

SAFETY DATA SHEET

Revision Date 18-May-2015 WAI1 - AGHS - OSHA **Revision Number** 1 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING **Product Identifier Product Name** Ammonia Standard Product Number(s) 951007 Pure substance/mixture Mixture Relevant identified uses of the substance or mixture and uses advised against **Recommended Use** Use as laboratory reagent No Information available Uses advised against Manufacturer/Supplier Thermo Fisher Scientific© Water and Lab Products 22 Alpha Road Chelmsford, MA 01824, USA 1-978-232-6000 info.water@thermo.com E-mail address Made in USA Emergency Telephone 24 Hour Emergency Phone Number CHEMTREC® Within USA and Canada: 1-800-424-9300 Outside USA and Canada: 1-703-527-3887 (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

Safety data sheet available on request

Precautionary Statements

Do not handle until all safety information has been read and understood.

Hazards not otherwise classified (HNOC)

No information available

Other Information

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %	Trade Secret
Water	7732-18-5	90 - 100%	*
Ammonium Chloride	12125-02-9	0 - 10%	*

*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. Obtain medical attention. Skin Contact Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes. If skin reactions occur, contact a physician. Inhalation Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, obtain medical attention. Ingestion Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting. Call a

physician or Poison Control Center immediately.

Protection of First-aiders Use personal protective equipment. See Section 8 for more detail. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce 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/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 PrecautionsUse personal protective equipment. Refer to Section 8. 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

Handling To avoid risks to human health and the environment, comply with the instruct Wear personal protective equipment Avoid breathing dust/fume/gas/mist/vapours/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	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
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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. If splashes are likely to occur, wear:. Face-shield.
Skin and Body Protection	Wear protective gloves/clothing.
Respiratory Protection	None required under normal usage. In case of inadequate ventilation wear respiratory protection.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State
Appearance
Odor
Odor Threshold
pH Range

Liquid Clear None No information available 5.0 - 8.0

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

Other Information

Product Number(s) 951007

Remarks • Method

Softening Point Molecular Weight VOC Content(%) Density Bulk Density No information available No information available No information available No Information available 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

Inhalation	No information available
Eye Contact	No information available
Skin Contact	No information available
Ingestion	No information available

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water 7732-18-5	> 90 mL/kg (Rat)	-	-
Ammonium Chloride 12125-02-9	= 1650 mg/kg (Rat)	-	-

Information on Toxicological Effects

Symptoms	No information available		
Delayed and immediate effects as w	ell 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		
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

Component	Freshwater Algae	Freshwater Fish	Water Flea
Ammonium Chloride 12125-02-9	-	725: 24 h Lepomis macrochirus mg/L LC50 209: 96 h Cyprinus	202: 24 h Daphnia magna mg/L LC50
		carpio mg/L LC50 static	

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
TDG	Not regulated
MEX	Not regulated
ICAO	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated
RID	Not regulated
ADR	Not regulated
ADN	Not regulated

15. REGULATORY INFORMATION	
International Inventories	
USINV	Complies

EN

Complies Complies Does not Comply Complies Complies Complies
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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

Component	SARA 313 - Threshold Values %
Ammonium Chloride - 12125-02-9	1.0

SARA 311/312 Hazardous Categorization

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ammonium Chloride 12125-02-9	5000 lb	-	-	Х

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

State Right-to-Know

Component	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	Х
Ammonium Chloride 12125-02-9	Х	Х	Х

U.S. EPA Label Information

No information available

16. OTHER INFORMATION

Prepared By	Environmental, Health and Safety
Prepared For	Thermo Fisher Scientific Inc.©
Issue Date	No information available
Revision Date	18-May-2015
Expiration Date	SDS is valid 3 years from revision date. Contact wai.techservbev@thermofisher.com for the latest revision.
Reason for revision	Update to CLP Format

Disclaimer

IMPORTANT: The information contained in this SDS is correct to the best of our knowledge as of the issue date (or subsequent revision date, if any), and is to be used only as a guide. This SDS does not constitute a guarantee (express or implied) of any kind and we make no warranties of any kind as to the accuracy or completeness of the information contained herein or the merchantability or fitness of the product or this information for a particular purpose. It is the responsibility of each individual buyer/user to determine the suitability of this information and the product for its intended purposes. Product sales are subject to Thermo Fisher Scientifics standard terms and conditions of sale. This information relates only to the designated product as shipped and may not be valid if the product is used in combination with any other materials or is not used in accordance with our instructions, or is altered in any way. It is the responsibility of the buyer/user to ensure that its activities comply with all applicable government requirements. Since conditions of use of the product are not under direct control of Thermo Fisher Scientific, it is the duty of the buyer/user to determine the necessary conditions for the safe use of the product. Thermo Fisher Scientific will not be liable for any injuries or damages resulting from handling, use, misuse or contact with the product.

End of Safety Data Sheet