### Section 1. Product and Company Identification

<table>
<thead>
<tr>
<th><strong>Product Name</strong></th>
<th>Ambroxol Hydrochloride</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product ID</strong></td>
<td>A4806</td>
</tr>
<tr>
<td><strong>Chemical Name</strong></td>
<td>Abramen; Ambril; Duramucal; Fluibron; Fluixol; Mucolear; Mucosolvan</td>
</tr>
<tr>
<td><strong>Supplier</strong></td>
<td>LKT Laboratories, Inc</td>
</tr>
<tr>
<td></td>
<td>545 Phalen Blvd.</td>
</tr>
<tr>
<td></td>
<td>St. Paul, MN 55130 USA</td>
</tr>
<tr>
<td></td>
<td>Ph: 651-644-8424 Fax: 651-644-8357</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.lktlabs.com">www.lktlabs.com</a> - <a href="mailto:getinfo@lktlabs.com">getinfo@lktlabs.com</a></td>
</tr>
<tr>
<td><strong>Emergency Phone #</strong></td>
<td>1-800-424-9300</td>
</tr>
</tbody>
</table>

### Section 2. Hazards Identification

**GHS Classification**
- Not a hazardous substance or mixture.

**GHS Label elements including precautionary statements**

**Pictogram**

**Signal word**

**Hazard and precautionary statements**

**Hazard statement**
- Not a hazardous substance or mixture.

**Precautionary statement**
- Not a hazardous substance or mixture.

### HMIS Classification

<table>
<thead>
<tr>
<th><strong>Health hazard</strong>:</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chronic health hazard</strong>:</td>
<td>0</td>
</tr>
<tr>
<td><strong>Flammability</strong>:</td>
<td>0</td>
</tr>
<tr>
<td><strong>Physical hazard</strong>:</td>
<td>0</td>
</tr>
</tbody>
</table>

### NFPA Rating

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

### Potential Health Effects

- Inhalation - May be harmful if inhaled. May cause respiratory tract irritation.
- Skin - May be harmful if absorbed through skin. May cause skin irritation.
- Eyes - May cause eye irritation.
Ingestion - May be harmful if swallowed.

Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substances</th>
<th>Formula</th>
<th>Formula Wt.</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C\textsubscript{13}H\textsubscript{18}Br\textsubscript{2}N\textsubscript{2}O • HCl</td>
<td>414.57</td>
<td>23828-92-4</td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

Eye Contact
Flush eyes with water as a precaution.

Skin Contact
Wash off with soap and plenty of water. Consult a physician.

Inhalation
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Ingestion
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5. Firefighting Measures

Flash Point
Not available.

Extinguishing Media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Firefighting Procedures
Wear self-contained breathing apparatus for fire fighting and protective clothing if necessary.

Unusual Fire Hazards

Section 6. Accidental Release Measures

Personal Precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Avoid breathing dust.

Environmental Precautions
Do not let product enter drains.

Methods and materials for containment and cleanup
Avoid creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7. Handling and Storage

Handling
Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Storage Conditions
Keep in a dry and well-ventilated place, in a tightly closed container. Protect from light.

Hazardous Decomposition Products
Not available.

Other Remarks
None.
Section 8. Exposure Controls/Personal Protection

**Personal protective equipment**

EXPOSURE CONTROLS
Contains no substances with occupational exposure limit values.
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

PERSONAL PROTECTION
Eye/face protection: Safety glasses with side-shields conforming to EN 166 use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).
Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Body Protection: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection: Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid</td>
<td>White or yellowish crystalline powder.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting Point</td>
<td>233°C-234.5°C (dec)</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in methanol.</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>Not available.</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>Not available.</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Not available.</td>
</tr>
<tr>
<td>Partition coefficient:</td>
<td>n-octanol/water</td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odor</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Section 10. Stability and Reactivity

**Stability**
Stable under recommended storage conditions.

**Materials To Avoid**
Not available.

**Hazardous Decomposition Products**
Not available.
Section 11. Toxicological Information

Oral LD50  Rat - 4,203 mg/kg
Lungs, thorax or Respiration: Dyspnea.

Inhalation LC50  Not available.

Dermal LD50  Not available.

Other information on acute toxicity  Not available.

Skin corrosion/irritation  Not available.

Serious eye damage/irritation  Not available.

Respiratory or skin sensitization  Not available.

Germ cell mutagenicity  Not available.

Reproductive Toxicity  Not available.

Aspiration Hazard  Not available.

Synergistic effects  Not available.

Specific organ toxicity single exposure (GHS)  Not available.

Additional Information  RTECS: GV8425000

Teratogenicity  Not available.

Signs and symptoms of exposure  Not available.

Potential Health Effects
Inhalation - May be harmful if inhaled. May cause respiratory tract irritation.
Skin - May be harmful if absorbed through skin. May cause skin irritation.
Eyes - May cause eye irritation.
Ingestion - May be harmful if swallowed.

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Section 12. Ecological Information

Toxicity  Not available.

Mobility in soil  Not available.

PBT and vPvB assessment  PBT/vPvB assessment not available as chemical safety assessment not required/not
Section 13. Disposal Considerations

**Waste Disposal**
- Dispose of material according to all federal, state and local regulations.
- Offer material to a licensed professional waste disposal company to dispose of as unused product.

Section 14. Transport Information

**DOT (US)** Not dangerous goods.
**IATA** Not dangerous goods.
**IMDG** Not dangerous goods.

Section 15. Regulatory Information

**Reach No.**

**SARA 302 Components**
- No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**
- This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Components**
- No SARA Hazards.

**Massachusetts Right To Know Components**
- No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components**
- Ambroxol Hydrochloride  CAS-No. 23828-92-4  Revision Date:

**New Jersey Right To Know Components**
- Ambroxol Hydrochloride  CAS-No. 23828-92-4  Revision Date:

**California Prop 65 Components**
- This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Section 16. Other Information

**Other information**
- The information in this document is believed to be correct but is not necessarily complete. LKT does not guarantee the accuracy of the information. The burden of verifying the information in this document rests solely upon the user.