Section 1 - Chemical Product and Company Identification

MSDS Name: Pyridine-Barbituric Acid Solution
Catalog Numbers: LC22190
Synonyms: None
Company Identification: LabChem Inc
200 William Pitt Way
Pittsburgh, PA 15238
Company Phone Number: (412) 826-5230
Emergency Phone Number: (800) 424-9300
CHEMTREC Phone Number: (800) 424-9300 or 011-703-527-3887

Section 2 – Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>&gt;50</td>
</tr>
<tr>
<td>7647-01-0</td>
<td>Hydrochloric acid</td>
<td>6</td>
</tr>
<tr>
<td>67-52-7</td>
<td>Barbituric acid</td>
<td>6</td>
</tr>
<tr>
<td>110-86-1</td>
<td>Pyridine</td>
<td>30</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

Emergency Overview

Appearance: light amber solution
Danger! Corrosive. May cause irritation or burns by all exposure routes. May cause cancer based on animal data. May be harmful if swallowed or inhaled.

Target Organs: eyes, skin, liver, kidneys, teeth, gastrointestinal and respiratory tracts, central nervous system

Potential Health Effects
Eye:
May cause eye irritation or burns.

Skin:
May cause skin irritation or burns.
Material Safety Data Sheet
Pyridine-Barbituric Acid Solution

Ingestion:
May cause gastrointestinal irritation with nausea, vomiting, and diarrhea. May be harmful if swallowed.

Inhalation:
May cause irritation to respiratory tract. May be harmful if inhaled.

Chronic:
May cause cancer based on animal data. May cause dermatitis and conjunctivitis. May cause liver and kidney damage. May cause central nervous system depression.

Section 4 - First Aid Measures

Eyes:
Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

Skin:
Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid at once.

Ingestion:
Do not induce vomiting. Give conscious victim 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid at once.

Inhalation:
Move victim to fresh air immediately. If breathing is difficult, administer oxygen. Give artificial respiration if necessary. Get medical aid at once.

Notes to Physician:
Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Contact with metals may evolve flammable hydrogen gas.

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

Autoignition Temperature:
No information found.

Flash Point:
No information found.

NFPA Rating:
Health- 2 Flammability- 1, Instability- 0

Explosion Limits:
Lower: n/a Upper: n/a

Section 6 - Accidental Release Measures

General Information:
Use proper personal protective equipment as indicated in Section 8.
Material Safety Data Sheet  
Pyridine-Barbituric Acid Solution

Spills/Leaks:  
Absorb spill with inert material such as sand, vermiculite, or diatomaceous earth, and transfer to a suitable container labeled for later disposal.

**Section 7 - Handling and Storage**

**Handling:**  
Wash thoroughly after handling. Do not ingest or inhale. Do not get in eyes, on skin, or on clothing. Use with adequate ventilation.

**Storage:**  
Store tightly capped in a refrigerated area away from incompatible materials.

**Section 8 - Exposure Controls, Personal Protection**

**Engineering Controls:**  
Facilities using or storing this material should be equipped with an eyewash and safety shower. Provide local exhaust or general dilution ventilation to keep airborne levels below the permissible exposure limits.

**Exposure Limits:**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>None of the components are on this list</td>
<td>None of the components are on this list</td>
<td>None of the components are on this list</td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td>2 ppm Ceiling</td>
<td>5 ppm Ceiling 7 mg/m3 Ceiling 50 ppm IDLH</td>
<td>5 ppm Ceiling 7 mg/m3 Ceiling</td>
</tr>
<tr>
<td>Barbituric acid</td>
<td>None of the components are on this list</td>
<td>None of the components are on this list</td>
<td>None of the components are on this list</td>
</tr>
<tr>
<td>Pyridine</td>
<td>1 ppm TWA</td>
<td>5 ppm TWA 15 mg/m3 TWA 1000 ppm IDLH</td>
<td>5 ppm TWA 15 mg/m3 TWA</td>
</tr>
</tbody>
</table>

**OSHA Vacated PELs:**  
Hydrochloric acid: 5 ppm Ceiling; 7 mg/m3 Ceiling  
Pyridine: 5 ppm TWA; 15 mg/m3 TWA

**Personal Protective Equipment**

**Eyes:**  
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133. Do not wear contact lenses when working with chemicals.

