VitroVivo Biotech
Make Tissues, Cells, Genes and Molecules Visible

MATERAL SAFETY DATA SHEET (MSDS)

**Kit Name: Fontana-Masson Stain Kit**
**SKU #: VB-3020**

**Revision Date: 01-16-2017**

**Composition:**

| | |
|---|---|
| VB-3020 -1 | Silver Nitrate Solution |
| VB-3020 -2 | Concentrated Ammonium Hydroxide |
| VB-3020 -3 | Gold Chloride Solution |
| VB-3020-4 | Sodium Thiosulfate Solution |
| VB-3020-5 | Nuclear-Fast Red Solution |

## VB 3020-1 Silver Nitrate Solution MSDS

### 1. Identification of the Substance/Mixture and Company

**Identification of the substance or mixture**

| | |
|---|---|
| **Product Name** | Silver Nitrate Solution |
| **Product number** | VB-3020-1 |
| **Product Description** | Kit Component |

**Manufacturer/Supplier**

VitroVivo Biotech, LLC. 9605 Medical Center Dr. Suite 315, Rockville, MD 20850
Phone: 301-500-0499 Toll free: 1-800-260-9817 Fax: 844-248-6208

## 2. Composition/information on ingredients

**Composition:**

| Name | CAS # |
|---|---|
| Silver nitrate | 7761-8 |
| Water | 7732-18 |

**Toxicological Data on Ingredients:**
Silver nitrate: ORAL (LD50): Acute: 1173 mg/kg [Rat]. 50 mg/kg [Mouse].

## 3. Hazards Identification

**Potential Acute Health Effects:**
Hazardous in case of skin contact (irritant), of ingestion. Slightly hazardous in case of skin contact (permeator), of eye contact (irritant), of inhalation. Non-corrosive for skin. Non-sensitizer for skin. Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath.

**Potential Chronic Health Effects:**
Non-corrosive for skin. Non-irritant for skin. Non-sensitizer for skin. Non-permeator by skin. Non-irritating to the eyes. Non-hazardous in case of ingestion. Non-hazardous in case of inhalation. CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to lungs, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

## 4. First Aid Measures

**Eye Contact:**
Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention..

**Skin Contact:**
After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention.

**Serious Skin Contact:**
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

**Inhalation:**
Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

**Serious Inhalation:**
Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

**Ingestion:**
Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

**Serious Ingestion:** Not available.

## 5. Fire and Explosion Data

**Flammability of the Product:** Non-flammable.

**Auto-Ignition Temperature:** N/A

**Flash Points:** N/A.

**Flammable Limits:** N/A

**Products of Combustion:** N/A

**Fire Hazards in Presence of Various Substances:** N/A

**Explosion Hazards in Presence of Various Substances:**
Risks of explosion of the product in presence of mechanical impact: N/A
Risks of explosion of the product in presence of static discharge: N/A

**Fire Fighting Media and Instructions:** N/A.

**Special Remarks on Fire Hazards:** N/A

**Special Remarks on Explosion Hazards:** N/A

## 6. Accidental Release Measures

**Small Spill:**
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

**Large Spill:**
Corrosive liquid. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, p. 3 basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

## 7. Handling and Storage

**Precautions:**
Keep container dry. Do not ingest. Do not breathe gas/fumes/ vapour/spray. Avoid contact with skin Never add water to this product Wear suitable protective clothing If ingested, seek medical advice immediately and show the container or the label.

**Storage**:

Corrosive materials should be stored in a separate safety storage cabinet or room.

## 8. Exposure Controls / Personal Protection

**Engineering Controls:**
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protection:** Face shield. Full suit. Gloves. Boots

**Personal Protection in Case of a Large Spill:**
Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:**
Silver nitrate TWA: 0.01 (mg/m3) from ACGIH [1995] Consult local authorities for acceptable exposure limits.

## 9. Physical and Chemical Properties

| | |
|---|---|
| **Physical State** | Liquid |
| **Odor** | N/A |
| **Test** | N/A |
| **pH (1% soultion/water)** | Neutral |
| **Melting Point** | N/A |
| **Boiling Point** | The lowest known value is 100°C (212°F) (Water). |
| **Specific Gravity:** | Weighted average: 1.08 (Water = 1) |
| **Vapor Pressure** (Water) | The highest known value is 17.535 mm of Hg (@ 20°C) |
| **Vapor Density** (Water) | The highest known value is 0.62 (Air = 1) |
| **Volatility:** | N/A |
| **Odor Threshold:** | N/A |
| **Water/Oil Dist. Coeff.:** | N/A |
| **Ionicity (in Water):** | N/A |
| **Dispersion Properties:** | See solubility in water. |
| **Solubility:** | Easily soluble in cold water. Soluble in hot water. |

