 311/312 Hazards</b>	Acute Health Hazard		
<b>Massachusetts Right To Know Components</b>	Ammonium chloride	CAS-No. 12125-02-9	Revision Date: 1994-04-01
<b>Pennsylvania Right To Know Components</b>		CAS-No.	Revision Date
Water		7732-18-5	
Ammonium chloride		12125-02-9	1994-04-01
<b>New Jersey Right To Know Components</b>		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

<b>Issuing Date</b>	12/16/2015
<b>Revision No.</b>	1.1

Version 1.1

Revision Date: 12/16/2015

**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.