SAFETY DATA SHEET: ACETIC ACID-AMMONIUM ACETATE BUFFER TS

1. IDENTIFICATION

Product Name: ACETIC ACID-AMMONIUM ACETATE BUFFER TS

Synonyms:

Formula and Formula Weight: Mixture NA

Integra numbers beginning with: A070.7A

Recommended Use: Commercial/industrial use

Restrictions on Use: No information available

INTEGRA Chemical Company
24 Hour Emergency Response: CHEMTREC 800-424-9300 (Outside USA 703-527-3887)
1216 6th Ave N
Kent WA 98032
Phone: 253-479-7000

2. HAZARDS IDENTIFICATION

OSHA Classification: Skin Corrosion/Irritation: 2
Eye Damage/Irritation: 2A
Specific Target Organ Toxicity (single exposure): 3

Signal Word: Warning

Precautionary Statements

Prevention:
Avoid breathing fume, gas, mist, vapors, spray.
Use only outdoors or in a well-ventilated area.
Wear eye protection, face protection, protective gloves.

Response
If on skin: Wash with plenty of water
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a poison center, doctor if you feel unwell.
Specific treatment (see first aid section on this label)
If skin irritation occurs: Get medical advice, attention.
If eye irritation persists: Get medical advice, attention.
Take off contaminated clothing and wash it before reuse.

Storage
Store locked up in a well ventilated place. Keep container tightly closed.

Disposal
Dispose of contents, container in accordance with all governmental regulations.

Hazard Not Otherwise Classified: No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Synonyms</th>
<th>CAS #</th>
<th>% Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td></td>
<td>07732-18-5</td>
<td>86</td>
</tr>
<tr>
<td>Ammonium acetate</td>
<td>Acetic acid ammonium salt</td>
<td>00631-61-8</td>
<td>8</td>
</tr>
<tr>
<td>Acetic acid, glacial</td>
<td>Acetic acid; Ethanoic acid; Vinegar acid</td>
<td>00064-19-7</td>
<td>6</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Inhalation: Remove person to fresh air and keep comfortable for breathing.

Eye Contact: Flush eyes with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Seek medical attention.

Skin Contact: Wash with soap and water. Seek medical attention if irritation develops.

Ingestion: If conscious, rinse mouth and give victim large amounts of water. Seek medical attention.

Additional notes: Symptoms and effects include skin and eye irritation, coughing, wheezing, shortness of breath, abdominal pain, nausea, vomiting.

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Special Equipment and Precautions: Use water to cool nearby containers and structures. Wear full protective equipment, including suitable respiratory protection.
6. PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure: Not available
Odor: Strong vinegar odor
Odor Threshold: Not available
pH: Not available
Partition Coefficient: n-octanol/water: Not available
Decomposition Temperature: Not available
Viscosity: Not available
Appearance: Clear, colorless liquid
Melting/Freezing Point: Not available
Initial Boiling Point and Boiling Range: Not available
Flash Point: Not available
Evaporation Rate: Not available
Flammable or Explosive: Not flammable
Limits (% by volume in air)
  Upper: Not available
  Lower: Not available
Flammability: Not flammable
Vapor Pressure: Not available
Vapor Density: Not available
Relative Density: Not available
Solubility: Miscible with water
Partition Coefficient: n-octanol/water: Not available
Auto-Ignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available

7. HANDLING AND STORAGE

Incompatible Materials: Incompatible with strong bases and strong oxidizers. Sodium hypochlorite, reducing materials, cyanides, sulfides, reactive metals.
Storage and Handling: Store locked up in a cool, dry, well-ventilated area away from incompatible materials. Keep containers tightly closed and protect them from physical damage.
  Avoid breathing fume, gas, mist, vapors, spray.
  Use only outdoors or in a well-ventilated area.
  Wear eye protection, face protection, protective gloves.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