## 10. Stability and Reactivity Data

| | |
|---|---|
| **Stability:** | The product is stable. |
| **Instability Temperature:** | N/A |
| **Conditions of Instability:** | N/A |
| **Incompatibility with various substances:** | N/A |

**Corrosivity:** Non-corrosive in presence of glass.

**Special Remarks on Reactivity:** N/A

**Special Remarks on Corrosivity:** N/ANot available.

**Polymerization:** No.

## 11. Toxicological Information

**Routes of Entry:** Ingestion.

**Toxicity to Animals:** Acute oral toxicity (LD50): 500 mg/kg (Mouse)
(Calculated value for the mixture).

**Chronic Effects on Humans:** The substance is toxic to lungs, mucous membranes.

**Other Toxic Effects on Humans:**
Hazardous in case of skin contact (irritant), of ingestion. Slightly hazardous in case of skin contact (permeator), of inhalation. Non-corrosive for skin. Non-sensitizer for skin.

**Special Remarks on Toxicity to Animals:** N/A

**Special Remarks on Chronic Effects on Humans:** N/A

**Special Remarks on other Toxic Effects on Humans:** N/A

## 12. Ecological Information

**Ecotoxicity** N/A

**BOD5 and COD** N/A

**Products of Biodegradation** Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** N/A

## 13. Disposal Considerations

**Waste Disposal:**
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

## 14. Transport Information

**DOT Classification:** CLASS 8: Corrosive liquid

**Identification:** Corrosive liquid, n.o.s. (Silver nitrate, solution) : UN1760 PG: III
**Special Provisions for Transport:** Marine Pollutant

## 15. Regulatory Information

**Federal and State Regulations:**

Pennsylvania RTK: Silver nitrate Massachusetts RTK: Silver nitrate TSCA 8(b) inventory: Silver nitrate; Water SARA 313 toxic chemical notification and release reporting: Silver nitrate CERCLA: Hazardous substances.: Silver nitrate;

**Other Regulations: OSHA:**

Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

**Other Classifications:**

**HMIS (U.S.A.):**
Health Hazard: 3 Fire Hazard: 0 Reactivity: 0 Personal Protection:

**National Fire Protection Association (U.S.A.):**
Health: 3 Flammability: 0 Reactivity: 0 Specific hazard:

**Protective Equipment:**
Gloves. Full suit. Wear appropriate respirator when ventilation is inadequate. Face shield.

## 16. Other Information

This information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of the material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.

Abbreviations and acronyms:
**ADR:** Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

**IMDG:** International Maritime Code for Dangerous Goods
**DOT:** US Department of Transportation
**IATA:** International Air Transport Association
**ACGIH:** American Conference of Governmental Industrial Hygienists
**NFPA:** National Fire Protection Association (USA)
**HMIS:** Hazardous Materials Identification System (USA)
**LC50:** Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

## VB-3020-2 Concentrated Ammonium Hydroxide MSDS

### 1. Identification of the Substance/Mixture and Company

**Identification of the substance or mixture**

| | |
|---|---|
| **Product Name** | Concentrated Ammonium Hydroxide |
| **Product number** | VB 3020-2 |
| **Product Description** | Kit Component |

**Manufacturer/Supplier**

VitroVivo Biotech, LLC. 9605 Medical Center Dr. Suite 315, Rockville, MD 20850
Phone: 301-500-0499 Toll free: 1-800-260-9817 Fax: 844-248-6208

### 2. Composition/information on ingredients

**Composition:**

| Component | CAS # |
|---|---|
| Ammonia, anhydrous | 7664-41-7 |
| Water | 7732-18-5 |

**Toxicological Data on Ingredients**: Ammonia, anhydrous: GAS (LC50): Acute: 2000 ppm 4 hours [Rat]. 4230 ppm 1 hours [Mouse].

### 3. Hazards Identification

**Potential Acute Health Effects:**
Very hazardous in case of skin contact (corrosive, irritant, permeator), of eye contact (irritant), of ingestion, . Non-corrosive to the eyes. Non-corrosive for lungs. Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

**Potential Chronic Health Effects:**

Carcinogenicity effects: N/A. Teratogenic effects: N/A. Developmental effects: N/A

Mutagenic effects: Mutagenic for bacteria and/or yeast. [Ammonia, anhydrous].

The substance is toxic to upper respiratory tract, skin, eyes. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

### 4. First Aid Measures

**Eye Contact :**
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

**Skin Contact:**
In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes.

**Serious Skin Contact:**
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate

medical attention.

