

SAFETY DATA SHEET

Issue Date 23-Jun-2016

Revision Date 03-Mar-2017

Version 4

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1. IDENTIFICATION

Product identifier

Product Name

BUFFER SOLUTION

Other means of identification

Product Code(s)

TNT870A

Safety data sheet number

M02627

Recommended use of the chemical and restrictions on use

Recommended Use

Analytical reagent.

Uses advised against

None.

Restrictions on use

None.

Details of the supplier of the safety data sheet

Manufacturer Address

Hach Company P.O.Box 389 Loveland, CO 80539 USA (970) 669-3050

Emergency telephone number

(303) 623-5716 - 24 Hour Service (515)232-2533 - 8am - 4pm CST

2. HAZARDS IDENTIFICATION

Classification

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

Not Hazardous

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

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Hazard statements

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

Other Information

Not applicable

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable

Mixture

Percent ranges are used where confidential product information is applicable.

Chemical Name	CAS No	Percent Range	HMRIC #
Silver nitrate	7761-88-8	<0.01%	-

4. FIRST AID MEASURES

Description of first aid measures

General advice In case of accident or unwellness, seek medical advice immediately (show directions for

use or safety data sheet if possible).

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. If symptoms persist, call a physician.

Skin contact IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin

with water/shower. If symptoms persist, call a physician.

Inhalation IF INHALED: Remove person to fresh air and keep comfortable for breathing. If symptoms

persist, call a physician.

Ingestion IF SWALLOWED: Rinse Mouth. If symptoms persist, call a physician.

Self-protection of the first aider

Use personal protective equipment as required. Ensure that medical personnel are aware

of the material(s) involved and take precautions to protect themselves.

Most important symptoms and effects, both acute and delayed

Symptoms See Section 11: TOXICOLOGICAL INFORMATION.

Indication of any immediate medical attention and special treatment needed

Note to physicians 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 Caution: Use of water spray when fighting fire may be inefficient.

Flammable properties

Substance does not burn.

Specific hazards arising from the chemical

This product will not burn or explode.

Hazardous combustion products

No information available.

Protective equipment and precautions for firefighters

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

6. ACCIDENTAL RELEASE MEASURES

U.S. Notice Only persons properly qualified to respond to an emergency involving hazardous

substances may respond to a spill according to federal regulations (OSHA 29 CFR

1910.120(a)(v)) and per your company's emergency response plan and

guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations

should respond to a spill involving chemicals.

EC Notice Only persons properly qualified to respond to an emergency involving hazardous

substances should respond to a spill involving chemicals. See Section 13, Special

Instructions for disposal assistance.

WHMIS Notice Only persons properly qualified to respond to an emergency involving hazardous

substances should respond to a spill involving chemicals. See Section 13, Special

Instructions for disposal assistance.

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Do not touch or walk through spilled material. Ventilate

affected area. Use personal protective equipment as required.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later

disposal.

Methods for cleaning up Neutralize spill if necessary. Soak up with inert absorbent material. Take up mechanically,

placing in appropriate containers for disposal. Clean contaminated surface thoroughly.

Dispose of in accordance with local, state and federal regulations or laws.

Emergency Response Guide Number

Not applicable

7. HANDLING AND STORAGE

Precautions for safe handling

Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly

labeled containers.

Flammability class Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

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Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Silver nitrate	TWA: 0.01 mg/m ³	TWA: 0.01 mg/m ³	IDLH: 10 mg/m ³ Ag
<0.01%	-	(vacated) TWA: 0.01 mg/m ³	TWA: 0.01 mg/m ³ Ag

Chemical Name	Alberta OEL	British Columbia OEL	Manitoba OEL	New Brunswick OEL	New Foundland & Labrador OEL
Silver nitrate	TWA: 0.01 mg/m ³	TWA: 0.01 mg/m ³	TWA: 0.01 mg/m ³	TWA: 0.01 mg/m ³	TWA: 0.01 mg/m ³
<0.01%	-	STEL: 0.03 mg/m ³	350		

Chemical Name	Northwest Territories OEL	Nova Scotia OEL	Nunavut OEL	Ontario TWA	Prince Edward Island OEL
Silver nitrate	TWA: 0.01 mg/m ³	TWA: 0.01 mg/m ³	TWA: 0.01 mg/m ³	TWA: 0.01 mg/m ³	TWA: 0.01 mg/m ³
<0.01%	STEL: 0.03 mg/m ³		STEL: 0.03 mg/m ³		

Chemical Name Quebec OEL		Saskatchewan OEL	Yukon OEL
Silver nitrate	TWA: 0.01 mg/m ³	TWA: 0.01 mg/m ³	STEL: 0.03 mg/m ³
<0.01%	as decre som december space •	STEL: 0.03 mg/m ³	TWA: 0.01 mg/m ³

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962

(11th Cir., 1992).

