



# SAFETY DATA SHEET

Revision Date 15-Nov-2018

WAI1 - AGHS - OSHA

Revision Number 2

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product Identifier

|                               |                                    |
|-------------------------------|------------------------------------|
| <b>Product Name</b>           | Ammonia Electrode Storage Solution |
| <b>Product No</b>             | 951213                             |
| <b>Pure substance/mixture</b> | Mixture                            |

### Relevant identified uses of the substance or mixture and uses advised against

|                                         |                                                                                                                                                            |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Recommended Use</b>                  | Use as laboratory reagent                                                                                                                                  |
| <b>Uses advised against</b>             | No Information available                                                                                                                                   |
| <b>Manufacturer, Importer, Supplier</b> | Thermo Fisher Scientific©<br>Water and Lab Products<br>22 Alpha Road<br>Chelmsford, MA 01824, USA<br>1-978-232-6000                                        |
| <b>E-mail address</b>                   | <a href="mailto:info.water@thermo.com">info.water@thermo.com</a>                                                                                           |
| <b>Made in</b>                          | USA                                                                                                                                                        |
| <b>Emergency Telephone</b>              | 24 Hour Emergency Phone Number<br>CHEMTREC®<br>Within USA and Canada: 1-800-424-9300<br>Outside USA and Canada: 1-703-527-3887<br>(collect calls accepted) |

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

### Label Elements

#### **Emergency Overview**

The product contains no substances which at their given concentration, are considered to be hazardous to health

**Appearance** Clear

**Physical State** Liquid

**Odor** None

### Precautionary Statements

#### Hazards not otherwise classified (HNOC)

No information available

#### Other Information

No information available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component         | CAS-No     | Weight %   |
|-------------------|------------|------------|
| Water             | 7732-18-5  | >90.0%     |
| Ammonium Chloride | 12125-02-9 | 0.1 - 1.0% |

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

## 4. FIRST AID MEASURES

### First aid measures

|                       |                                                                                                                                                                                   |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General Advice</b> | Use first aid treatment according to the nature of the injury. Get medical attention immediately if symptoms occur. Show this safety data sheet to the doctor in attendance.      |
| <b>Eye Contact</b>    | Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention.                                                                                             |
| <b>Skin Contact</b>   | Wash off immediately with soap and plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. In case of skin reactions, consult a physician. |
| <b>Inhalation</b>     | Move to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.                                                                               |
| <b>Ingestion</b>      | Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting. Call a                                                                                       |

physician or Poison Control Center immediately.

**Self-Protection of the First Aider** Use personal protective equipment. See section 8 for more information. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

**Most important symptoms and effects, both acute and delayed**

**Most important symptoms and effects** No information available

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Treat symptomatically

**5. FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**

No information available

**Specific Hazards Arising from the Chemical**

No information available.

**Explosion Data**

**Sensitivity to Mechanical Impact** None

**Sensitivity to Static Discharge** None

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, Protective Equipment and Emergency Procedures**

**Personal Precautions** Use personal protective equipment. For further specification, refer to section 8 of the SDS. Evacuate personnel to safe areas.

**Environmental Precautions** Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

**Methods and Material for Containment and Cleaning Up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Cleaning Up** Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

**7. HANDLING AND STORAGE**

**Precautions for Safe Handling**

**Handling** To avoid risks to human health and the environment, comply with the instructions for use  
Wear personal protective equipment  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Ensure adequate ventilation, especially in confined areas

**Conditions for Safe Storage, Including any Incompatibilities**

**Storage** Keep container tightly closed in a dry and well-ventilated place  
Store at room temperature in the original container  
Keep away from direct sunlight

**Incompatible Products** No information available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

| Component                       | ACGIH TLV                                               | OSHA PEL                                                                    | NIOSH IDLH                                              |
|---------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------|
| Ammonium Chloride<br>12125-02-9 | TWA: 10 mg/m <sup>3</sup><br>STEL: 20 mg/m <sup>3</sup> | (Vacated) TWA: 10 mg/m <sup>3</sup><br>(Vacated) STEL: 20 mg/m <sup>3</sup> | TWA: 10 mg/m <sup>3</sup><br>STEL: 20 mg/m <sup>3</sup> |

#### Appropriate engineering controls

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems

#### Individual protection measures, such as personal protective equipment

**Eye/face Protection** Wear chemical splash goggles and face shield. If splashes are likely to occur, wear:  
Face-shield.

**Skin and Body Protection** Wear protective gloves/clothing.

**Respiratory Protection** None under normal use conditions. In case of inadequate ventilation wear respiratory protection.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

|                |                          |
|----------------|--------------------------|
| Physical State | Liquid                   |
| Appearance     | Clear                    |
| Odor           | None                     |
| Odor Threshold | No information available |
| pH             | 6.5                      |
| PH Range       | 5.0 - 8.0                |

| <u>Property</u>              | <u>Values</u>            | <u>Remarks • Method</u> |
|------------------------------|--------------------------|-------------------------|
| Melting point/freezing point | No information available |                         |
| Boiling Point/Range          | ~ 100 °C / 212 °F        |                         |
| Flash Point (High in °C)     | N/A                      |                         |
| Evaporation Rate             | No information available |                         |
| Flammability (solid, gas)    | No information available |                         |
| Flammability Limit in Air    |                          |                         |
| Upper flammability limit:    | No information available |                         |
| Lower flammability limit:    | No information available |                         |
| Vapor pressure               | No information available |                         |
| Vapor Density                | No information available |                         |
| Specific Gravity             | No information available |                         |
| Water Solubility             | soluble                  |                         |
| Solubility in other solvents | No information available |                         |
| Partition coefficient        | No information available |                         |
| Autoignition Temperature     | -                        |                         |

|                                  |                          |
|----------------------------------|--------------------------|
| <b>Decomposition Temperature</b> | No information available |
| <b>Kinematic viscosity</b>       | No information available |
| <b>Dynamic viscosity</b>         | No information available |
| <b>Explosive Properties</b>      | No information available |
| <b>Oxidizing Properties</b>      | No information available |