**Inhalation Exposure:**
If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

**Serious Inhalation:**
Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek medical attention.

**Ingestion:**
If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

## 5. Fire and Explosion Data

**Flammability of the Product:** Non-flammable.

**Auto-Ignition Temperature:** N/A

**Flash Points:** N/A

**Flammable Limits:** N/A

**Products of Combustion:** Hazardous decomposition include Nitric oxide, and ammonia fumes

**Fire Hazards in Presence of Various Substances:**
N/A

**Explosion Hazards in Presence of Various Substances:**
Non-explosive in presence of open flames and sparks, of shocks.

**Fire Fighting Media and Instructions:** N/A

**Special Remarks on Fire Hazards:** N/A

**Special Remarks on Explosion Hazards:** Forms explosive compounds with many heavy metals such as silver, lead, zinc and their halide salts. It can form shock sensitive compounds with halogens, mercury oxide, and siliver oxide.

## 6. Accidental Release Measures

**Small spill:**
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of acetic acid.

**Large spill:**
Corrosive liquid. Poisonous liquid. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of acetic acid. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

## 7. Handling and Storage

**Precautions:**
Keep locked up.. Keep container dry. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as metals, acids

**Storage:**
Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 25°C (77°F).

## 8. Exposure Controls, Personal Protection

**Engineering Controls:**
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location

**Personal Protection:**
Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.

**Personal Protection in Case of a Large Spill:**
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:**
TWA: 25 (ppm) from ACGIH (TLV) [United States] TWA: 50 STEL: 35 (ppm) from OSHA (PEL) [United States] TWA: 25 STEL: 35 from NIOSH Consult local authorities for acceptable exposure limits.

## 9. Physical and Chemical Properties

| | |
|---|---|
| **Physical state and appearance:** | Liquid. |
| **Odor:** | Ammonia-like (Strong.) |
| **Taste:** | Acrid. |
| **Molecular Weight:** | 35.05 |
| **Color:** | Colorless. |
| **pH (1% soln/water):** | 11.6 [Basic.] This is the actual pH in a 1 N solution. |
| **Boiling Point:** | N/A |
| **Melting Point:** | -69.2°C (-92.6°F) |
| **Critical Temperature:** | Not available. |
| **Specific Gravity:** | 0.898 (Water = 1) |
| **Vapor Pressure:** | 287.9 kPa (@ 20°C) |
| **Vapor Density:** | N/A |
| **Volatility:** | N/A |
| **Odor Threshold:** | 5-50 ppm as ammonia |
| **Water/Oil Dist. Coeff.:** | N/A |

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water

**Solubility:** Easily soluble in cold water.

## 10. Stability and Reactivity

**Chemical Stability:**
Stable under normal temperatures and pressures.

**Conditions to Avoid:**
Incompatible materials, high temperatures.

**Incompatibilities with Other Materials:**
Highly reactive with metals. Reactive with acids. Slightly reactive to reactive with oxidizing agents.

**Corrosivity:**
Extremely corrosive in presence of zinc, of copper. Corrosive in presence of aluminum. Non-corrosive in presence of glass, of stainless steel(304), of stainless steel(316).

**Special Remarks on Reactivity:**
Incompatible with the following: Organic acids, amides, organic anhydrides, isocyanates, vinyl acetate, epichlorhydrin, aldehydes, Acrolein, Acrylic acid, chlorosulfonic acid, dimethyl sulfate, fluorine, gold + aqua regia, hydrochloric acid, hydrofluoric acid, hydrogen peroxide, iodine, nitric acid, olelum, propiolactone, propylene oxide, silver nitrate, silver oxide, silver oxide + ethyl alcohol, nitromethane, silver permanganate, sulfuric acid, halogens. Forms explosive compounds with many heavy metals (silver, lead, zinc) and halide salts.

**Special Remarks on Corrosivity:**
Dissolves copper and zinc. Corrosive to aluminum and its alloys. Corrosive to galvanized surfaces. Severe corrosive effect on brass and bronze

**Polymerization:** Will not occur.

## 11. Toxicological Information

**Absorbed through skin.** Dermal contact. Eye contact. Inhalation. Ingestion.

**Toxicity to Animals:** Acute oral toxicity (LD50): 350 mg/kg [Rat].

**Chronic Effects on Humans:**
MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. [Ammonium hydroxide]. May cause damage to the following organs: mucous membranes, skin, eyes.

**Other Toxic Effects on Humans:**
Very hazardous in case of skin contact (corrosive, irritant, permeator), of ingestion, . Hazardous in case of eye contact (corrosive), of inhalation (lung corrosive).

