

IN CASE OF EMERGENCY, CONTACT: CHEMTREC (24HR) 800-424-9300



Manufacturer: Poly Scientific R&D Corp
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Hazardous Materials Identification System

Health.....:
Flammability.....:
Reactivity.....:
***PPE**.....:

*See Section 8

Section 1. Chemical Product and Company Identification

Item Number: s2014-1
Common Name: Protargol Dry Pack
Chemical Name(s): Silver Proteinate
Chemical Family: Enzyme
Chemical Formula: Mixture

Section 2. Composition Information

Exposure Limits(A blank value indicates no information available)

Component	CAS#	PEL(mg/m3)	STEL(mg/m3)	CEIL(mg/m3)
Silver Proteinate	9008-42-8		0.01	

Section 3. Hazards Identification**Potential Acute Health Effects:** Hazardous in case of inhalation, eye contact, skin contact, ingestion**Potential Chronic Health Effects:** N/A**Section 4. First Aid Measures****Eye Contact:** Check for and remove contact lenses. Wash with large amounts of water for 15 minutes. Seek medical attention.**Skin Contact:** Remove contaminated clothing and shoes. Wash the affected area with large with soap and water. Seek medical attention**Ingestion:** Give two glasses of water to a conscious victim. Do not induce vomiting. Seek medical attention**Inhalation:** Move person to fresh air. If necessary give CPR; warning this could pose a risk of exposure to the rescue breather. Seek medical attention**Section 5. Fire and Explosion Data****Flash Point (F) TCC:** N/A**Lower Flammability Limit (%):** N/A**Upper Flammability Limit (%):** N/A**Extinguishing Media:** Use extinguishing media appropriate for surrounding fire**Special Fire and Explosion Remarks:** N/A**Section 6. Accidental Release Measures****Spill Cleanup and Disposal Special:** Pick up and containerize for proper disposal**Spill Cleanup:** Take up spills with absorbant material and containerize for proper disposal**Section 7. Handling and Storage****Storage and Handling Special:** N/A**Storage and handling:** Keep container tightly closed. Store in a cool, dry area and protect from physical damage**Section 8. Exposure Controls/Personal Protection****Personal Protective Equipment:** Face Shield, Gloves, Synthetic Apron

This information is provided as a guide but proper PPE can only be determined by the end user and their situation.

Engineering Controls: Provide local exhaust ventilation to keep the airborne concentrations of vapors below their respective threshold limit values. Ensure that eyewash stations and safety showers are local to the work-station.**Section 9. Physical and Chemical Properties****Note:** N/A**Appearance**.....: clear, colorless**Odor**.....: N/A**pH**.....: N/A**Specific Gravity (@20C)**.....: N/A**Vapor Pressure (mm Hg)**.....: N/A**Vapor Density (Air=1)**.....: N/A**Volatile Percent**.....: N/A**Water Soluable?**.....: Yes**Section 10. Stability and reactivity****Special Remarks on Stability:** Stable**Special Remarks on Reactivity:** N/A**Water Reactive:** No**Section 11. Toxicological Information****Routes of Entry:** Inhalation, Skin Absorption, Ingestion**Animal Toxicity:** No toxicity data available**Human Toxic Effects:** Target Organs: N/A

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Section 12. Ecological Information

Ecological Information: N/A

Section 13. Disposal Considerations

Waste Disposal: Dispose of in accordance with local, state and federal laws.