**Other Information**

|                         |                          |
|-------------------------|--------------------------|
| <b>Softening Point</b>  | No information available |
| <b>Molecular Weight</b> | No information available |
| <b>VOC Content(%)</b>   | 0                        |
| <b>Density</b>          | No Information available |
| <b>Bulk Density</b>     | No information available |

## 10. STABILITY AND REACTIVITY

**Reactivity**

No Information available

**Chemical Stability**

Stable under normal conditions

**Possibility of Hazardous Reactions**

None under normal processing

**Conditions to Avoid**

Extremes of temperature and direct sunlight.

**Incompatible Materials**

No information available

**Hazardous Decomposition Products**

Thermal decomposition can lead to release of irritating gases and vapors.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

|                     |                          |
|---------------------|--------------------------|
| <b>Inhalation</b>   | No information available |
| <b>Eye Contact</b>  | No information available |
| <b>Skin Contact</b> | No information available |
| <b>Ingestion</b>    | No information available |

**Information on Toxicological Effects**

|                 |                          |
|-----------------|--------------------------|
| <b>Symptoms</b> | No information available |
|-----------------|--------------------------|

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

|                             |                           |
|-----------------------------|---------------------------|
| <b>Sensitization</b>        | No information available  |
| <b>Mutagenic Effects</b>    | No information available  |
| <b>Carcinogenicity</b>      | No information available. |
| <b>Reproductive Effects</b> | No information available  |

**STOT - single exposure** No information available

**STOT - repeated exposure** No information available

**Aspiration hazard** No information available

**Numerical measures of toxicity - Product Information**

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

| Component                       | Freshwater Algae | Freshwater Fish                                                                                     | Water Flea                               |
|---------------------------------|------------------|-----------------------------------------------------------------------------------------------------|------------------------------------------|
| Ammonium Chloride<br>12125-02-9 | -                | LC50: = 725 mg/L, 24h (Lepomis<br>macrochirus)<br>LC50: = 209 mg/L, 96h static<br>(Cyprinus carpio) | LC50: = 202 mg/L, 24h (Daphnia<br>magna) |

### Persistence and Degradability

No information available

### Bioaccumulation/ Accumulation

No information available

### Mobility

No information available.

### Other adverse effects

No information available

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

**Waste Disposal Methods** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging** Improper disposal or reuse of this container may be dangerous and illegal.

## 14. TRANSPORT INFORMATION

DOT Not regulated

ICAO Not regulated

IATA Not regulated

IMDG/IMO Not regulated

## 15. REGULATORY INFORMATION

**International Inventories**

|                      |          |
|----------------------|----------|
| <b>USINV</b>         | Complies |
| <b>CANINV</b>        | Complies |
| <b>EINECS/ELINCS</b> | Complies |
| <b>ENCS</b>          | Complies |
| <b>IECSC</b>         | Complies |
| <b>KECL</b>          | Complies |
| <b>PICCS</b>         | Complies |
| <b>AICS</b>          | Complies |

**Legend:**

**USINV/ TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**CANINV/ DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
**ENCS** - Japanese Existing and New Chemical Substances  
**IECSC** - Chinese Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

**U.S. Federal Regulations**

**SARA 313**

| <b>Component</b>               | <b>Weight %</b> | <b>SARA 313 - Threshold Values %</b> |
|--------------------------------|-----------------|--------------------------------------|
| Ammonium Chloride - 12125-02-9 | 0-3             | 1.0                                  |

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

**CWA (Clean Water Act)**

| <b>Component</b>                | <b>CWA - Reportable Quantities</b> | <b>CWA - Toxic Pollutants</b> | <b>CWA - Priority Pollutants</b> | <b>CWA - Hazardous Substances</b> |
|---------------------------------|------------------------------------|-------------------------------|----------------------------------|-----------------------------------|
| Ammonium Chloride<br>12125-02-9 | 5000 lb                            | -                             | -                                | X                                 |

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| <b>Component</b>                | <b>Hazardous Substances RQs</b> | <b>CERCLA EHS RQs</b> | <b>RQ</b>                                  |
|---------------------------------|---------------------------------|-----------------------|--------------------------------------------|
| Ammonium Chloride<br>12125-02-9 | 5000 lb                         | -                     | RQ 5000 lb final RQ<br>RQ 2270 kg final RQ |

**U.S. State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

**U.S. EPA Label Information**

No information available

**16. OTHER INFORMATION**

|                            |                                |
|----------------------------|--------------------------------|
| <b>Prepared By</b>         | Regulatory Affairs             |
| <b>Prepared For</b>        | Thermo Fisher Scientific Inc.© |
| <b>Issue Date</b>          | No information available       |
| <b>Revision Date</b>       | 15-Nov-2018                    |
| <b>Reason for revision</b> | SDS sections updated.          |

**Disclaimer**

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**End of Safety Data Sheet**