**Special Remarks on Toxicity to Animals:**
Highly toxic to aquatic organisms

**Special Remarks on Chronic Effects on Humans:**
May affect genetic material based on tests with microorganisms and animals. May cause cancer (tumorigenic) based on animal data. No human data found at this time. (Ammonia, anhydrous)
**Special Remarks on other Toxic Effects on Humans:**

**Acute Potential Health Effects:**

**Skin:** Causes severe irritation. Causes skin burns. May cause deep, penetrating ulcers of the skin. Contact with skin may cause staining, inflammation, and thickening of the skin.

**Eye:** Contact with liquid or vapor causes severe burns and possible irreversible eye damage including corneal injury and cataracts.

**Inhalation:** Causes severe irritation of the upper respiratory tract with coughing, burns, breathing difficulty. May cause acute pulmonary edema, pneumoconiosis, fibrosis, and even coma. It is a respiratory stimulant when inhaled at lower concentrations. It may also affect behavior central nervous system (convulsions, seizures, ataxia, tremor), cardiovascular system (increase in blood pressure and pulse rate).

**Ingestion:** Harmful if swallowed. Affects the Gastrointestinal tract (burns, swelling of the lips, mouth, and larynx, throat constriction, nausea, vomiting, convulsions, shock, and may cause severe and permanent damage), liver, and urinary system (kidneys) May affect behavior (convulsions, seizures, ataxia, excitement).

**Chronic Potential Health Effects:**

**Ingestion:** May cause effects similar to those of acute ingestion.

**Inhalation:** Repeated exposure to low concentrations may cause bronchitis with cough, phlegm, and/or shortness of breath. May also cause liver and kidney damage, and affect the brain, and blood.

**Eye:** May cause corneal damage and the development of cataracts and glaucoma.

**Skin:** Repeated skin contact to low concentrations may cause dryness, itching, and redness (dermatitis)

## 12. Ecological Information

**Ecotoxicity:**

Ecotoxicity in water (LC50): 0.1 ppm 24 hours [Rainbow trout]. 8.2mg/l 96 hours [Fathead minnow]. 0.1 ppm 48 hours [Bluegill].

**BOD5 and COD:** Not available

**Products of Biodegradation:**
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:**
The products of degradation are less toxic than the product itself.

**Special Remarks on the Products of Biodegradation:** Not available.

## 13. Disposal Information

**Waste Disposal:**
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

## 14. Transport Information

**DOT Classification:** Class 8: Corrosive material

**Identification:** Ammonia Solution UNNA: 2672 PG: III
**Special Provisions for Transport:** Not available.

## 15. Regulatory Information

**Federal and State Regulations:**
Connecticut hazardous material survey.: Ammonium hydroxide Illinois toxic substances disclosure to employee act: Ammonium hydroxide Illinois chemical safety act: Ammonium hydroxide New York release reporting list: Ammonium hydroxide Pennsylvania RTK: Ammonium hydroxide Massachusetts RTK: Ammonium hydroxide Massachusetts spill list: Ammonium hydroxide New Jersey: Ammonium hydroxide New Jersey spill list: Ammonium hydroxide New Jersey toxic catastrophe prevention act: Ammonium hydroxide Louisiana spill reporting: Ammonium hydroxide California Director's List of Hazardous Substances (8 CCR 339): Ammonium hydroxide TSCA 8(b) inventory: Ammonium hydroxide CERCLA: Hazardous substances.: Ammonium hydroxide: 1000 lbs. (453.6 kg)

**Other Regulations:**
OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

**DSCL (EEC):**

**HMIS (USA):**

Health Hazard: 3 Fire Hazard: 0 Reactivity: 0 Personal Protection:

**National Fire Protection Association (USA):**

Health: 2 Flammability: 0 Reactivity: 0 Specific hazard:

**Protective Equipment:**
Gloves. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Face shield.

## 16. Other Information

This information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of the material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.

Abbreviations and acronyms:
**ADR:** Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

**IMDG:** International Maritime Code for Dangerous Goods
**DOT:** US Department of Transportation
**IATA:** International Air Transport Association
**ACGIH:** American Conference of Governmental Industrial Hygienists
**NFPA:** National Fire Protection Association (USA)
**HMIS:** Hazardous Materials Identification System (USA)
**LC50:** Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

## VB-3020-3 Gold Chloride Solution MSDS

### 1. Identification of the Substance/Mixture and Company

**Identification of the substance or mixture**

| | |
|---|---|
| **Product Name** | Gold Chloride Solution |
| **Product number** | VB-3020-3 |
| **Product Description** | Kit Component |

**Manufacturer/Supplier**

VitroVivo Biotech, LLC. 9605 Medical Center Dr. Suite 315 Rockville, MD 20850
Phone: 301-500-0499 Toll free: 1-800-260-9817 Fax: 844-248-6208

### 2. Composition/information on ingredients

**Composition:**

| Name | CAS # | % by Weight |
|---|---|---|
| Gold Chloride | 16961-25-4 | 0.1 |
| Water | 7732-18-5 | Balance |

### 3. Hazards Identification

**Emergency Overview:**
May cause irritation to areas of contact. Wash areas of contact with water for at least 15 minutes. Avoid ingestion or contact with skin, eyes, or clothing. If ingested, dilute with large quantity of water and call a physician. Do not induce vomiting.

**Potential Health Effects**

**Eye Contact:**
May cause irritation, redness, pain, and tearing. Inhalation: May cause slight irritation.

**Skin Contact:**
May be harmful if absorbed through skin. Causes skin burns.

**Ingestion:** May cause nausea, vomiting and diarrhea.

**Chronic Effects/Carcinogenicity:** None (**IARC** - No. **NTP** - No. **OSHA** - No).

**Reproductive Information:**
Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Gold Chloride (Tetrachloroauric (III) Acid Trihydrate.

**Teratology (Birth Defect) Information:**
Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Gold Chloride(Tetrachloroauric (III) Acid Trihydrate.

### 4. First Aid Measures

**General advice**
Consult a physician. Show this safety data sheet to the doctor in attendance.Move out of dangerous area.

**Eye Contact:**
Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops.

**Skin Contact:**
Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops.

**Inhalation:**
Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

**Ingestion:**
Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

## 5. Fire Fighting Data

**Suitable extinguishing media**
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Special protective equipment for firefighters**
Wear self contained breathing apparatus for fire fighting if necessary.

**Hazardous combustion products**
Hazardous decomposition products formed under fire conditions. - Decomposes on heating to chlorine gas, hydrogen chloride and metallic gold

**Further information**
The product itself does not burn.

## 6. Accidental Release Measures

**Personal precautions**
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**Environmental precautions**
Do not let product enter drains. Aldrich - 520918 Page 3 of 7

**Methods and materials for containment and cleaning up**
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## 7. Handling and Storage

**Precautions for safe handling**
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

**Conditions for safe storage**
Keep container tightly closed in a dry and well-ventilated place.
Moisture sensitive. Light sensitive.

## 8. Exposure Controls / Personal Protection

**Engineering Controls:**
No specific controls are needed. Normal room ventilation is adequate.

**Personal Protection equipment**

**Eye Protection:**
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Respiratory Protection:**
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type

N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). .

**Skin Protection:**
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Hygiene measures**
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## 9. Physical and Chemical Properties

| | |
|---|---|
| **Appearance:** | Clear, yellow liquid |
| **pH:** | N/A |
| **Odor:** | odorless |
| **Boiling Point:** | 100°C |
| **Solubility in Water:** | Infinite |
| **Melting Point:** | $0^{o}C$ |
| **Specific Gravity:** | 1 |
| **Vapor Pressure:** | N/A |

## 10. Stability and Reactivity Data

**Chemical Stability:**
Stable under normal conditions of use and storage.

**Incompatibility:**
Most metals, Alkalis, active metals, Cyanides, Sulfides, Sulfites, Metal Oxides, Formaldehyde.

**Hazardous Decomposition Products:**
Hazardous decomposition products formed under fire conditions. - Decomposes on heating to chlorine gas, hydrogen chloride and metallic gold

**Hazardous Polymerization:** Will not occur.

## 11. Toxicological Information

**Acute toxicity**

| | |
|---|---|
| **Oral LD50** | N/A |
| **Inhalation LC50** | N/A |
| **Skin corrosion/irritation** | N/A |
| **Serious eye damage/eye irritation** | N/A |
| **Respiratory or skin sensitization** | May cause allergic skin reaction. |
| **Germ cell mutagenicity** | N/A |

**Potential health effects**

**Inhalation**
May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

**Ingestion** May be harmful if swallowed.

**Skin** May be harmful if absorbed through skin. Causes skin burns.

**Eyes** Causes eye burns.

**Synergistic effects** N/A

**Additional Information** RTECS: MD5428000

## 12. Ecological Information

**Ecotoxicological Information:** N/A

**Chemical Fate Information:** N/A

## 13. Disposal Considerations

**Waste Disposal :**
Cover the spill with Sodium Carbonate or a soda ash-slaked lime mixture (50:50). Mix and add water to form slurry. Decant the liquid to the drain with excess water. Treat the solid residue as normal refuse. Always dispose of in accordance with local, state and federal regulations.

