SECTION 1: Identification

1.1. Identification
Product form: Substance
Substance name: 0-0-0-90 Elemental Sulfur
Formula: S, S2, S4, or S8
Other means of identification: Sulfur, Flowers of Sulfur, Brimstone

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture: Various Industrial and Agricultural Applications

1.3. Details of the supplier of the safety data sheet
MarVista Resources
745 North Ave.
Corcoran, Ca. 93212 - USA
T 559-992-4535

1.4. Emergency telephone number
Emergency number: 24 Hour Emergency HAZMAT Response: (800) 229-5252; EPA National Response Center: (800) 424-8802

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture
Classification (GHS-US)
Skin corrosion/irritation: H315
Category 2
Full text of H statements: see section 16

2.2. Label elements
GHS-US labeling
Hazard pictograms (GHS-US): GHS07

Signal word (GHS-US): Warning
Hazard statements (GHS-US): H315 - Causes skin irritation
Precautionary statements (GHS-US): P264 - Wash skin thoroughly after handling
P280 - Wear protective gloves, eye protection
P302+P352 - If on skin: Wash with plenty of water
P321 - Specific treatment (see the first aid section on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it before reuse

2.3. Other hazards
No additional information available

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance
Name: 0-0-0-90 Elemental Sulfur

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>sulfur, solid</td>
<td>(CAS No) 7704-34-9</td>
<td>90 - 100</td>
<td>Skin Irrit. 2, H315</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16

3.2. Mixture
Not applicable
SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general
- If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation
- Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact
- Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact
- Rinse eyes with water as a precaution.

First-aid measures after ingestion
- If swallowed, give lukewarm water (1/2 liter) and induce vomiting if victim completely conscious/alert. Get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries
- moderate skin irritation.

Symptoms/injuries after inhalation
- May cause slight irritation.

Symptoms/injuries after skin contact
- Irritation.

Symptoms/injuries after eye contact
- May cause slight irritation.

Symptoms/injuries after ingestion
- May cause gastrointestinal discomfort.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
- Water spray. Dry powder. Foam.

5.2. Special hazards arising from the substance or mixture

Fire hazard
- In finely divided state: increased fire hazard.

Reactivity
- The product is non-reactive under normal conditions of use, storage and transport.

5.3. Advice for firefighters

Protection during firefighting
- Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures
- Ventilate spillage area. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment
- Do not attempt to take action without suitable protective equipment. For further information refer to section 8 Exposure controls/personal protection* **.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment
- Dam up the solid spill.

Methods for cleaning up
- Recover mechanically the product.

Other information
- Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8 : Exposure-controls/personal protection* **.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling
- Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.

Hygiene measures
- Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions
- Store in a well-ventilated place. Keep cool.

Incompatible products
SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>sulfur, solid (7704-34-9)</th>
<th>ACGIH</th>
<th>ACGIH TWA (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td></td>
<td>3 mg/m³</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

- **Appropriate engineering controls**: Ensure good ventilation of the work station.
- **Hand protection**: Protective gloves.
- **Eye protection**: Safety glasses.
- **Skin and body protection**: Wear suitable protective clothing.
- **Respiratory protection**: In case of insufficient ventilation, wear suitable respiratory equipment.
- **Environmental exposure controls**: Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical state</strong></td>
<td>Solid</td>
</tr>
<tr>
<td><strong>Appearance</strong></td>
<td>Yellow solid.</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Mixture contains one or more component(s) which have the following colour(s): Pure substance: light yellow Unpurified: yellow to brown</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Sulfur</td>
</tr>
<tr>
<td><strong>Odor threshold</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>Acidic</td>
</tr>
<tr>
<td><strong>Melting point</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Freezing point</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Boiling point</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Relative evaporation rate (butyl acetate=1)</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>May form combustible dust concentrations in air</td>
</tr>
<tr>
<td><strong>Explosion limits</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Explosive properties</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Oxidizing properties</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>2.07 Not applicable</td>
</tr>
<tr>
<td><strong>Relative vapor density at 20 °C</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Solubility</strong></td>
<td>Dispersible.</td>
</tr>
<tr>
<td><strong>Log Pow</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Viscosity, kinematic</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Viscosity, dynamic</strong></td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

- **Minimum ignition energy**: >

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.
10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use. Fine dust dispersed in air may ignite.