**Skin:**  
Wear appropriate protective gloves to prevent skin exposure.

**Clothing:**  
Wear appropriate protective clothing to prevent skin exposure.

**Respirators:**  
Follow the OSHA respirator regulations found in 29 CFR 1910.134. Always use a NIOSH-approved respirator when necessary.

**Section 9 - Physical and Chemical Properties**
Material Safety Data Sheet
Pyridine-Barbituric Acid Solution

Physical State: Clear liquid
Color: Light amber
Odor: Pungent odor
pH: Acidic
Vapor Pressure: No information found.
Vapor Density: No information found.
Evaporation Rate: No information found.
Viscosity: No information found.
Boiling Point: No information found.
Freezing/Melting Point: No information found.
Decomposition Temperature: No information found.
Solubility in water: Soluble
Specific Gravity/Density: No information found.
Molecular Formula: No information found.
Molecular Weight: No information found.

Section 10 - Stability and Reactivity

Chemical Stability:
Stable under normal temperatures and pressures.

Conditions to Avoid:
Incompatible materials, excess heat.

Incompatibilities with Other Materials:
Oxidizing agents, bases, metals.

Hazardous Decomposition Products:
Hydrogen chloride, carbon monoxide, carbon dioxide, hydrogen cyanide, nitrogen oxides.

Hazardous Polymerization:
Will not occur.

Section 11 - Toxicological Information

RTECS:
CAS# 7732-18-5: ZC0110000.
CAS# 7647-01-0: MW4025000, MW4031000.
CAS# 67-52-7: CP8000000.
CAS# 110-86-1: UR8400000.

LD50/LC50:
CAS# 7732-18-5:
  Oral, rat: LD50 = >90 mL/kg
CAS# 7647-01-0:
  Inhalation, rat: LC50 = 3124 ppm/1H
  Dermal, rabbit: LD50 = 5010 mg/kg
  Oral, rat: LD50 = 700 mg/kg
CAS# 67-52-7:
  Oral, rat: LD50 = >5 g/kg
CAS# 110-86-1:
  Inhalation, rat: LC50 = 28500 mg/m3/1H
  Oral, rat: LD50 = 891 mg/kg
  Dermal, rabbit: LD50 = 1121 mg/kg
Material Safety Data Sheet
Pyridine-Barbituric Acid Solution

Carcinogenicity:
CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or California Proposition 65.
CAS# 7647-01-0: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or California Proposition 65.
CAS# 67-52-7: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or California Proposition 65.
CAS# 110-86-1: Listed as a carcinogen by ACGIH.

Epidemiology:
No information found

Teratogenicity:
See actual entry in RTECS for complete information.

Reproductive:
See actual entry in RTECS for complete information.

Mutagenicity:
See actual entry in RTECS for complete information.

Neurotoxicity:
No information found

Section 12 - Ecological Information
No information found

Section 13 - Disposal Considerations
Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: Hydrochloric acid, solution
Hazard Class: 8
UN Number: UN1789
Packing Group: PG II

Section 15 - Regulatory Information

US Federal
TSCA:
CAS# 7732-18-5 is listed on the TSCA Inventory.
CAS# 7647-01-0 is listed on the TSCA Inventory.
CAS# 67-52-7 is listed on the TSCA Inventory.
CAS# 110-86-1 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ):
CAS# 7647-01-0: final RQ = 5000 pounds (2270 kg)
CAS# 110-86-1: final RQ = 1000 pounds (454 kg)
Material Safety Data Sheet
Pyridine-Barbituric Acid Solution

CERCLA/SARA Section 313:
This material contains Hydrochloric acid (CAS# 7647-01-0, 6% v/v), and Pyridine (CAS# 110-86-1, 30%), which are subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

OSHA - Highly Hazardous:
CAS# 7647-01-0 is considered highly hazardous by OSHA.

US State
State Right to Know:
Hydrochloric acid can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.
Pyridine can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

California Regulations:
None

European/International Regulations
Canadian DSL/NDSL:
CAS# 7732-18-5 is listed on Canada's DSL List.
CAS# 7647-01-0 is listed on Canada's DSL List.
CAS# 67-52-7 is listed on Canada's DSL List.
CAS# 110-86-1 is listed on Canada's DSL List.

Canada Ingredient Disclosure List:
CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.
CAS# 7647-01-0 is listed on Canada's Ingredient Disclosure List.
CAS# 67-52-7 is not listed on Canada's Ingredient Disclosure List.
CAS# 110-86-1 is listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: October 21, 1997
Revision Date: October 28, 2011
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