## 14. Transport Information

**DOT (U.S.)**
UN number: 3260 Class: 8 Packing group: II
Proper shipping name: Corrosive solid, acidic, inorganic, n.o.s. (Tetrachloroauric acid trihydrate)
Marine pollutant: No
Poison Inhalation Hazard: No

## 15. Regulatory Information

**Federal and State Regulations:** selected regulation represented

**NFPA Ratings:**

Health: 1 Flammability: 0 Reactivity: 0 Special Notice Key: None

**HMIS (U.S.):**

Health: 1 Flammability: 0 Reactivity: 0 Protective

**Equipment:** B (Eyewear, Gloves)

**OSHA Status:**
The above items either do not contain any specifically hazardous material or the potentially hazardous material is present in such low concentration that the items do not present any immediate threat to health and safety. These items do not meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of a hazardous material.

**TSCA Status:**
All components of this solution are listed on the TSCA Inventory or are mixtures (hydrates) of items listed

on the TSCA Inventory.

## 16. Other Information

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Abbreviations and acronyms:
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**IMDG:** International Maritime Code for Dangerous Goods
**DOT:** US Department of Transportation
**IATA:** International Air Transport Association
**ACGIH:** American Conference of Governmental Industrial Hygienists
**NFPA:** National Fire Protection Association (USA)
**HMIS:** Hazardous Materials Identification System (USA)
**LC50:** Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

## VB 3020-4 Sodium Thiosulfate Solution

### 1. Identification of the Substance/Mixture and Company

**Identification of the substance or mixture**

**Product Name** Sodium Thiosulfate Solution
**Product number** VB-3020-4
**Product Description** Kit Component

**Manufacturer/Supplier**

VitroVivo Biotech, LLC. 9605 Medical Center Dr. Suite 315, Rockville, MD 20850
Phone: 301-500-0499 Toll free: 1-800-260-9817 Fax: 844-248-6208

### 2. Composition/information on ingredients

**Composition:**

| Name | CAS # |
|---|---|
| Sodium Thiosulfate | 10102-17-7 |
| Water | 7732-18-5 |

### 3. Hazards Identification

**Emergency Overview**

Appearance: colorless liquid.
**Caution!** May cause respiratory tract irritation. May cause skin irritation. May cause eye irritation. This is expected to be a low hazard for usual industrial handling.
**Target Organs:** None.

**Potential Health Effects**

**Eye:** May cause mild eye irritation.
**Skin:** May cause skin irritation.
**Ingestion:** Ingestion of large amounts may cause gastrointestinal irritation.
**Inhalation:** Low hazard for usual industrial handling. May cause respiratory tract irritation.
**Chronic:** No information found.

### 4. First Aid Measures

**Eye Contact:**
Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops.

**Skin Contact:**
Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops.

**Inhalation:**
Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

**Ingestion:**
Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

### 5. Fire Fighting Data

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

**Extinguishing Media:**
For small fires, use water spray, dry chemical, carbon dioxide or chemical foam.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

**Explosion Limits**
Lower:Not available.
Upper: Not available.

**NFPA Rating: (estimated)** Health: 1; Flammability: 0; Instability: 0

## 6. Accidental Release Measures

**General Information:**
Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:**
Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

## 7. Handling and Storage

**Handling:**
Avoid prolonged or repeated contact with skin. Avoid ingestion and inhalation. Use with adequate ventilation.

**Storage:**
Store in a cool, dry place. Store in a tightly closed container.

## 8. Exposure Controls / Personal Protection

**Engineering Controls:**
Use adequate ventilation to keep airborne concentrations low.

**OSHA Vacated PELs:**
Water: No OSHA Vacated PELs are listed for this chemical. Sodium thiosulfate, pentahydrate: No OSHA Vacated PELs are listed for this chemical.

**Personal Protection:**

**Eye Protection:** Safety glasses or goggles.

**Respiratory Protection:** Normal room ventilation is adequate.

**Skin Protection:** Chemical resistant gloves.

## 9. Physical and Chemical Properties

**Appearance:** Colorless liquid

**pH:** N/A

**Odor:** odorless

**Boiling Point:** 212$^{o}$ F

**Freezing/Melting Point:** 32 $^{o}$ F

**Decomposition Temperature:** N/A

**Vapor Pressure:** 14 mm Hg

**Vapor Density:** N/A

**Evaporation Rate:** >1 (ether=1)

**Viscosity:** N/A

**Solubility in Water:** Completely soluble in water.

**Melting Point:** $0^{o}C$

**Specific Gravity / Density:** 1.0-1.

**Molecular Formula:** Mixture

## 10. Stability and Reactivity Data

**Chemical Stability:** Stable under normal conditions of use and storage.

**Conditions to Avoid:** Excess heat.

**Incompatibilities with Other Materials:** Sodium thiosulfate violently reacts with sodium nitrite. It is also incompatible with strong oxidizers, acid

**Hazardous Decomposition Products:** Hydrogen sulfide, sodium oxide

**Hazardous Polymerization:** Has not been reported.

## 11. Toxicological Information

**RTECS#:**
**CAS#** 7732-18-5: ZC0110000
**CAS#** 10102-17-7: WE6660000
**LD50/LC50:**
CAS# 7732-18-5: Orat: LD50 = >90 mL/kg;

**Carcinogenicity:**
CAS# 7732-18-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 10102-17-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** N/A
**Teratogenicity:** N/A
**Reproductive Effects:** N/A
**Mutagenicity:** N/A
**Neurotoxicity:** N/A
**Other Studies:**

## 12. Ecological Information

**Ecotoxicological Information:** N/A

## 13. Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.
**RCRA U-Series:** None listed.

## 14. Transport Information

This product is not regulated.

## 15. Regulatory Information

**US Federal Regulation**

**TSCA**
CAS# 7732-18-5 is listed on the TSCA inventory.
CAS# 10102-17-7 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2))

**Health & Safety Reporting List**
None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules**
None of the chemicals in this product are under a Chemical Test Rule.

**TSCA Significant New Use Rule**
None of the chemicals in this material have a SNUR under TSCA.

**CERCLA Hazardous Substances and corresponding RQs**
None of the chemicals in this material have an RQ.

**SARA Section 302 Extremely Hazardous Substances**
None of the chemicals in this product have a TPQ.

**OSHA:** None of the chemicals in this product are considered highly hazardous by OSHA.

**State**

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.
CAS# 10102-17-7 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

**Safety Phrases:**
S 24/25 Avoid contact with skin and eyes.

## 16. Other Information

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**DOT:** US Department of Transportation
**IATA:** International Air Transport Association
**ACGIH:** American Conference of Governmental Industrial Hygienists
**NFPA:** National Fire Protection Association (USA)
**HMIS:** Hazardous Materials Identification System (USA)
**LC50:** Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

## VB-3020-5 Nuclear Fast Red Solution MSDS

### 1. Identification of the Substance/Mixture and Company

**Identification of the substance or mixture**

**Product Name** Nuclear Fast Red Solution
**Product number** VB-3020-5
**Product Description** Kit Component

**Manufacturer/Supplier**

VitroVivo Biotech, LLC. 9605 Medical Center Dr. Suite 315, Rockville, MD 20850
Phone: 301-500-0499 Toll free: 1-800-260-9817 Fax: 844-248-6208

### 2. Composition /Information on Ingredients

**Chemical Description:** Mixture

| Name | CAS #. |
|---|---|
| Aluminum Sufate Hydrate | 7784-31-8 |
| Nuclear Fast Red | 6409-77-4 |
| Sodium Azide | 26628-22-8 |
| Water | 7732-18-5 |

May contain additional non-hazardous proprietary ingredients.
May contain additional active ingredients at concentrations

### 3. Hazards Identification

**GHS CLASSIFICATION:** Skin Irritation Category 2; Eye Irritation Category 1; Chronic Aquatic Toxicity Category 3

| Hazard Phrases | |
|---|---|
| H318 | Causes serious eye damage. |
| H315 | Causes skin irritation |
| H411 | Toxic to aquatic life with long lasting effects. |

| Precautionary Phrases | |
|---|---|
| P302+P352 | IF ON SKIN: Wash with plenty of soap and water |
| P305+p351 338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing. |
| P337+P315 | If eye irritation persists: Get medical advice/attention. |
| P273 | Avoid release to the environment. |

### 4. First Aid Measures

**Eyes :**
Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if irritation persists.

**Skin:**
In case of contact, flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention

if irritation develops.

**Ingestion:**
Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**Inhalation:**
Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms worsen.

## 5. Firefighting Measures

**Flammability of the product:**

**Flash point:** Not Available

**Autoignition temperature**: Not Available

**NFPA Hazard classification:**

Health: 2 Flammability: 0 Reactivity: 0 Other:

**HMIS Hazard classification:**

Health: 2 Flammability: 0 Reactivity: 0 Protection: B

**Extinguish media:** Use dry chemical, CO2, water spray (fog) or foam.

**Not suitable:** Do not use water jet.

**Special fire fighting procedures:**
Fire-fighters should wear appropriate protective equipment self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6. Accidental Release Measures

**Small spill and leak:**
Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Do not allow product to enter drains.

**Large spill and leak:**
Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7. Handling and Storage

**Handing :**
Avoid contact with skin and eyes. Wash thoroughly after handling. Avoid breathing vapor.

**Storage:**
Store in accordance with local regulations. Store in a segregated and approved area. Store in a well ventilated area. Store at 2-8°C

## 8. Exposure Controls/Personal Protection

**Engineering controls:**
Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipme

**Respiratory protection:**
Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Eye protection:**
Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: splash goggles

**Skin protection:**
Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Work hygienic practices:**
Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eye wash stations and safety showers are close to the workstation location.

