



SAFETY DATA SHEET

Revision Date 09-Oct-2019

WAI1 - AGHS - OSHA

Revision Number 4

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

Product Identifier

Product Name Ag/AgCl Reference Electrode Filling Solution
Product No 900011
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©
Water and Lab Products
22 Alpha Road
Chelmsford, MA 01824, USA
1-978-232-6000
E-mail address info.water@thermo.com
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 considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A

Label Elements

Emergency Overview

Warning

Hazard Statements

Causes skin irritation

Causes serious eye irritation

Very toxic to aquatic life with long lasting effects



Appearance Clear

Physical State Liquid

Odor None

Precautionary Statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling

Wear protective gloves/protective clothing/eye protection/face protection

Avoid release to the environment

Response

Specific treatment (see supplemental instructions on the administration of antidotes on this label)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

IF ON SKIN: Wash with plenty of soap and water

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

Collect spillage

Disposal

Dispose of contents/container to an approved waste disposal plant

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	60 - 70%
Potassium Chloride	7447-40-7	20 - 30%
Silver Nitrate	7761-88-8	0.1 - 1.0%
Triton® X-100	9002-93-1	<0.1%

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

4. FIRST AID MEASURES

First aid measures

General Advice	If symptoms persist, call a physician.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
Inhalation	Move to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
Ingestion	Clean mouth with water and drink afterwards plenty of water.
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	None reasonably foreseeable
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically
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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 Ensure adequate ventilation. Use personal protective equipment.
Environmental Precautions Do not flush into surface water or sanitary sewer system.

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 Wear personal protective equipment
Ensure adequate ventilation
Do not get in eyes, on skin, or on clothing
Avoid ingestion and inhalation

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
Silver Nitrate 7761-88-8	TWA: 0.01 mg/m ³	(Vacated) TWA: 0.01 mg/m ³	IDLH: 10 mg/m ³ TWA: 0.01 mg/m ³

Legend

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Appropriate engineering controls

Engineering Measures Ensure that eyewash stations and safety showers are close to the workstation location

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	6.75
PH Range	5.0 - 9.0

<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 in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition Temperature	-	
Decomposition Temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive Properties	No information available	
Oxidizing Properties	No information available	

Other Information

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

Product Information

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

(b) skin corrosion/irritation; Sensitization	Category 2. 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 Target Organs	No information available None known.
Aspiration hazard	No information available

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .
ATEmix (oral) 8329 mg/kg

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
Potassium Chloride 7447-40-7	EC50: = 2500 mg/L, 72h (Desmodesmus subspicatus)	LC50: = 1060 mg/L, 96h static (Lepomis macrochirus) LC50: 750 - 1020 mg/L, 96h static (Pimephales promelas)	EC50: = 83 mg/L, 48h Static (Daphnia magna) EC50: = 825 mg/L, 48h (Daphnia magna)
Silver Nitrate 7761-88-8	-	LC50: = 0.0027 mg/L, 96h semi-static (Cyprinus carpio) LC50: = 0.009 mg/L, 96h (Pimephales promelas) LC50: 0.0064 - 0.0106 mg/L, 96h semi-static (Pimephales promelas) LC50: 0.00181 - 0.00214 mg/L, 96h	EC50: 0.0008 - 0.001 mg/L, 48h Flow through (Daphnia magna) EC50: 0.0008 - 0.0011 mg/L, 48h Static (Daphnia magna) EC50: = 0.0006 mg/L, 48h (Daphnia magna)

		static (Pimephales promelas) LC50: 0.00452 - 0.00638 mg/L, 96h flow-through (Pimephales promelas) LC50: 0.00512 - 0.00787 mg/L, 96h semi-static (Poecilia reticulata) LC50: = 0.0075 mg/L, 96h semi-static (Oncorhynchus mykiss) LC50: 0.001339 - 0.001637 mg/L, 96h flow-through (Oncorhynchus mykiss) LC50: 0.05 - 0.07 mg/L, 96h static (Lepomis macrochirus) LC50: 0.0242 - 0.0484 mg/L, 96h semi-static (Lepomis macrochirus) LC50: 0.009 - 0.02 mg/L, 96h flow-through (Lepomis macrochirus) LC50: 0.00839 - 0.1802 mg/L, 96h static (Oncorhynchus mykiss)	
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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

Dispose of this container to hazardous or special waste collection point.

Component	CAWAST
Silver Nitrate 7761-88-8	Toxic

14. TRANSPORT INFORMATION

DOT Not regulated

ICAO Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

United States of America Inventory Complies
CANINV Complies

EINECS/ELINCS	Does not Comply
ENCS	Does not Comply
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

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

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
Silver Nitrate 7761-88-8	1 lb	X	-	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
Silver Nitrate 7761-88-8	1 lb	-	RQ 1 lb final RQ RQ 0.454 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	09-Oct-2019
Reason for revision	SDS sections updated.

Disclaimer

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End of Safety Data Sheet