Legend See section 16 for terms and abbreviations

Appropriate engineering controls

Engineering Controls Showers

Eyewash stations Ventilation systems

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 and protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or

smoke when using this product. Take off all contaminated clothing and wash it before reuse. Wash hands thoroughly after handling. Regular cleaning of equipment, work area

and clothing is recommended.

Environmental exposure controls

Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state

Liquid

Gas Under Pressure

Not classified according to GHS criteria

Appearance

aqueous solution

Color

colorless

Odor

None

Odor threshold

No data available

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Remarks • Method **Values Property** No data available Molecular weight No data available рH ~ 0 °C / 32 °F Estimation based on theoretical Melting point/freezing point calculation Estimation based on theoretical ~ 100 °C / 212 °F Boiling point / boiling range calculation 1 (water = 1) Estimation based on theoretical **Evaporation rate** calculation Estimation based on theoretical 23.777 mm Hg / 3.17 kPa at 25 °C / 77 °F Vapor pressure calculation 0.03 (air = 1) Vapor density (air = 1) No data available Specific gravity (water = 1 / air = 1) Partition Coefficient (n-octanol/water) Not applicable Not applicable

Soil Organic Carbon-Water Partition

Coefficient

Autoignition temperature

Decomposition temperature

Dynamic viscosity Kinematic viscosity No data available

No data available

No data available

No data available

Solubility(ies)

Water solubility

Water solubility classification	Water solubility_	Water Solubility Temperature
Soluble	> 1000 mg/L	25 °C / 77 °F

Solubility in other solvents

Chemical Name	Solubility classification	<u>Solubility</u>	Solubility Temperature_
Acid	Violent reaction will occur	No data available	No information available

Other Information

Not classified as corrosive to metal according to GHS criteria **Metal Corrosivity**

No data available **Steel Corrosion Rate**

No data available **Aluminum Corrosion Rate**

Not applicable **Bulk density**

Not classified according to GHS criteria. **Explosive properties**

No data available **Explosion data**

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Upper explosion limit

No data available

Lower explosion limit

No data available

Flammable properties

Not classified as flammable according to GHS criteria.

Flammability Limit in Air

Upper flammability limit:

No data available

Lower flammability limit:

No data available

Flash point

No data available

Method

No information available

Oxidizing properties

Not classified according to GHS criteria.

Reactivity propeties

Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria.

10. STABILITY AND REACTIVITY

Reactivity propeties

Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria

Chemical stability

Stable under recommended storage conditions.

Special dangers of the product

None reported

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Extremes of temperature and direct sunlight. Incompatible materials.

Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

Hazardous Decomposition Products

None known based on information supplied.

Explosive properties

Not classified according to GHS criteria.

Upper explosion limit

No data available

Lower explosion limit

No data available

Autoignition temperature

No data available

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Sensitivity to Static Discharge

None reported

Sensitivity to Mechanical Impact

None reported

11. TOXICOLOGICAL INFORMATION

NIOSH (RTECS) Number

None reported

Information on Likely Routes of Exposure

Product Information	Product does not present an acute toxicity hazard based on
	known or supplied information.
Inhalation	No known effect based on information supplied.
Eve contact	No known effect based on information supplied.
Skin contact	No known effect based on information supplied.
Ingestion	No known effect based on information supplied.
Aggravated Medical Conditions	None known.
Toxicologically synergistic products	None known.
Toxicokinetics, metabolism and distribution	See ingredients information below.