**Notes:**
Avoid releasing large quantities into the environment.

## 9. Physical and Chemical Properties

| | |
|---|---|
| **Appearance:** | Red liquid |
| **Odor:** | Unknown |
| **Physical state:** | Liquid. |
| **pH as supplied:** | N/A |
| **Boiling point:** | N/A |
| **Melting point:** | N/A |
| **Freezing point:** | N/A |
| **Vapor pressure (mmHg):** | N/A |
| **Vapor density (Air = 1):** | N/A |
| **Evaporation rate:** | N/A |
| **Solubility in water:** | Soluble in water |
| **Molecular weight:** | Mixture |
| **Viscosity:** | N/A |

## 10. Stability and Reactivity

| | |
|---|---|
| **Stability:** | Product is stable under normal conditions of use. |
| **Condition to avoid (stability):** | Excessive heat, static electricity, direct sunlight. |
| **Incompatibility (Material to avoid):** | Oxidizers, alkalis, antimony salts, arsenates, carbonates, and phosphates. |
| **Hazardous decomposition:** | Carbon oxides, Nitrogen oxides, oxides of silver. |
| **Hazardous polymerization:** | No hazardous polymerization. |

## 11. Toxicological Information

**Acute toxicity**

| | |
|---|---|
| **Oral LD50** | N/A |
| **Inhalation LC50** | N/A |
| **Dermal LD50** | N/A |
| **Other information on acute toxicity** | N/A |
| **Skin corrosion/irritation** | Irritating to skin and mucous membranes. |
| **Serious eye damage/eye irritation** | Seriously irritating to the eye. |
| **Respiratory or skin sensitization** | N/A |
| **Germ cell mutagenicity:** | N/A |

**International Agency for Research on Cancer (IARC).**
None of the components are listed.

**National Toxicology Program (NTP).**
Although not listed above, this stain is suspected of causing cancer.

**Specific target organ toxicity**

| | |
|---|---|
| **Single exposure** (Globally Harmonized System) | N/A |
| **Repeated exposure** (Globally Harmonized System) | N/A |

| | |
|---|---|
| **Aspiration hazard** | N/A |

**Potential health effects**

| | |
|---|---|
| **Inhalation:** | May cause respiratory tract irritation. |
| **Ingestion:** | Toxic if swallowed. |
| **Skin:** | Causes skin irritation. |
| **Eyes:** | Causes eye irritation. |

**Signs and Symptoms of Exposure**
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

| | |
|---|---|
| **Routes if entry:** | Skin/eye contact, inhalation, and ingestion. |
| **Acute health hazard:** | See above, potential health effects. |

## 12. Ecological Information

| | |
|---|---|
| **Toxicity:** | |
| **Fish:** | N/A |
| **Crustacea:** | N/A |
| **Algae/Aquatic Plants:** | N/A |
| **Other Organisms:** | N/A |
| **Persistence and degradability** | N/A |
| **Bioaccumulative potential** | N/A |
| **Mobility in soil** | N/A |
| **PBT and vPvB assessment** | N/A |
| **Other adverse effects** | N/A |

## 13. Disposal Considerations

**Waste disposal methord:**
Unused product: dispose as a regulated hazardous waste. Spent product or spill clean upfollow all provincial, local, state, and federal regulations.

## 14. Transport Information

**DOT (U.S.)**

| | |
|---|---|
| **Proper shipping name::** | Environmentally hazardous substance, (Liquid) N.O.S. (Silver Nitrate) |
| **Hazard class:** | 9 |
| **ID number:** | UN3082 |
| **Packing group:** | III |
| **Air transportation** | (IATA) |
| **Proper shipping name:** | Environmentally hazardous substance, Liquid . N.O.S.(Silver Nitrate) |
| **Environmental Hazards**: | Yes |

## 15. Regulatory Information

**United States**
**HCS Classification:** Aquatic toxicity:

**U.S. Federal regulations**
**United States inventory (TSCA 8b):**
**TSCA 8(d) H and S data reporting:**
TSCA (Toxic Substance Control Act): All components are listed on the TSCA Inventory.

**States RTK:**
**California Prop. 65**
This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm: None

## 16. Other Information

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