Section 14. Transport Information

DOT Identification: Non Hazardous

Section 15. Regulatory Information

State Regulations: New York release reporting list: N/A

Sara Section 311 Reporting

Component	CAS#	Acute	Chronic	Fire	Pressure	Reactive	SARA302	SARA313	CERCLA	RCRA
Silver Proteinate	9008-42-8	No	No	No	No	No	No	No	No	No

Section 16. Other Information

Review Date: 6/27/2013

Reviewed by: tsc

MSDS Group Id: 170

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Hazardous Materials Identification System

Health.....: 3
 Flammability.....: 0
 Reactivity.....: 0
 *PPE.....: g

*See Section 8

Section 1. Chemical Product and Company Identification

Item Number: s203-1
Common Name: Gold Chloride 1% Aqueous
Chemical Name(s): Gold Chloride
Chemical Family: Metal Halide
Chemical Formula: Mixture

Section 2. Composition Information

Exposure Limits(A blank value indicates no information available)

Component	CAS#	PEL(mg/m3)	STEL(mg/m3)	CEIL(mg/m3)
Gold Chloride	16961-25-4			

Section 3. Hazards Identification

Potential Acute Health Effects: Hazardous in case of inhalation, eye contact, skin contact, ingestion

Potential Chronic Health Effects: N/A

Section 4. First Aid Measures

Eye Contact: Check for and remove contact lenses. Wash with large amounts of water for 15 minutes. Seek medical attention.

Skin Contact: Remove contaminated clothing and shoes. Wash the affected area with large with soap and water. Seek medical attention

Ingestion: Give two glasses of water to a conscious victim. Do not induce vomiting. Seek medical attention

Inhalation: Move person to fresh air. If necessary give CPR; warning this could pose a risk of exposure to the rescue breather. Seek medical attention

Section 5. Fire and Explosion Data

Flash Point (F) TCC: N/A

Lower Flammability Limit (%): N/A

Upper Flammability Limit (%): N/A

Extinguishing Media: Water Spray, Dry Chemical, Alcoholic Foam, Carbon Dioxide,

Special Fire and Explosion Remarks: N/A

Section 6. Accidental Release Measures

Spill Cleanup and Disposal Special: Pick up with absorbent material.

Spill Cleanup: Take up spills with absorbant material and containerize for proper disposal

Section 7. Handling and Storage

Storage and Handling Special: Refrigerate

Storage and handling: Keep container tightly closed. Store in a cool, dry area and protect from physical damage

Section 8. Exposure Controls/Personal Protection

Personal Protective Equipment: Safety Glasses, Gloves, Vapor Respirator

This information is provided as a guide but proper PPE can only be determined by the end user and their situation.

Engineering Controls: Provide local exhaust ventilation to keep the airborne concentrations of vapors below their respective threshold limit values. Ensure that eyewash stations and safety showers are local to the work-station.

Section 9. Physical and Chemical Properties

Note: N/A

Appearance.....: clear gold

Odor.....: N/A

pH.....: N/A

Specific Gravity (@20C).....: N/A

Vapor Pressure (mm Hg).....: N/A

Vapor Density (Air=1).....: N

Volatile Percent.....: N/A

Water Soluable?.....: Yes

Section 10. Stability and reactivity

Special Remarks on Stability: Stable

Special Remarks on Reactivity: N/A

Water Reactive: No

Section 11. Toxicological Information

Routes of Entry: Inhalation, Ingestion, Skin Absorption

Animal Toxicity: Intravenous (LDLo) 75 mg/kg (Mouse); Subcutaneous (TDLo) 75 22106 ug/kg (Mouse); Intratesticular TDLo) 5527 ug/kg (Rat)

Human Toxic Effects: Target Organs: None

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Section 12. Ecological Information

Ecological Information: N/A

Section 13. Disposal Considerations

Waste Disposal: Dispose of in accordance with local, state and federal laws.

Section 14. Transport Information

DOT Identification: Non Hazardous

Section 15. Regulatory Information

State Regulations: New York Release reporting list: N/A

Sara Section 311 Reporting

Component	CAS#	Acute	Chronic	Fire	Pressure	Reactive	SARA302	SARA313	CERCLA	RCRA
Gold Chloride	16961-25-4	No	No	No	No	No	No	No	No	No

Section 16. Other Information

Review Date: 6/3/2013

Reviewed by: tsc

MSDS Group Id: 65

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Hazardous Materials Identification System

