**Section 1. Product and Company Identification**

<table>
<thead>
<tr>
<th>Product Name</th>
<th>N-Acetyl-L-Cysteine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product ID</td>
<td>A0918</td>
</tr>
<tr>
<td>Chemical Name</td>
<td>Acetylcysteine; Brunac; Fabrol; Fluimucil; Fluprowit; Mucosil</td>
</tr>
<tr>
<td>(Synonyms)</td>
<td></td>
</tr>
<tr>
<td>Supplier</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>Emergency Phone #</td>
<td>1-800-424-9300</td>
</tr>
</tbody>
</table>

**Section 2. Hazards Identification**

<table>
<thead>
<tr>
<th>GHS Classification</th>
<th>Not a hazardous substance or mixture.</th>
</tr>
</thead>
</table>

**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**
- Health hazard: 0
- Chronic health hazard: *
- Flammability: 0
- Physical hazard: 0

**NFPA Rating**
- Health hazard: 0
- Fire hazards: 0
- Reactivity hazard: 0

**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.
Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substances</th>
<th>Formula</th>
<th>CAS No.</th>
<th>Formula Wt.</th>
<th>EC No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C_5H_9NO_3S</td>
<td>616-91-1</td>
<td></td>
<td>163.20</td>
<td>210-498-3</td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

General advice

Eye Contact
Flush eyes with water as a precaution.

Skin Contact
Wash off with soap and plenty of water.

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

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

Section 5. Firefighting Measures

Flash Point
Not available.

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

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

Unusual Fire Hazards
Carbon oxides, nitrogen oxides (NOx), sulfur oxides.

Section 6. Accidental Release Measures

Personal Precautions
Avoid dust formation. Avoid breathing vapors, mist, or gas.

Environmental Precautions
Do not let product enter drains.

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

Section 7. Handling and Storage

Handling
Wear gloves, goggles, and lab coat when handling this material. Use appropriate exhaust ventilation at places where dust is formed.

Storage Conditions
Store in a cool, dry and well-ventilated place in a tightly closed container. Recommended storage temperature: Ambient

Hazardous Decomposition Products
Carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides.

Other Remarks
None.

Ingestion: May be harmful if swallowed.
Section 8. Exposure Controls/Personal Protection

**Personal protective equipment**

EXPOSURE CONTROLS
Contains no substances with occupational exposure limit values.

General industrial hygiene practice.

**PERSONAL PROTECTION**

**Eye/face protection**: Face shield and safety glasses. 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. Full or Splash contact: Nitrile rubber - Minimum layer thickness 0.11, break through time 480 min., Material tested: Dermatril ® (KCL 740 / Aldrich Z677272, Size M).

**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).

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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 powder.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Boiling Point</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Melting Point</th>
<th>Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>106°C-109.5°C</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Solubility</th>
<th>pH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble in water.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flash Point</th>
<th>Ignition temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lower explosion limit</th>
<th>Autoignition temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Upper explosion limit</th>
<th>Vapor pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water solubility</th>
<th>Odor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble in water.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Partition coefficient: n-octanol/water</th>
<th>Odor Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relative vapor density</th>
<th>Evaporation rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

-------------------

Section 10. Stability and Reactivity

<table>
<thead>
<tr>
<th>Stability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stable under recommended storage conditions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Materials To Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keep away from heat, strong oxidizing agents, heavy metals, heavy metal salts, rubber, and oxygen.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hazardous Decomposition Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides.</td>
</tr>
</tbody>
</table>
Section 11. Toxicological Information

### Oral LD50
- Rat: 5,050 mg/kg
- Mouse: 4,400 mg/kg

### 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.

### 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.

### Reproductive Toxicity
- Not available.

### Teratogenicity
- Not available.

### Specific organ toxicity
- Single exposure (GHS): Not available.
- Repeated exposure (GHS): Not available.

### Aspiration Hazard
- Not available.

### Signs and symptoms of exposure
- Bronchospasm, nausea, vomiting, stomatitis and nasal discharge

### 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.

### Additional Information
- RTECS: HA1660000

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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 N-Acetyl-L-Cysteine CAS #: 606-91-1 Revision Date:

New Jersey Right To Know Components N-Acetyl-L-Cysteine CAS #: 606-91-1 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.