1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: Decalcification End Point Set Sol’n A: Ammonium Hydroxide, Aqueous
Part Number: 1051
CAS-No.: Not applicable
SDS Number: 2650

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 corrosion, Category 1
Serious eye damage, Category 1

2.2 GHS Label elements

Signal Word: DANGER

Pictogram:

Hazard Statement(s):
· Harmful if swallowed
· Causes severe skin burns and eye damage

Precautionary Statement(s):
Prevention:
· Do not breathe dust/fume/gas/mist/vapours/spray.
· 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 (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
· Wash contaminated clothing before reuse.
· IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
· Specific treatment: see first aid measures in section 4.
· Immediately call a POISON CENTER or doctor/physician.
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>Name</td>
<td>Ammonium Hydroxide</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>1336-21-6</td>
</tr>
<tr>
<td></td>
<td>16.8%</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. Immediately call a POISON CENTER or doctor/physician.

Skin Contact
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor/physician.

Eye Contact
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.

Ingestion (swallowed)
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

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>3</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/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>Ammonium Hydroxide</td>
<td>1310-73-2</td>
<td>OSHA PEL</td>
<td>TWA</td>
<td>50 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL</td>
<td>TWA</td>
<td>25 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL</td>
<td>STEL</td>
<td>35 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>TWA</td>
<td>25 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>STEL</td>
<td>35 ppm</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 implemented 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).

Where the potential exists for exposure over 25 ppm: use a NIOSH approved full facepiece respirator with an acid gas cartridge which is specifically approved for ammonium hydroxide.

Where the potential for high exposure exists, use a NIOSH approved supplied-air respirator with a full facepiece operated in a pressure-demand or other positive pressure mode. For increased protection use in combination with an auxiliary self-contained breathing apparatus or an emergency escape air cylinder.

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Clear, colorless liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Pungent, ammonia odor</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>ca. 0°C (ca. 32°F)</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>ca. 100°C (ca. 32°F)</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>
<td>No data available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>Similar to water</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
No data available

#### 10.5 Incompatible materials
Ammonium hydroxide reacts with many heavy metals (such as silver, copper, lead and zinc) and their salts to form explosive compounds and flammable and explosive hydrogen gas. Ammonium hydroxide may read violently with strong acids (such as hydrochloric, sulfuric and nitric); dimethyl sulfate; and halogens. Ammonium hydroxide will react with strong bases (such as sodium hydroxide and potassium hydroxide) to produce ammonia gas. Do not use copper, aluminum or galvanized metals when handling ammonium hydroxide.

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
Ammonium hydroxide: Contact can severely irritate and burn the skin.

Serious eye damage/irritation
Ammonium hydroxide: Contact can severely irritate and burn the eyes.

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
Ammonium Hydroxide:
LD50 rat oral 350 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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# SAFETY DATA SHEET (SDS)

**Part Number:** 1051

**Revision Date:** 10/16/2017

**Version 1.4**

1. **PRODUCT AND COMPANY IDENTIFICATION**

   1.1 **Product Name:** Decalcification End Point Set Sol’n B: Ammonium Oxalate, Aqueous
   
   **Part Number:** 1051
   
   **CAS-No.:** Not applicable
   
   **SDS Number:** 2660

   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](http://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
   - Acute toxicity (dermal), Category 4
   - Skin irritation, Category 2
   - Serious Eye Damage/Eye irritation, Category 2

   2.2 **GHS Label elements**

   **Signal Word** WARNING

   **Pictogram**

   **Hazard Statement(s):**
   
   - Harmful if swallowed
   - Harmful in contact with skin
   - 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 ON SKIN: Gently wash with plenty of soap and water
   - If skin irritation occurs: Get medical advice/attention
   - Take off contaminated clothing and wash before reuse
   - Immediately call a POISON CENTER or doctor/physician
   - Specific treatment: see first aid measures in section 4
   - Call a POISON CENTER or doctor/physician if you feel unwell
   - 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
   - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

---

**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.
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

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Ammonium Oxalate</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>6009-70-7</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 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: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

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>2</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.
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
Does not contain components with occupational exposure limits.

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 ca. 0°C (ca. 32°F)
Initial boiling point and boiling range ca. 100°C (ca. 32°F)
Flash point No data available
Evaporation rate No data available
Flammability (solid, gas) No data available
Upper flammability or explosive limits 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
Avoid contact with heat, flame, or spark.

10.5 Incompatible materials
Strong bases, metal oxides, metal phosphates, amines, strong oxidizing agents, and strong acids

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
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
No data available

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