Health.....: 1
Flammability.....: 0
Reactivity.....: 0
***PPE**.....: c

*See Section 8

Section 1. Chemical Product and Company Identification

Item Number: s2012-1
Common Name: Oxalic Acid 2% Aqueous
Chemical Name(s): Oxalic Acid
Chemical Family: Carboxylic Acid, Aliphatic
Chemical Formula: Mixture

Section 2. Composition Information**Exposure Limits(A blank value indicates no information available)**

Component	CAS#	PEL(mg/m3)	STEL(mg/m3)	CEIL(mg/m3)
Oxalic Acid	6153-56-6	2.00	1.00	

Section 3. Hazards Identification

Potential Acute Health Effects: Hazardous in case of inhalation, eye contact, skin contact, ingestion

Potential Chronic Health Effects: Mutation references cited, reproductive effects

Section 4. First Aid Measures

Eye Contact: Check for and remove contact lenses. Wash with large amounts of water for 15 minutes. Seek medical attention.

Skin Contact: Remove contaminated clothing and shoes. Wash the affected area with large with soap and water. Seek medical attention

Ingestion: Give two glasses of water to a conscious victim. Do not induce vomiting. Seek medical attention

Inhalation: Move person to fresh air. If necessary give CPR; warning this could pose a risk of exposure to the rescue breather. Seek medical attention

Section 5. Fire and Explosion Data

Flash Point (F) TCC: N/A

Lower Flammability Limit (%): N/A

Upper Flammability Limit (%): N/A

Extinguishing Media: Dry Chemical, Carbon Dioxide, Water Spray, Alcoholic Foam

Special Fire and Explosion Remarks: N/A

Section 6. Accidental Release Measures

Spill Cleanup and Disposal Special: Pick up with absorbent vermiculite

Spill Cleanup: Take up spills with absorbant material and containerize for proper disposal

Section 7. Handling and Storage

Storage and Handling Special: N/A

Storage and handling: Keep container tightly closed. Store in a cool, dry area and protect from physical damage

Section 8. Exposure Controls/Personal Protection

Personal Protective Equipment: Safety Glasses, Gloves, Synthetic Apron

This information is provided as a guide but proper PPE can only be determined by the end user and their situation.

Engineering Controls: Provide local exhaust ventilation to keep the airborne concentrations of vapors below their respective threshold limit values. Ensure that eyewash stations and safety showers are local to the work-station.

Section 9. Physical and Chemical Properties

Note: N/A

Appearance.....: clear colorless

Odor.....: N/A

pH.....: N/A

Specific Gravity (@20C).....: N/A

Vapor Pressure (mm Hg).....: N/A

Vapor Density (Air=1).....: N/A

Volatile Percent.....: N/A

Water Soluable?.....: Yes

Section 10. Stability and reactivity

Special Remarks on Stability: Stable

Special Remarks on Reactivity: N/A

Water Reactive: No

Section 11. Toxicological Information

Routes of Entry: Inhalation, Skin Absorption, Ingestion

Animal Toxicity: Skin (Rabbit) 250 ug/24hrs Mild Irritation; Eye (Rabbit) 250 ug/24hrs Severe Irritation; Eye (Rabbit) rinsed 100 mg/4 seconds S

Human Toxic Effects: Target Organs:

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Section 12. Ecological Information

Ecological Information: N/A

Section 13. Disposal Considerations

Waste Disposal: Dispose of in accordance with local, state and federal laws.