OSHA & ACGIH Exposure Limits:
  Water: None identified
  Ammonium acetate: None identified
  Acetic acid, glacial: OSHA TWA: 10 ppm; 25 mg/m3  ACGIH TWA: 10 ppm; 25 mg/m3  ACGIH STEL: 15 ppm; 37 mg/m3
Engineering Controls: Use general or local exhaust ventilation to meet TLV and PEL requirements.
Respiratory Protection: Respiratory protection required if airborne concentrations exceed PEL or TLV. Use a NIOSH approved full facepiece chemical cartridge respirator with an organic vapor cartridge.
Skin/Eye Protective Equipment: Safety goggles, protective clothing and gloves appropriate for the risk of exposure.
  Facilities storing or utilizing this material should have readily accessible eyewash stations and safety showers.
  Select respirators and other safety equipment in accordance with regulations and based upon the particular conditions of use and risk of exposure. Always use safe chemical-handling and good industrial hygiene practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, colorless liquid
Odor: Strong vinegar odor
Odor Threshold: Not available
pH: Not available
Melting/Freezing Point: Not available
Initial Boiling Point and Boiling Range: Not available
Flash Point: Not available
Evaporation Rate: Not available
Flammable or Explosive: Upper: Not available
  Lower: Not available
Flammability: Not flammable
Vapor Pressure: Not available
Vapor Density: Not available
Relative Density: Not available
Solubility: Miscible with water
Partition Coefficient: n-octanol/water: Not available
Auto-Ignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available

10. STABILITY AND REACTIVITY

Reactivity: No information available
Stability: Stable
Possibility of Hazardous Reactions: Hazardous polymerization will not occur
Conditions to Avoid: Excessive heat.
Incompatibles: Incompatible with strong bases and strong oxidizers. Sodium hypochlorite, reducing materials, cyanides, sulfides, reactive metals.

11. TOXICOLOGICAL INFORMATION

Effects of Over Exposure:
  Inhalation: Inhalation may irritate the nose, throat and upper respiratory tract. Coughing, wheezing, shortness of breath.
  Skin Contact: Contact may cause skin irritation.
  Eye Contact: May irritate or burn the eyes.
  Ingestion: Harmful if swallowed. Ingestion may cause nausea, vomiting and gastrointestinal irritation. Ingestion of large quantities may result in diuresis and systemic ammonia poisoning.
  Chronic Effects: Liver damage.

Specific Hazards: Fire conditions may liberate toxic and noxious fumes.
Target Organs: Liver.
Additional Effects: May aggravate pre-existing liver disorders.
Reproductive Effects: None identified
Carcinogenicity: None identified

Toxicity Data:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>LD$_{50}$ (intraperitoneal, mouse)</td>
<td>736 mg/kg</td>
</tr>
<tr>
<td>Ammonium acetate</td>
<td>LC$_{50}$ (inhalation, mouse)</td>
<td>5620 ppm/1hr</td>
</tr>
<tr>
<td>Acetic acid, glacial</td>
<td>TCl$_{0}$ (human)</td>
<td>816 ppm/3 min</td>
</tr>
<tr>
<td></td>
<td>LD$_{50}$ (oral, rat)</td>
<td>3310 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Irritation (skin, human)</td>
<td>Mild, 50 mg/24 hr</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

Aquatic Toxicity Data: No information available
Terrestrial Toxicity Data: No information available

<table>
<thead>
<tr>
<th>Substance</th>
<th>LC$_{50}$ (Amphiuma carpio) 48h</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium acetate</td>
<td></td>
<td>No information available</td>
</tr>
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<td></td>
<td>No information available</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Disposal Procedures: Dispose of material and containers in accordance with all local, state and federal regulations.

14. TRANSPORTATION INFORMATION

This product is not a regulated material for domestic ground transportation.

- Environmental hazards: No information available
- Special precautions: No information available
- Bulk transport: No information available

15. REGULATORY INFORMATION

Ammonium acetate is listed in the TSCA inventory.
Acetic acid, glacial is listed in the TSCA inventory.

16. OTHER INFORMATION

OSHA SDS #: 25037 rev 101 6.9.2015

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**** END OF SDS ****