Chemical Name	Toxicokinetics, metabolism and distribution
Silver nitrate	Siver is chelated and removed from a body by a very slow enzymatic procces.
(<0.01%)	
CAS#: 7761-88-8	

Product Acute Toxicity Data

Oral Exposure Route No data available

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Ingredient Acute Toxicity Data

Oral Exposure Route If available, see data below

Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Silver nitrate (<0.01%) CAS#: 7761-88-8	Rat LD ₅₀	1173 mg/kg	None reported	Behavioral Tetany Lungs, Thorax, or Respiration Cyanosis Gastrointestinal Diarrhea	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Silver nitrate (<0.01%) CAS#: 7761-88-8	Mouse LD50	50 mg/kg	None reported	None reported	RTECS (Registry of Toxic Effects of Chemical Substances)

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Inhalation (Dust/Mist) Exposure Route

No data available

Inhalation (Vapor) Exposure Route

If available, see data below

Inhalation (Gas) Exposure Route

No data available

Product Skin Corrosion/Irritation Data

No data available.

Ingredient Skin Corrosion/Irritation Data

If available, see data below

Chemical Name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Silver nitrate (<0.01%) CAS#: 7761-88-8	None reported	Human	None reported	None reported	Corrosive to skin	NIOSH (National Institute for Occupational Safety and Health)

Product Serious Eye Damage/Eye Irritation Data

No data available.

Ingredient Eye Damage/Eye Irritation Data

If available, see data below

Chemical Name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Silver nitrate (<0.01%) CAS#: 7761-88-8	None reported	Human	None reported	None reported	Corrosive to eyes	NIOSH (National Institute for Occupational Safety and Health)
Chemical Name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Silver nitrate (<0.01%) CAS#: 7761-88-8	Standard Draize Test	Rabbit	1.0 mg	None reported	Corrosive to eyes	RTECS (Registry of Toxic Effects of Chemical Substances)

Sensitization Information

Product Sensitization Data

Skin Sensitization Exposure Route

No data available.

Respiratory Sensitization Exposure Route

No data available.

Ingredient Sensitization Data

Skin Sensitization Exposure Route

If available, see data below.

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Chemical Name Test method		Species	Results	Key literature references and		
				sources for data		
Silver nitrate (<0.01%) CAS#: 7761-88-8	Patch test	Human	Confirmed to be a skin sensitizer	HSDB (Hazardous Substances Data Bank)		

Respiratory Sensitization Exposure Route

No data available.

Chronic Toxicity Information

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Product Repeat Dose Toxicity Data

Oral Exposure Route No data available.

Dermal Exposure Route No data available.

Inhalation (Dust/Mist) Exposure Route No data available.

Inhalation (Vapor) Exposure Route No data available.

Inhalation (Gas) Exposure Route No data available.

Ingredient Repeat Dose Toxicity Data

Oral Exposure Route If available

Oral Exposure Route	posure Route If available, see data below						
Chemical Name	Endpoint type	Reported dose	1 · · · · · · · · · · · · · · · · · · ·		Key literature references and sources for data		
Silver nitrate (<0.01%) CAS#: 7761-88-8	Rat TD⊾₀	0.7 mg/kg	14 days	Kidney, Ureter, or Bladder Interstitial nephritis Liver Hepatitis (hepatocellular necrosis), diffuse Nutritional and Gross Metabolic Weight loss or decreased weight gain	RTECS (Registry of Toxic Effects of Chemical Substances)		
Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data		
Silver nitrate (<0.01%) CAS#: 7761-88-8	Rat TDLo	28560 mg/kg	17 weeks	Cardiac Liver Other changes Kidney, Ureter, or Bladder Changes in tubules (including acute renal failure, acute tubular necrosis)	RTECS (Registry of Toxic Effects of Chemical Substances)		

Dermal Exposure Route

No data available

Inhalation (Dust/Mist) Exposure Route If available, see data below

Chemical Name	Endpoint	Reported	Exposure	Toxicological effects	Key literature references and
	type	dose	time		sources for data
Silver nitrate	Rat	0.012 mg/L	119 days	Blood	RTECS (Registry of Toxic
(<0.01%)	TCL₀			Changes in erythrocyte (RBC)	Effects of Chemical
CAS#: 7761-88-8	.			count	Substances)
				Cardiac	i i
				Pulse rate	
				Kidney, Ureter, or Bladder	
		ļ		Urine volume increased	