Section 14. Transport Information

DOT Identification: Non Hazardous

Section 15. Regulatory Information

State Regulations: New York release reporting list: N/A

Sara Section 311 Reporting

Component	CAS#	Acute	Chronic	Fire	Pressure	Reactive	SARA302	SARA313	CERCLA	RCRA
Oxalic Acid	6153-56-6	No	No	No	No	No	No	No	No	No

Section 16. Other Information

Review Date: 6/27/2013

Reviewed by: tsc

MSDS Group Id: 168

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Hazardous Materials Identification System

Health.....: 2
Flammability.....: 0
Reactivity.....: 0
***PPE**.....: c

*See Section 8

Section 1. Chemical Product and Company Identification

Item Number: s1895-1
Common Name: Sodium Thiosulfate 5% Aqueous
Chemical Name(s): Sodium Thiosulfate Pentahydrate
Chemical Family: Inorganic Salt
Chemical Formula: Mixture

Section 2. Composition Information

Exposure Limits(A blank value indicates no information available)

Component	CAS#	PEL(mg/m3)	STEL(mg/m3)	CEIL(mg/m3)
Sodium Thiosulfate Pentahydrate	10102-17-7			

Section 3. Hazards Identification**Potential Acute Health Effects:** Hazardous in case of inhalation, eye contact, skin contact, ingestion**Potential Chronic Health Effects:** N/A**Section 4. First Aid Measures****Eye Contact:** Check for and remove contact lenses. Wash with large amounts of water for 15 minutes. Seek medical attention.**Skin Contact:** Remove contaminated clothing and shoes. Wash the affected area with large amount of water. Seek medical attention.**Ingestion:** Give two glasses of water to a conscious victim. Do not induce vomiting. Seek medical attention.**Inhalation:** Move person to fresh air. If necessary give CPR; warning this could pose a risk of exposure to the rescue breather. Seek medical attention.**Section 5. Fire and Explosion Data****Flash Point (F) TCC:** N/A**Lower Flammability Limit (%):** N/A**Upper Flammability Limit (%):** N/A**Extinguishing Media:** Dry Chemical, Carbon Dioxide, Water Spray, Alcoholic Foam**Special Fire and Explosion Remarks:** N/A**Section 6. Accidental Release Measures****Spill Cleanup and Disposal Special:** Pick up spill with absorbent vermiculite**Spill Cleanup:** Take up spills with absorbent material and containerize for proper disposal**Section 7. Handling and Storage****Storage and Handling Special:** N/A**Storage and handling:** Keep container tightly closed. Store in a cool, dry area and protect from physical damage**Section 8. Exposure Controls/Personal Protection****Personal Protective Equipment:** Safety Glasses, Gloves, Synthetic Apron

This information is provided as a guide but proper PPE can only be determined by the end user and their situation.

Engineering Controls: Provide local exhaust ventilation to keep the airborne concentrations of vapors below their respective threshold limit values. Ensure that eyewash stations and safety showers are local to the work-station.**Section 9. Physical and Chemical Properties****Note:** N/A**Appearance**.....: clear, colorless**Odor**.....: N/A**pH**.....: N/A**Specific Gravity (@20C)**.....: N/A**Vapor Pressure (mm Hg)**.....: N/A**Vapor Density (Air=1)**.....: N/A**Volatile Percent**.....: N/A**Water Soluble?**.....: Yes**Section 10. Stability and reactivity****Special Remarks on Stability:** Stable**Special Remarks on Reactivity:** N/A**Water Reactive:** No**Section 11. Toxicological Information****Routes of Entry:** Inhalation, Skin Absorption, Ingestion**Animal Toxicity:** Acute Oral (LD50) 2700 mg/kg (Mouse); Acute Oral (LDL0) 300 mg/kg/7 days (Human); I.P (LD50) 5600 mg/kg (Mouse); I.V. (l)**Human Toxic Effects:** Target Organs: None

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Section 12. Ecological Information

Ecological Information: N/A

Section 13. Disposal Considerations

Waste Disposal: Dispose of in accordance with local, state and federal laws.

