MSDS Sheet for St. Louis Crafts' 5-77
Liver of Sulphur

P.O. BOX 333, RADIO ROAD
HANOVER, PENNSYLVANIA 17331 U.S.A.

Emergency Telephone Number:
CHEMTREC: 1-800-424-8300
717-832-8921

Telephone Number for Information:
717-832-8921

Date Prepared:
4/21/89

Signature of Preparer (Optional):

Section I — Identity

Manufacturer's Name:
MILLER CHEMICAL & FERTILIZER CORP.

Address (Number, Street, City, State, and ZIP Code):
BOX 333, RADIO ROAD
HANOVER, PA 17331

IDENTITY (As Used on Label and List):
LINE SULFUR SOLUTION

Item Numbers: 60505-1004

Section II — Hazardous Ingredients/Identity Information

Hazardous Component (Specific Chemical Identity; Common Name(s)) | OSHA PEL | ACGIH TLV | Other Limits | Recommended % (v/w)
--- | --- | --- | --- | ---
CALCIUM POLYSULFIDE | CAS No. 1344-81-6 | NE | NE | NE

No OSHA Exposure Standard or TLV has been established for this material. However, the OSHA Exposure Standard for H2S is 10 ppm.

Section III — Physical/Chemical Characteristics

Boiling Point: ND
Specific Gravity (H2O = 1): 1.283

Vapor Pressure (mm Hg): ND

Vapor Density (AIR = 1): ND
Evaporation Rate (Butyl Acetate = 1): ND

Solubility in Water: Very Soluble

Appearance and Odor:
Deep Red-Orange Color, "Rotten Egg" Odor

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used): ND
Flammable Limits: LEL ND UEL

Extinguishing Media:
CO2, Dry Chemical, Foam, Water Spray

Special Fire Fighting Procedures:
Smoke from fires involving this material may present unusual hazards. Avoid breathing these fumes. Avoid contact with fallout or runoff. Minimize the amount of water used for extinguishing or fighting. Do not enter enclosed area without self-contained breathing equipment. Co and isolate runoff and debris for proper disposal.

(Reproduce locally): NE - None Established
ND - None Determined

OSHA 174, Sect: NE - None Established
ND - None Determined

Chemical Name: LIVER OF SULPHUR

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**Section V — Reactivity Data**

<table>
<thead>
<tr>
<th>Stability</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstable</td>
<td>Excessive Heat</td>
</tr>
<tr>
<td>Stable</td>
<td></td>
</tr>
</tbody>
</table>

**Incompatibility (Materials to Avoid)**

Reacts with Acidic Materials such as vinegar, fertilizers and acids to produce hydrogen sulfide.

**Hazardous Decomposition or Byproducts**

Normal combustion forms carbon dioxide and water vapor, and may form oxyhydrocarbon derivatives and sulfur derivative including hydrogen sulfide.

**Polymerization**

May Occur

<table>
<thead>
<tr>
<th>Conditions to Avoid</th>
<th>NA</th>
<th>X</th>
</tr>
</thead>
</table>

**Section VI — Health Hazard Data**

<table>
<thead>
<tr>
<th>Route(s) of Entry</th>
<th>Inhalation?</th>
<th>Skin?</th>
<th>Ingestion?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Health Hazards (Acute and Chronic)

If mixed with acids, highly toxic H$_2$S gas will be released. H$_2$S is irritating to the respiratory tract. Causes skin irritation and may produce systemic toxicity by skin absorption. Corrosive to eyes and causes eye irritation and damage. Moderately toxic if swallowed. About one ounce could be fatal to a 150 pound human.

**Carcinogenicity**

NTP? NE

IARC Monographs? NE

OSHA Regulated? No

**Signs and Symptoms of Exposure**

NA

**Medical Conditions Generally Aggravated by Exposure**

None Known

**For severe hydrogen sulfide poisoning, successful treatment has involved initial inhalation of nitrogen.**

**Emergency and First Aid Procedures**

Nitrate pearls for 15 to 30 seconds of each minute until 10 ml of solution of sodium nitrate can be administered intravenously at 2.5 to 5 ml per minute. 

Wash eyes immediately with fresh water for at least 15 minutes, get medical attention. 

**Eyes:** 

Wash thoroughly, remove contaminated clothing. 

**INGESTION:** Do not give anything but water, see a doctor. 

**Clean up spills immediately.** 

**INHALATION:** Move person to fresh air, see a doctor. 

Absorb with inert material such as sand, sweep up and place in a waste disposal container. 

**Treat area with household bleach.** Take up bleach with absorbant. Flush area with water. 

**Waste Disposal Method**

Contaminated materials should be placed in disposable containers. Dispose of containers and waste in accordance with Local/State/Federal regulations.

**Precautions to Be Taken in Handling and Storage**

Keep out of reach of children and animals. Do not store near feed and foodstuffs. Avoid breathing mists and vapors. Avoid contact with skin and eyes. Avoid ingestion. 

**Other Precautions**

Keep away from heat, open flames and sources of ignition. Wash thoroughly after handling. Read and observe all precautions on the product label. 

**Section VIII — Control Measures**

**Respiratory Protection (Specify Type)**

Use adequate ventilation or a respirator approved for organic vapors.

**Ventilation**

Local Exhaust Preferred Special NA

Mechanical (General) NA NA

**Protective Gloves**

Rubber or Neoprene NA

Eye Protection Safety/Splash Goggles

**Other Protective Clothing or Equipment**

Clean, impervious body covering clothing

**Work/Hygiene Precautions**

Do not get on skin or on clothing, minimize skin contact by wearing protective equipment, wash thoroughly after handling.

**NA — Not Applicable or Not Available**

The information herein is given in good faith, but no warranty, expressed or implied, is made.
## MATERIAL SAFETY DATA SHEET

**PROPER NAME AND CLASSIFICATION**: Calcium Polysulfide

**Chemical Name & Synonyms**: Calcium Polysulfide

**Chemical Family**: Polysulfide

**Trade Name & Synonyms**: Lime Sulfur, Liver of Sulfur

### TYPICAL PROPERTIES:

<table>
<thead>
<tr>
<th>Physical Form</th>
<th>Liquid</th>
<th>Vapor Pres. (22°C)</th>
<th>mm Hg*</th>
<th>Lbs./Gal. (68°F)</th>
<th>10.7</th>
<th>Vapor Density (Air-1)</th>
<th>*Methylene Chloride</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor</td>
<td>Rotten Eggs</td>
<td>Color</td>
<td>Orange</td>
<td>Boiling Pt., °F</td>
<td>200</td>
<td>Specific Grav. (20°C)</td>
<td>1.28</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Miscible</td>
<td>Ph.</td>
<td>10.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### HAZARD CLASSIFICATION:

- **FIRE**: 0
- **TOXICITY**: 1
- **ODOR**: 3
- **REACTIVITY**: 1
- **CORROSIVENESS**: 2

**Hazard Rating Code**: 0 - None, 1 - Slight, 2 - Moderate, 3 - High, U - Unknown

<table>
<thead>
<tr>
<th>Flash Point (Method Used)</th>
<th>Flammable Limits (% by weight)</th>
<th>Lel</th>
<th>Vel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non Combustible</td>
<td></td>
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</tbody>
</table>

**Extinguishing Media**: 

**Special Fire Fighting Precautions**: 

**Unusual Fire & Explosion Hazards**: 

### HEALTH HAZARD DATA

**Threshold Limit Value**: 

<table>
<thead>
<tr>
<th>Oral LD&lt;sub&gt;50&lt;/sub&gt;</th>
<th>Dermal LD&lt;sub&gt;50&lt;/sub&gt;</th>
<th>Inhalation LC&lt;sub&gt;50&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effects of Overexposure**: Irritating to eyes, nose and skin. A burning tendency when contact is made with the skin. Also a discoloring effect. Nausea can be experienced due to offensive odor.</td>
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</tr>
</tbody>
</table>

**Emergency & First Aid Procedures**: 

For odor exposure remove patient to fresh air area - in case of contact, wash exposed areas with water.
**Stability**

<table>
<thead>
<tr>
<th>Stability</th>
<th>Unstable</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Stable</td>
<td>Stable</td>
<td></td>
</tr>
</tbody>
</table>

**Incompatibility (Materials to Avoid)**
- Decomposed by acids
- Hazardous Decomposition Products
  - None Known

**Polymerization**
- May Occur
- Conditions to Avoid
  - Will Not Occur

**SPILL OR LEAK PROCEDURES:**
Steps to be taken in case material is released or spilled

- Wash immediately with generous amount of water.

**Waste Disposal Method**
- Bury sweepings and wash area with water

**Container Disposal Method**
- Bury containers in acceptable disposal area

**SPECIAL PROTECTION INFORMATION:**
- Respiratory Protection (Specify Type)
  - Self contained respirators recommended
- Protective Gloves
  - Eye Protection
    - Goggles of general safety type
- Rubber
  - Other Protective Equipment
    - None Required

**SPECIAL PRECAUTIONS:**
- Precautions to be taken in handling and storing
  - No special precaution required. Avoid breathing material and contact in case of spillage.
- Other Precautions

**NOTE:** Under no circumstances should personal enter confined spaces, particularly storage tanks, without self contained breathing apparatus.
In response to your recent request... enclosed is a Material Safety Data Sheet for our "H-57 Liver of Sulphur".

Also, the following is a list of its ingredients:

- Calcium Polysulfide  29-31%
- Calcium Thiosulfate   4-5%
- Baume' reading at 60 degrees F  32 degrees
- Sulfur  26-30%
- Calcium  6-10%

CONFORMS TO ASTM D-4236

St. Louis Crafts, Inc.

E.D. Hungerman

Phone: 1-314-639-0030

Maid-o'-Metal and Crafts-Maid craft supplies