Inhalation (Vapor) Exposure Route

No data available

Inhalation (Gas) Exposure Route

No data available

Chemical Name	CAS No	ACGIH	IARC	NTP	OSHA
Silver nitrate	7761-88-8	•	Group 2A	•	X

<u>Legend</u>

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ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Does not apply
NTP (National Toxicology Program)	Does not apply
OSHA (Occupational Safety and Health Administration of the US Department of	Does not apply
Labor)	

Product Carcinogenicity Data

No data available

Oral Exposure Route

No data available

Dermal Exposure Route

No data available

Inhalation (Dust/Mist) Exposure Route

No data available

Inhalation (Vapor) Exposure Route

No data available

Inhalation (Gas) Exposure Route

No data available

Ingredient Carcinogenicity Data

Oral Exposure Route

No data available

Dermal Exposure Route

No data available

Inhalation (Dust/Mist) Exposure Route

No data available

Inhalation (Vapor) Exposure Route

No data available

Inhalation (Gas) Exposure Route

No data available

Product Germ Cell Mutagenicity invitro Data

No data available.

Ingredient Germ Cell Mutagenicity invitro Data

If available, see data below

Chemical Name	Test	Cell Strain	Reported dose	Exposure time		Key literature references and sources for data
Silver nitrate (<0.01%) CAS#: 7761-88-8	DNA inhibition	Human lymphocyte	0.076 mmol/L	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)

Oral Exposure Route No data available

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Ingredient Germ Cell Mutagenicity invivo Data

Oral Exposure Route No data available

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

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Inhalation (Vapor) Exposure Route

No data available

Inhalation (Gas) Exposure Route

No data available

Oral Exposure Route

No data available

Dermal Exposure Route

No data available

Inhalation (Dust/Mist) Exposure Route

No data available

Inhalation (Vapor) Exposure Route

No data available

Inhalation (Gas) Exposure Route

No data available

Ingredient Reproductive Toxicity Data

Oral Exposure Route

If available, see data below

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Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Silver nitrate (<0.01%) CAS#: 7761-88-8	Rat TD⊾₀	28560 mg/kg	17 weeks	Paternal Effects Spermatogenesis (including genetic material, sperm morphology, motility, and count)	RTECS (Registry of Toxic Effects of Chemical Substances)

Dermal Exposure Route

No data available

Inhalation (Dust/Mist) Exposure Route

No data available

Inhalation (Vapor) Exposure Route

No data available

Inhalation (Gas) Exposure Route

No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Based on the classification principles, not classified as hazardous

to the environment.

Product Ecological Data

Aquatic toxicity

Fish

No data available

Crustacea

No data available

Algae

No data available

Terrestrial toxicity

Soil

No data available

Vertebrates

No data available

Invertebrates

No data available

Ingredient Ecological Data

Aquatic toxicity

Fish	If available, see ingredient data below

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	Chemical Name	Exposure	Species	Endpoint	Reported	Key literature references and	
		time		type	dose	sources for data	

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Silver nitrate (<0.01%) CAS#: 7761-88-8	96 hours	Oncorhynchus mykiss	LC50	0.006 mg/L	PEEN (Pan European Ecological Network)
Chemical Name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Silver nitrate (<0.01%) CAS#: 7761-88-8	96 hours	None reported	LC50	0.019 mg/L	PEEN (Pan European Ecological Network)

If available, see ingredient data below <u>Crustacea</u> Key literature references and **Endpoint** Reported **Species Chemical Name Exposure** sources for data dose time type 0.00156 mg/L PEEN (Pan European Ecological Daphnia magna LC50 Silver nitrate 48 Hours Network) (<0.01%) CAS#: 7761-88-8 Key literature references and Reported **Endpoint** Exposure **Species Chemical Name** sources for data dose type time PEEN (Pan European Ecological EC₅₀ 0.0029 mg/L Daphnia magna Silver nitrate 48 hours Network) (<0.01%) CAS#: 7761-88-8

Algae	If available, see ingredient data below						
Chemical Name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data		
Silver nitrate (<0.01%) CAS#: 7761-88-8	96 hours	Scenedesmus dimorphus	EC ₅₀	0.0093 mg/L	PEEN (Pan European Ecological Network)		

Terrestrial toxicity

Soil No data available

Vertebrates No data available

Invertebrates No data available

Other Information

Canadian Environmental Protection Act (CEPA) - Domestic Substances List (DSL): Environmentally Hazardous Substances Categorizations							
Chemical Name	Category	Persistent	Bioaccumulation	Inherently Toxic to Aquatic Organisms			
Silver nitrate (<0.01%) CAS#: 7761-88-8	Inorganics	Yes	No	Yes			

Persistence and degradability

None known.

