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

Product Name Ammonia Electrode Storage Solution

Product No 951213

Pure substance/mixture Mixture

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

Recommended Use Use as laboratory reagent

Uses advised against No Information available

Manufacturer, Importer, Supplier Thermo Fisher Scientific©

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(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

General Advice 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.

Eye Contact Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention.

Skin Contact 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.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms

occur.

Ingestion Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting. Call a

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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

No information available

effects

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 PrecautionsUse personal protective equipment. For further specification, refer to section 8 of the SDS.

Evacuate personnel to safe areas.

Environmental PrecautionsBeware 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

HandlingTo 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

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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	TWA: 10 mg/m ³	(Vacated) TWA: 10 mg/m ³	TWA: 10 mg/m ³
12125-02-9	STEL: 20 mg/m ³	(Vacated) STEL: 20 mg/m ³	STEL: 20 mg/m ³

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 ProtectionNone 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

Property Values Remarks • Method

Melting point/freezing pointNo information availableBoiling Point/Range~ 100 °C / 212 °F

Flash Point (High in °C) N/A

Evaporation RateFlammability (solid, gas)
No information available
No information available

Flammability Limit in Air

Upper flammability limit:
Lower flammability limit:
Vapor pressure
Vapor Density
Specific Gravity

No information available
No information available
No information available
No information available

Water Solubility soluble

Solubility in other solvents

Partition coefficient

No information available
No information available

Autoignition Temperature -

Ammonia Electrode Storage Solution

Decomposition TemperatureNo information availableKinematic viscosityNo information availableDynamic viscosityNo information availableExplosive PropertiesNo information availableOxidizing PropertiesNo information available

Other Information

Softening Point No information available Molecular Weight No information available

VOC Content(%)

DensityNo Information availableBulk DensityNo 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

Inhalation No information available

Eye Contact No information available

Skin Contact No information available

Ingestion No information available

Information on Toxicological Effects

Symptoms No information available

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

Sensitization No information available

Mutagenic Effects No information available

Carcinogenicity No information available.

Reproductive Effects No information available

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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	-	LC50: = 725 mg/L, 24h (Lepomis	LC50: = 202 mg/L, 24h (Daphnia
12125-02-9		macrochirus) LC50: = 209 mg/L, 96h static (Cyprinus carpio)	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

DOTNot regulatedICAONot regulatedIATANot regulatedIMDG/IMONot regulated

15. REGULATORY INFORMATION

International Inventories

USINV Complies **CANINV** Complies **EINECS/ELINCS** Complies **ENCS** Complies Complies **IECSC KECL** Complies **PICCS** Complies **AICS** Complies

Legend:

USINV/ TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

CANINY/ 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

Component	Weight %	SARA 313 - Threshold Values %
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)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ammonium Chloride 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)

Component	Hazardous Substances RQs	CERCLA EHS RQs	RQ
Ammonium Chloride	5000 lb	=	RQ 5000 lb final RQ
12125-02-9			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

Prepared By Regulatory Affairs

Prepared For Thermo Fisher Scientific Inc.©

Issue Date No information available

Revision Date 15-Nov-2018

Reason for revision SDS sections updated.

Disclaimer

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End of Safety Data Sheet