Material Safety Data Sheet

### Section 1. Chemical Product and Company Identification

<table>
<thead>
<tr>
<th>Common Name/Trade Name</th>
<th>Catalog Number(s).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Bisulfite, 45% Solution</td>
<td>A1145</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Name(s)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Synonym</td>
<td>Not available.</td>
</tr>
<tr>
<td>Chemical Name</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Chemical Family</td>
<td>Not available.</td>
</tr>
<tr>
<td>Chemical Formula</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Supplier</td>
<td>SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Mixture.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTECS</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>TSCA 8(b) inventory:</td>
<td>Ammonium bisulfite; Water</td>
</tr>
<tr>
<td>CI#</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**IN CASE OF EMERGENCY**

CHEMIREC (24hr) 800-424-9300
CALL (310) 516-8000

### Section 2. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
<th>CEIL (mg/m³)</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Water</td>
<td>7732-18-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Ammonium bisulfite</td>
<td>10192-30-0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Toxicological Data on Ingredients</th>
<th>Ammonium bisulfite</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50: Not available.</td>
<td></td>
</tr>
<tr>
<td>LC50: Not available.</td>
<td></td>
</tr>
</tbody>
</table>

### Section 3. Hazards Identification

**Potential Acute Health Effects**

Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion. Hazardous in case of skin contact (corrosive), of eye contact (corrosive), in case of inhalation. 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. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Continued on Next Page
Ammonium Bisulfite, 45% Solution

Potential Chronic Health Effects

Slightly hazardous in case of skin contact (sensitizer).
CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
The substance may be toxic to lungs, 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.

Section 4. First Aid Measures

Eye Contact
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

Skin Contact
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Get medical attention immediately.

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

Inhalation
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

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. Seek medical attention.

Ingestion
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion
Not available.

Section 5. Fire and Explosion Data

Flammability of the Product
Non-flammable.

Auto-Ignition Temperature
Not applicable.

Flash Points
Not applicable.

Flammable Limits
Not applicable.

Products of Combustion
Not available.

Fire Hazards in Presence of Various Substances
Not applicable.

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

Fire Fighting Media and Instructions
Not applicable.

Special Remarks on Fire Hazards
Not available.

Special Remarks on Explosion Hazards
Not available.

Continued on Next Page
Section 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, basements or confined areas; dilute if needed. Call for assistance on disposal.

Section 7. Handling and Storage

Precautions
Do not breathe gas/fumes/vapor/spray. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.

Storage
Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 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.

Personal Protection

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
Not available.

Section 9. Physical and Chemical Properties

Physical state and appearance
Liquid.

Molecular Weight
Not applicable.

pH (1% soln/water)
Neutral.

Boiling Point
The lowest known value is 100°C (212°F) (Water).

Melting Point
Not available.

Critical Temperature
Not available.

Specific Gravity
Weighted average: 1.3 (Water = 1)

Vapor Pressure
The highest known value is 2.3 kPa (@ 20°C) (Water).

Vapor Density
The highest known value is 0.62 (Air = 1) (Water).

Volatile
Not available.

Odor Threshold
Not available.

Water/Oil Dist. Coeff.
Not available.

Ionicity (in Water)
Not available.

Dispersion Properties
See solubility in water.

Solubility
Easily soluble in cold water, hot water.

Continued on Next Page
### Section 10. Stability and Reactivity Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>Unstable.</td>
</tr>
<tr>
<td>Instability Temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Conditions of Instability</td>
<td>Incompatible materials</td>
</tr>
<tr>
<td>Incompatibility with various</td>
<td>Reactive with oxidizing agents</td>
</tr>
<tr>
<td>substances</td>
<td></td>
</tr>
<tr>
<td>Corrosivity</td>
<td>Non-corrosive in presence of glass</td>
</tr>
</tbody>
</table>

### Special Remarks on Reactivity
Not available.

### Special Remarks on Corrosivity
Not available.

### Polymerization
Will not occur.

### Section 11. Toxicological Information

**Routes of Entry**
Absorbed through skin. Eye contact. Inhalation.

**Toxicity to Animals**
LD50: Not available. LC50: Not available.

**Chronic Effects on Humans**
Contains material which may cause damage to the following organs: lungs, upper respiratory tract, skin, eyes.

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

### Special Remarks on Toxicity to Animals
Not available.

### Special Remarks on Chronic Effects on Humans
Not available.

### Special Remarks on other Toxic Effects on Humans
- **Acute Potential Health Effects**
  - Skin: Causes severe skin irritation and skin burns.
  - Eyes: Causes severe eye irritation and eye burns.
  - Inhalation: Inhalation can be harmful. Inhalation can irritate lungs causing coughing and/or shortness of breath. Higher exposures can cause build-up of fluid in the lungs (pulmonary edema). Inhalation of the fumes released under acidic conditions could cause fatality due acute pulmonary edema and respiratory failure from exposure to evolved sulfur dioxide.
  - Ingestion: Ingestion might result in esophageal or gastrointestinal tract irritation or burns.
  - Chronic Potential Health Effects
    - It would be expected to cause allergic contact dermatitis with repeated skin contact or asthma with repeated inhalation of fumes or mist.

(Ammonium bisulfite)

### Section 12. Ecological Information

**Ecotoxicity**
Not available.

**BOD5 and COD**
Not available.

**Products of Biodegradation**
Possibly hazardous short/long term degradation products are to be expected.

**Toxicity of the Products of Biodegradation**
The product itself and its products of degradation are not toxic.

### Special Remarks on the Products of Biodegradation
Not available.

Continued on Next Page
Section 13. Disposal Considerations

Waste Disposal

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

Section 14. Transport Information

DOT Classification

Class 8: Corrosive material

Identification

UNNA: 2693: Bisulfite, aqueous solution, n.o.s. (Ammonium Bisulfite solution) PG: III

Special Provisions for Transport

Not available.

DOT (Pictograms)

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations

Connecticut hazardous material survey: Ammonium bisulfite
Illinois toxic substances disclosure to employee act: Ammonium bisulfite
Illinois chemical safety act: Ammonium bisulfite
New York release reporting list: Ammonium bisulfite
Pennsylvania RTK: Ammonium bisulfite
Massachusetts RTK: Ammonium bisulfite
Massachusetts spill list: Ammonium bisulfite
New Jersey: Ammonium bisulfite
New Jersey spill list: Ammonium bisulfite
Louisiana spill reporting: Ammonium bisulfite
California Director’s List of Hazardous Substances: Ammonium Bisulfite
TSCA 8(b) inventory: Ammonium bisulfite; Water
CERCLA: Hazardous substances: Ammonium bisulfite: 5000 lbs. (2268 kg);

California Proposition 65 Warnings

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.
California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations


Other Classifications

WHMIS (Canada) CLASS E: Corrosive liquid.

DSCL (EEC) R34: Causes burns.

S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

HMIS (U.S.A.)

Health Hazard Health
Fire Hazard
Reactivity
Personal Protection

National Fire Protection Association (U.S.A.)

Flammability
Reactivity
Specific hazard

WHMIS (Canada) (Pictograms)

Continued on Next Page
Ammonium Bisulfite, 45% Solution

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.

Section 16. Other Information

MSDS Code

AMB45

References

Not available.

Other Special Considerations

Uses: Source of sulfur in fluid fertilizers; in manufacture of industrial explosives and blasting agents; sulfite pulping processes; as corrosion control in drilling fluids. (Ammonium bisulfite)

Validated by Sonia Owen on 11/17/2008.
Verified by Sonia Owen.
Printed 12/2/2008.

CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.