Product Biodegradability Data

If available, see ingredient data below.

Ingredient Biodegradability Data

Test data reported below

Bioaccumulation

None known.

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Product Bioaccumulation Data

No data available.

Ingredient Bioaccumulation Data

No data available

Additional information

Product Information

Partition Coefficient (n-octanol/water)

Not applicable

Ingredient Information

Mobility

Mobility in soil: High mobility. If available, see ingredient data below.

Product Information

Soil Organic Carbon-Water Partition Coefficient

Not applicable

Ingredient Information

Additional information

Water solubility

Product Information

Water solubility classification	Water solubility	Water Solubility Temperature
Soluble	> 1000 mg/L	25 °C / 77 °F

Ingredient Information

Chemical Name	Water solubility classification	Water solubility	Water solubility temperature °C	4.5
Silver nitrate CAS#: 7761-88-8	Slightly soluble	1.22 mg/L	0 °C	32 °F

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

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

Contaminated packaging

Working in a well-ventilated area. Rinse three times with an appropriate solvent. Collect rinsate and dispose of according to local, state, or federal regulations. Dispose of empty container as normal trash. In the US, rinsate from empty containers is classified as hazardous waste and should be disposed of at an E.P.A. approved facility. Rinsate from empty containers may contain sufficient product to require disposal as hazardous waste in countries other than the US. Improper disposal or reuse of this container may be dangerous and illegal. Disposal should be in accordance with applicable regional, national, and local

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laws and regulations.

Special instructions for disposal Dispose of material in an E.P.A. approved hazardous waste facility.

14. TRANSPORT INFORMATION

U.S. DOT Not regulated

TDG Not regulated

IATA Not regulated

IMDG Not regulated

Note: No special precautions necessary.

Additional information

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies.

If the item is part of a reagent set or kit the classification would change to the following:

UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.

If the item is not regulated, the Chemical Kit classification does not apply.

15. REGULATORY INFORMATION

National Inventories

TSCA Complies DSL/NDSL Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

International Inventories

Complies **EINECS/ELINCS** Complies **ENCS** Complies **IECSC** Complies KECL Complies **PICCS** Complies TCSI Complies AICS Complies **NZIoC**

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

TCSI - Taiwan Chemical Substances Inventory

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

US Federal Regulations

<u>SARA 313</u>

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

	CARA 242 Threshold Values 9/	
Chemical Name	SARA 313 - Threshold Values %	

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	1.0	
No		
	No	No No No No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Silver nitrate	1 lb	X	-	X
7761-88-8				

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Silver nitrate	1 lb	N -	RQ 1 lb final RQ
7761-88-8	2.55		RQ 0.454 kg final RQ

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

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

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

Special Comments

None

Additional information

Global Automotive Declarable Substance List (GADSL)

Chemical Name	Global Automotive Declarable Substance List Classifications	Global Automotive Declarable Substance List Thersholds
Silver nitrate 7761-88-8	Declarable Substance (LR)	0.0 %

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NFPA and HMIS Classifications

NFPA	Health hazards - 0	Flammability - 0	Instability - 0	Physical and Chemical Properties -
HMIS	Health hazards - 0	Flammability - 0	Physical Hazards - 0	Personal protection - X - See section 8 for more information

Key or legend to abbreviations and acronyms used in the safety data sheet

NIOSH IDLH

Immediately Dangerous to Life or Health

ACGIH

ACGIH (American Conference of Governmental Industrial Hygienists)

NDF no da

Listed

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA

TWA (time-weighted average)

STEL

STEL (Short Term Exposure Limit)

MAC

Maximum Allowable Concentration

Ceiling

Ceiling Limit Value

X

Vacated

These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state

regulations.

SKN*

Skin designation

SKN+

Skin sensitization

RSP+

Respiratory sensitization

** R Hazard Designation Reproductive toxicant

C M Carcinogen mutagen

Prepared By

Hach Product Compliance Department

Issue Date

23-Jun-2016

Revision Date

03-Mar-2017

Revision Note

None

Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

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End of Safety Data Sheet