

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

Product identifier

Product name Salinity Titration Reagent B

Other means of identification

Product Code(s) 7461

UN-No 3082

Recommended use of the chemical and restrictions on use

Recommended Use Use as a laboratory reagent. Laboratory chemicals. Industrial (not for food or food contact use).

Details of the supplier of the safety data sheet

LaMotte Company, Inc.
802 Washington Avenue
P.O. Box 329
Chestertown, MD 21620 USA
T 410-778-3100
F 410-778-9748

Emergency telephone number

24 Hour Emergency Number (CHEM-TEL): USA, Canada, Puerto Rico 1-800-255-3924 Outside North American Continent (Call collect) 813-248-0585

2. HAZARDS IDENTIFICATION

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 1B

EMERGENCY OVERVIEW

DANGER

Hazard statements

Causes skin irritation. Causes serious eye irritation. May cause cancer.



Appearance Clear, colorless

Physical state liquid

Odor None

Precautionary Statements - Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Wear eye/face protection.

Precautionary Statements - Response

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.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF SWALLOWED: Drink 1 or 2 glasses of water. Call a physician immediately.

Precautionary Statements - Storage

Store locked up.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

Other Hazards

Very toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS*

Chemical name	CAS No	Weight-%
Silver nitrate	7761-88-8	3

4. FIRST AID MEASURES**First Aid Measures**

General advice	Do not get in eyes, on skin, or on clothing.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Call a physician immediately.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes. Take off contaminated clothing and wash before reuse. Consult a physician.
Inhalation	Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and contact emergency personnel.
Ingestion	Induce vomiting, but only if victim is fully conscious. Drink 1 or 2 glasses of water. Consult a physician.
<u>Self-protection of the first aider</u>	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.

5. FIREFIGHTING MEASURES**Suitable extinguishing media**

Dry chemical, CO₂, alcohol-resistant foam or water spray.

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. Wear protective gloves/clothing and eye/face protection. See section 8. Avoid contact with skin, eyes, and inhalation of vapors. Silver nitrate leaves dark discolorations on skin and clothing that is difficult to remove and can be permanent.
-----------------------------	--

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Do not flush to sewer. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

Methods for cleaning up Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Prevent contact with skin, eyes, and clothing. Do not taste or swallow. Do not eat, drink, or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight. Keep away from heat, moisture, and incompatibles. Store at room temperature.

Incompatible Products Strong reducing agents. Strong bases. Ammonia.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Silver nitrate 7761-88-8	TWA: 0.01 mg/m ³ Ag	TWA: 0.01 mg/m ³ Ag (vacated) TWA: 0.01 mg/m ³ Ag	IDLH: 10 mg/m ³ Ag TWA: 0.01 mg/m ³ Ag

NIOSH IDLH: *Immediately Dangerous to Life or Health*

Appropriate engineering controls

Engineering Measures Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear protective gloves/clothing. Nitrile rubber. Gloves & Lab Coat.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid	Odor	None
Appearance	Clear, colorless		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	5	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	Not Applicable	
Evaporation rate		
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	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
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	~1.000g/cm ³
Bulk density	No information available

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions of use and storage. Light sensitive.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Direct sunlight. Excessive heat. Incompatible products.
Incompatible materials	Strong reducing agents. Strong bases. Ammonia.
Hazardous decomposition products	Nitrogen oxides (NOx). Silver/Silver Oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Component identification**

Chemical name	ATEmix (oral)	ATEmix (dermal)	Inhalation LC50
Silver nitrate 7761-88-8	= 1173 mg/kg (Rat)	Not Established	Not Established

Information on toxicological effects

Chemical name	ACGIH	IARC	NTP	OSHA
Silver nitrate 7761-88-8	Not Established	Group 2A	Not Established	X

Chronic toxicity Repeated inhalation or ingestion of silver compounds may cause Argyria characterized by permanent bluish discoloration of the skin, eyes, mucous membrane, and internal organs.

ATEmix (oral) 42,967.00 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity**Unknown Aquatic Toxicity** 97.27 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical name	Toxicity to Algae	Toxicity to Fish	Daphnia Magna (Water Flea)
Silver nitrate 7761-88-8	Not Established	0.001339 - 0.001637: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.00181 - 0.00214: 96 h Pimephales promelas mg/L LC50 static 0.00452 - 0.00638: 96 h Pimephales promelas mg/L LC50 flow-through 0.00512 - 0.00787: 96 h Poecilia reticulata mg/L LC50 semi-static 0.0064 - 0.0106: 96 h Pimephales promelas mg/L LC50 semi-static 0.00839 - 0.1802: 96 h Oncorhynchus mykiss mg/L LC50 static 0.009 - 0.02: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.0242 - 0.0484: 96 h Lepomis macrochirus mg/L LC50 semi-static 0.05 - 0.07: 96 h Lepomis macrochirus mg/L LC50 static 0.0027: 96 h Cyprinus carpio mg/L LC50 semi-static 0.0075: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 0.009: 96 h Pimephales promelas mg/L LC50	0.0008 - 0.001: 48 h Daphnia magna mg/L EC50 Flow through 0.0008 - 0.0011: 48 h Daphnia magna mg/L EC50 Static 0.0006: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

Chemical name	Log Pow
Silver nitrate 7761-88-8	Not Established

13. DISPOSAL CONSIDERATIONS**Disposal Methods**

This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261). Dispose of contents/containers in accordance with local regulations.

Contaminated packaging

Do not reuse empty containers.

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Silver nitrate 7761-88-8	Not Established	-	Not Established	Not Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Silver nitrate 7761-88-8	Not Established	Not Established	Not Established	Not Established

Chemical name	California Hazardous Waste Status
Silver nitrate 7761-88-8	Toxic

14. TRANSPORT INFORMATION**DOT**Proper shipping name
UN-NoENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
3082

Hazard Class 9
Packing group III

IATA

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
UN-No 3082
Hazard Class 9
Packing group III

IMDG/IMO

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
UN-No 3082
Hazard Class 9
Packing group III

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL/NDSL Complies
EINECS/ELINCS Complies
ENCS Complies
IECSC Complies
KECL Complies
PICCS Complies
AICS Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China 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

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
Silver nitrate 7761-88-8	1.0

SARA 311/312 Hazard Categories

Acute health hazard Yes
Chronic Health Hazard Yes
Fire hazard No
Sudden release of pressure hazard No
Reactive Hazard Yes

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous

	Quantities			Substances
Silver nitrate 7761-88-8	1 lb	X	Not Established	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)

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	RQ
Silver nitrate 7761-88-8	1 lb	Not Established	RQ 1 lb final RQ RQ 0.454 kg final RQ

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals

Chemical name	California Proposition 65
Silver nitrate 7761-88-8	Not Established

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Silver nitrate 7761-88-8	X	X	X

CPSC (Consumer Product Safety Commission) - Specially Regulated Substances

Chemical name	CPSC (Consumer Product Safety Commission) - Specially Regulated Substances
Silver nitrate 7761-88-8	Add POISON to label, 16 CFR 1500.129

16. OTHER INFORMATION**NFPA**

Health hazard 1

Flammability 0

Instability 1

Physical and Chemical
Hazards N/A

Health hazard 2

Flammability 0

Stability 1



Health Hazard	2
Fire Hazard	0
Reactivity	1

Prepared by

Regulatory Affairs Department

Dec-15-2011

Jun-10-2015

Reason for revision

Update to Format New US GHS format

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet