1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: Grocott Methenamine Silver Set, GMS, Sol’n A: Silver Nitrate 1%, Aqueous

   Part Number: 1142
   CAS-No.: Not applicable
   SDS Number: 4230

1.2 Recommended Use: Laboratory Chemicals

1.3 Company: Newcomer Supply

   2505 Parview Road
   Middleton, WI 53562 USA

   Telephone: 1-800-383-7799
   Fax: 1-608-831-0866
   Website: www.newcomersupply.com
   Email: newly@newcomersupply.com

2. HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture

   GHS Classification, (in accordance with 29 CFR1910.1200)
   Acute toxicity (oral), Category 4
   Skin irritation, Category 2
   Serious Eye Damage/Eye irritation, Category 2

2.2 GHS Label elements

   Signal Word: WARNING

   Hazard Statement(s):
   · Harmful if swallowed
   · Causes skin irritation
   · Causes serious eye irritation

   Precautionary Statement(s):

   Prevention:
   · Wear protective gloves/protective clothing/eye protection/face protection.
   · Wash skin thoroughly after handling.
   · Do not eat, drink or smoke when using this product.

   Response:
   · IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
   · IF ON SKIN: Gently wash with plenty of soap and water.
   · Take off contaminated clothing and wash before reuse.
   · IF skin irritation occurs: Get medical advice/attention.
   · IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
   · If eye irritation persists get medical advice/attention.
   · IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

   · Rinse mouth.
   · Specific treatment: see first aid measures in section 4.

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

   Description of any hazards not otherwise classified: None

24 HOUR EMERGENCY CONTACT

CALL CHEMTREC: 1-800-424-9300

Contact CHEMTREC only in the event of an emergency involving a chemical spill, leak, fire, exposure or other accident.
SAFETY DATA SHEET (SDS)

Part Number: 1142

Revision Date: 10/16/2017
Version 1.4

2.4 >1% of mixture with unknown acute toxicity None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Silver Nitrate</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>7761-88-8</td>
</tr>
<tr>
<td></td>
<td>1%</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

4.1 Description of necessary measures

Inhalation (breathing)
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin Contact
IF ON SKIN: Gently wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention.

Eye Contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists get medical advice/attention.

Ingestion (swallowed)
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

4.2 Most important symptoms and or effects, acute and delayed
The most important symptoms/effects are presented in Section 2 and or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media
Carbon dioxide, dry chemical, water spray, alcohol-resistant foam.

5.2 Specific hazards arising from the substance or mixture
No data available

5.3 Protective equipment and precautions for fire-fighters
Wear a positive-pressure self-contained breathing apparatus if necessary. Wear chemical resistant clothing as recommended by clothing manufacturer.

NFPA Rating
Health: 1  Fire: 0  Reactivity: 0

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Apply personal protective equipment (see Section 8). Use in a properly ventilated area. Avoid breathing vapors. Avoid skin contact. Avoid eye contact. Wash hands after use. In case of large spill, remove personnel to a safe area.

6.2 Methods and material for containment and cleaning up
Apply personal protective equipment (see Section 8). Contain spill. Prevent further leakage if possible and safe to do so. Ensure proper ventilation. For small amounts, wipe or absorb spill using inert material and dispose of according to local regulations. For large amounts, evacuate area and limit access. Prevent entry of material into sewage drains and confined areas. Dispose of any contaminated materials according to local regulations.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing.

7.2 Conditions for safe storage, including any incompatibilities
Refer to Section 2.2 for proper storage temperature. Store the tightly closed container in a cool, dry, well-ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters
Components with limit values that require monitoring at the workplace

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Regulatory</th>
<th>Value</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver Nitrate</td>
<td>7761-88-8</td>
<td>OSHA PEL</td>
<td>TWA</td>
<td>0.01 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>TWA</td>
<td>0.01 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL</td>
<td>TWA</td>
<td>0.01 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Exposure Controls
Appropriate engineering controls
Use in a properly ventilated area. Remove/wash before reuse contaminated clothing. Wash hands upon exiting work premises. Use product in an appropriately designated fume hood. Take measures to keep concentrations below acceptable limits.

8.3 Personal Protective Equipment
Eye/face protection
Wear chemical safety goggles and/or a full face shield if splashing is possible. Keep eye wash fountain nearby.

Skin Protection
Wear chemical-resistant gloves. Gloves should be resistant to components of product. Refer to glove manufacturer for appropriate type and glove thickness.

Body Protection
No data available

Respiratory Protection
Respirators should only be used if the employer has a written program that takes into account workplace conditions, requirements for worker training, respirator fit testing, and medical exams as described in the OSHA Respiratory Protection Standard (29 CFR 1910.134).

In case of emergency, entry into or escape from unknown concentrations, select the highest level approved respiratory protection available.

Other Information
None

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Physical state: Clear, colorless liquid
Odor: Odorless
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor threshold</td>
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<tr>
<td>pH</td>
<td>No data available</td>
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<tr>
<td>Melting point/freezing point</td>
<td>No data available</td>
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<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
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</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Water soluble</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available

10.2 Chemical stability
Stable in a closed container within label-specified storage temperature and expiration date.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
Keep away from combustible materials, heat, flame, and sparks.

10.5 Incompatible materials
Silver nitrate reacts with acetylene, in the presence of ammonia, to form silver acetylide, a sensitive and powerful detonator. Silver nitrate reacts violently with combustibles; chlorosulfonic acid and other acids (such as hydrochloric, sulfuric and nitric); metals; metal carbides; reducing agents (such as lithium, sodium, aluminum and their hydrides); and oxidizing agents (such as perchlorates, peroxides, permanganates, chlorates, nitrates, chlorine, bromine and fluorine). Silver nitrate is not compatible with ethylene oxide; charcoal; ammonium hydroxide; ethanol; aziridine; arsenic; sulfur; and many other compounds. Silver nitrate attacks some forms of plastic, rubber and coatings.

10.6 Hazardous decomposition products
Nitrogen oxide, oxygen, and silver oxides

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Inhalation exposure
No data available

Oral exposure
No data available

Dermal exposure
No data available

Skin corrosion/irritation
No data available
Contact with silver nitrate can severely irritate and burn the skin.

**Serious eye damage/irritation**
Contact with silver nitrate can severely irritate and burn the eyes with possible eye damage.

**Respiratory or skin sensitization**
No data available

**Germ Cell mutagenicity**
No data available

**Reproductive toxicity**
No data available

**Specific target organ toxicity - single exposure**
No data available

**Specific target organ toxicity - repeated exposure**
No data available

**Aspiration hazard**
No data available

**Acute toxicity**
Silver Nitrate:
LD50 rat oral 1173 mg/kg

**Carcinogencity**
IARC: None of the components are listed
NTP: None of the components are listed
OSHA: None of the components are listed

**Additional information**
RTECS: No data available

### 12. ECOLOGICAL INFORMATION

#### 12.1 Ecotoxicity
No data available

#### 12.2 Persistence and degradability
No data available

#### 12.3 Bioaccumulative potential
No data available

#### 12.4 Mobility in soil
No data available

#### 12.5 Other adverse effects
No data available

### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste disposal methods

**Contents**
Dispose of contents in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**
Dispose of packaging in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.
14. TRANSPORT INFORMATION

14.1 DOT (US)

<table>
<thead>
<tr>
<th>UN-Number</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name</td>
<td>No data available</td>
</tr>
<tr>
<td>Hazard class</td>
<td>No data available</td>
</tr>
<tr>
<td>Packing group</td>
<td>No data available</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No data available</td>
</tr>
</tbody>
</table>

15. REGULATORY INFORMATION

15.1 No data available

16. OTHER INFORMATION

Preparation Information
Newcomer Supply Inc.
800-383-7799
www.newcomersupply.com
Copyright © Newcomer Supply Inc. All rights reserved.
1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: Grocott Methenamine Silver Set, GMS Sol'n B: Methenamine Borate
   Part Number: 1142
   CAS-No.: Not applicable
   SDS Number: 3480

1.2 Recommended Use: Laboratory Chemicals

1.3 Company: Newcomer Supply
   2505 Parview Road
   Middleton, WI 53562 USA
   Telephone: 1-800-383-7799
   Fax: 1-608-831-0866
   Website: www.newcomersupply.com
   Email: newly@newcomersupply.com

2. HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture
   GHS Classification, (in accordance with 29 CFR1910.1200)
   Reproductive toxicity, Category 2
   Skin sensitisation, Category 1
   Acute toxicity (oral), Category 4

2.2 GHS Label elements
   Signal Word: WARNING
   Pictogram

   Hazard Statement(s):
   - Suspected of damaging fertility or the unborn child
   - May cause an allergic skin reaction
   - Harmful if swallowed

   Precautionary Statement(s):
   Prevention:
   - Obtain special instructions before use.
   - Do not handle until all safety precautions have been read and understood.
   - Wear protective gloves/protective clothing/eye protection/face protection.
   - Avoid breathing dust/fume/gas/mist/vapours/spray.
   - Contaminated work clothing should not be allowed out of the workplace.
   - Wash skin thoroughly after handling.
   - Do not eat, drink or smoke when using this product.

   Response:
   - IF ON SKIN: Gently wash with plenty of soap and water.
   - Wash contaminated clothing before reuse.
   - If skin irritation or a rash occurs: Get medical advice/attention.
   - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
   - Rinse mouth.
   - Specific treatment: see first aid measures in section 4.
   - IF exposed or concerned: Get medical advice/attention.

   Storage:
   - Store locked up.
   Disposal:
   - Dispose of contents/ container to an approved waste disposal plant.

2.3 Description of any hazards not otherwise classified: None
2.4 >1% of mixture with unknown acute toxicity

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Borate</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Methenamine</td>
<td>&lt;3%</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

4.1 Description of necessary measures

**Inhalation (breathing)**
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

**Skin Contact**
IF ON SKIN: Gently wash with plenty of soap and water. If skin irritation or a rash occurs: Get medical advice/attention.