Section 14. Transport Information

DOT Identification: Non Hazardous

Section 15. Regulatory Information

State Regulations: New York release reporting list: N/A

Sara Section 311 Reporting

Component	CAS#	Acute	Chronic	Fire	Pressure	Reactive	SARA302	SARA313	CERCLA	RCRA
Sodium Disulfate Pentahydrate	10102-17-7	No	No	No	No	No	No	No	No	No

Section 16. Other Information

Review Date: 6/28/2013

Reviewed by: tsc

MSDS Group Id: 112

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Hazardous Materials Identification System

Health.....: 1
Flammability.....: 0
Reactivity.....: 0
***PPE**.....: C

*See Section 8

Section 1. Chemical Product and Company Identification

Item Number: s117-1
Common Name: Aniline Blue Bodian Method
Chemical Name(s): Deionized Water
Chemical Family: N/A
Chemical Formula: Mixture

Section 2. Composition Information

Exposure Limits(A blank value indicates no information available)

Component	CAS#	PEL(mg/m3)	STEL(mg/m3)	CEIL(mg/m3)
Deionized Water	7732-18-5			

Section 3. Hazards Identification

Potential Acute Health Effects: Hazardous in case of inhalation, eye contact, skin contact and ingestion

Potential Chronic Health Effects: N/A

Section 4. First Aid Measures

Eye Contact: Check for and remove contact lenses. Wash with large amounts of water for 15 minutes. Seek medical attention.

Skin Contact: Remove contaminated clothing and shoes. Wash the affected area with large with soap and water. Seek medical attention

Ingestion: Give two glasses of water to a conscious victim. Do not induce vomiting. Seek medical attention

Inhalation: Move person to fresh air. If necessary give CPR; warning this could pose a risk of exposure to the rescue breather. Seek medical attention

Section 5. Fire and Explosion Data

Flash Point (F) TCC: NA

Lower Flammability Limit (%): NA

Upper Flammability Limit (%): NA

Extinguishing Media: Water Spray, Dry Chemical, or Carbon Dioxide

Special Fire and Explosion Remarks: NA

Section 6. Accidental Release Measures

Spill Cleanup and Disposal Special: Pick up with absorbent material

Spill Cleanup: Take up spills with absorbant material and containerize for proper disposal

Section 7. Handling and Storage

Storage and Handling Special: Refrigerate

Storage and handling: Keep container tightly closed. Store in a cool, dry area and protect from physical damage

Section 8. Exposure Controls/Personal Protection

Personal Protective Equipment: N/A

This information is provided as a guide but proper PPE can only be determined by the end user and their situation.

Engineering Controls: Provide local exhaust ventilation to keep the airborne concentrations of vapors below their respective threshold limit values. Ensure that eyewash stations and safety showers are local to the work-station.

Section 9. Physical and Chemical Properties

Note: N/A

Appearance.....: clear blue

Odor.....: None

pH.....: N/A

Specific Gravity (@20C).....: 1.0

Vapor Pressure (mm Hg).....: 760

Vapor Density (Air=1).....: N/A

Volatile Percent.....: N/A

Water Soluable?.....: Yes

Section 10. Stability and reactivity

Special Remarks on Stability: Stable

Special Remarks on Reactivity: NA

Water Reactive: No

Section 11. Toxicological Information

Routes of Entry: Ingestion

Animal Toxicity: Acute Oral (TDLo) 368 mg/kg (Rabbit); Intravenous (LDLo) 13 gm/kg (Rabbit); Acute Oral (LDLo) 629 gm/kg (Dog)

Human Toxic Effects: Target Organs: N/A

IN CASE OF EMERGENCY, CONTACT: CHEMTREC (24HR) 800-424-9300

Section 12. Ecological Information

Ecological Information: N/A

Section 13. Disposal Considerations

Waste Disposal: Dispose of in accordance with local, state and federal laws.

Section 14. Transport Information

DOT Identification: Non Hazardous

Section 15. Regulatory Information

State Regulations: New York release reporting list: N/A

Sara Section 311 Reporting

Component	CAS#	Acute	Chronic	Fire	Pressure	Reactive	SARA302	SARA313	CERCLA	RCRA
Deionized Water	7732-18-5	No	No	No	No	No	No	No	No	No

Section 16. Other Information

Review Date: 5/29/2013

Reviewed by: tsc

MSDS Group Id: 2

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