**Eye Contact**
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists get medical advice/attention.

**Ingestion (swallowed)**
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

4.2 Most important symptoms and or effects, acute and delayed

The most important symptoms/effects are presented in Section 2 and or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media
Carbon dioxide, dry chemical, water spray, alcohol-resistant foam.

5.2 Specific hazards arising from the substance or mixture
No data available

5.3 Protective equipment and precautions for fire-fighters

Wear a positive-pressure self-contained breathing apparatus if necessary. Wear chemical resistant clothing as recommended by clothing manufacturer.

**NFPA Rating**

<table>
<thead>
<tr>
<th>Health hazard</th>
<th>Fire hazard</th>
<th>Reactivity hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Apply personal protective equipment (see Section 8). Use in a properly ventilated area. Avoid breathing vapors. Avoid skin contact. Avoid eye contact. Wash hands after use. In case of large spill, remove personnel to a safe area.

6.2 Methods and material for containment and cleaning up
Apply personal protective equipment (see Section 8). Contain spill. Prevent further leakage if possible and safe to do so. Ensure proper ventilation. For small amounts, wipe or absorb spill using inert material and dispose of according to local regulations. For large amounts, evacuate area and limit access. Prevent entry of material into sewage drains and confined areas. Dispose of any contaminated materials according to local regulations.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing.

7.2 Conditions for safe storage, including any incompatibilities
Refer to Section 2.2 for proper storage temperature. Store the tightly closed container in a cool, dry, well-ventilated area.

8. EXPOSURE CONTROLS/PERSOAL PROTECTION

8.1 Control Parameters
Components with limit values that require monitoring at the workplace

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Regulatory Parameters</th>
<th>Value</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Borate</td>
<td>7681-90-5</td>
<td>OSHA PEL</td>
<td>TWA</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>TWA</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>STEL</td>
<td>6 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL</td>
<td>TWA</td>
<td>1 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Exposure Controls
Appropriate engineering controls
Use in a properly ventilated area. Remove/wash before reuse contaminated clothing. Wash hands upon exiting work premises. Use product in an appropriately designated fume hood. Take measures to keep concentrations below acceptable limits.

8.3 Personal Protective Equipment
Eye/Face protection
Wear chemical safety goggles and/or a full face shield if splashing is possible. Keep eye wash fountain nearby.

Skin Protection
Wear chemical-resistant gloves. Gloves should be resistant to components of product. Refer to glove manufacturer for appropriate type and glove thickness.

Body Protection
No data available

Respiratory Protection
No data available

Other Information
None

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Physical state: Clear, colorless liquid
Odor: Odorless
Odor threshold: No data available
pH: No data available
Melting point/freezing point: No data available
Part Number: 1142

Initial boiling point and boiling range: No data available
Flash point: No data available
Evaporation rate: No data available
Flammability (solid, gas): No data available
Upper flammability or explosive limits: No data available
Lower flammability or explosive limits: No data available
Vapor pressure: No data available
Vapor density: No data available
Relative density: No data available
Solubility(ies): Water soluble
Partition coefficient: n-octanol/water: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available

10.2 Chemical stability
Stable in a closed container within label-specified storage temperature and expiration date.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
Strong acids, strong reducing agents, strong oxidizing agents, and sodium peroxide. May corrode some metals.

10.6 Hazardous decomposition products
No data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Inhalation exposure
No data available

Oral exposure
No data available

Dermal exposure
No data available

Skin corrosion/irritation
No data available

Serious eye damage/irritation
No data available

Respiratory or skin sensitization
Guinea pig - strong skin sensitizer

Germ Cell mutagenicity
No data available

Reproductive toxicity

www.newcomersupply.com
Developmental, subchronic and chronic toxicity studies show that the primary targets for borate toxicity are the developing fetus and the male reproductive system.

**Specific target organ toxicity - single exposure**
No data available

**Specific target organ toxicity - repeated exposure**
No data available

**Aspiration hazard**
No data available

**Acute toxicity**
Sodium Borate:
LD50 rat oral 2660 mg/kg

**Carcinogenicity**
IARC: None of the components are listed
NTP: None of the components are listed
OSHA: None of the components are listed

**Additional information**
RTECS: No data available

### 12. ECOLOGICAL INFORMATION

12.1 **Ecotoxicity**
No data available

12.2 **Persistence and degradability**
No data available

12.3 **Bioaccumulative potential**
No data available

12.4 **Mobility in soil**
No data available

12.5 **Other adverse effects**
No data available

### 13. DISPOSAL CONSIDERATIONS

13.1 **Waste disposal methods**

**Contents**
Dispose of contents in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**
Dispose of packaging in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

### 14. TRANSPORT INFORMATION

14.1 **DOT (US)**

- **UN-Number**
  No data available
- **Proper shipping name**
  No data available
- **Hazard class**
  No data available
- **Packing group**
  No data available
- **Environmental hazards**
  No data available
15. REGULATORY INFORMATION

15.1 No data available

16. OTHER INFORMATION

Preparation Information
Newcomer Supply Inc.
800-383-7799
www.newcomersupply.com
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