10.4. Conditions to avoid
None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

sulfur, solid (7704-34-9)

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>&gt; 5000 mg/kg (Rat)</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 2000 mg/kg (Rabbit)</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>&gt; 9.23 mg/l/4h (Rat)</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation

- Causes skin irritation.
  - pH: Acidic

Serious eye damage/irritation

- Not classified
  - pH: Acidic

Respiratory or skin sensitization

- Not classified

Germ cell mutagenicity

- Not classified

Carcinogenicity

- Not classified

Reproductive toxicity

- Not classified

Specific target organ toxicity (single exposure)

- Not classified

Specific target organ toxicity (repeated exposure)

- Not classified

Aspiration hazard

- Not classified

Symptoms/injuries after inhalation

- May cause slight irritation.

Symptoms/injuries after skin contact

- Irritation.

Symptoms/injuries after eye contact

- May cause slight irritation.

Symptoms/injuries after ingestion

- May cause gastrointestinal discomfort.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general

- The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

sulfur, solid (7704-34-9)

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>866 mg/l (96 h; Brachydanio rerio)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>&gt; 100 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)</td>
</tr>
<tr>
<td>TLM fish 1</td>
<td>10000 ppm (96 h; Gambusia affinis)</td>
</tr>
<tr>
<td>Threshold limit other aquatic organisms 1</td>
<td>&gt; 10000 mg/l (24 h; Daphnia magna)</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

sulfur, solid (7704-34-9)

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
<td>Biodegradability: not applicable. Biodegradability in soil: not applicable. Adsorbs into the soil.</td>
</tr>
<tr>
<td>Biochemical oxygen demand (BOD)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Chemical oxygen demand (COD)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>ThOD</td>
<td>Not applicable</td>
</tr>
<tr>
<td>BOD (% of ThOD)</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
### 12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>sulfur, solid (7704-34-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Pow</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
</tr>
</tbody>
</table>

### 12.4. Mobility in soil

<table>
<thead>
<tr>
<th>sulfur, solid (7704-34-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecology - soil</td>
</tr>
</tbody>
</table>

### 12.5. Other adverse effects

Effect on the global warming: No known ecological damage caused by this product.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

<table>
<thead>
<tr>
<th>Waste disposal recommendations</th>
<th>Avoid discharge of large amounts into the sewer. Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecology - waste materials</td>
<td>Avoid release to the environment.</td>
</tr>
</tbody>
</table>

### SECTION 14: Transport information

**Department of Transportation (DOT)**  
In accordance with DOT  
Not regulated for transport  

**TDG**  
No additional information available

**Transport by sea**  
No additional information available

**Air transport**  
No additional information available

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

<table>
<thead>
<tr>
<th>sulfur, solid (7704-34-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
</tbody>
</table>

#### 15.2. International regulations

**CANADA**  
No additional information available

**EU-Regulations**  
No additional information available

**National regulations**  
No additional information available

#### 15.3. US State regulations

**0-0-0-90 Elemental Sulfur**  
State or local regulations  
U.S. - Pennsylvania - RTK (Right to Know) List  
U.S. - Massachusetts - Right To Know List

<table>
<thead>
<tr>
<th>sulfur, solid (7704-34-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
</tr>
</tbody>
</table>

### SECTION 16: Other information

Revision date: 09/04/2015
0-0-0-90 Elemental Sulfur
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-phrases:

<table>
<thead>
<tr>
<th>H315</th>
<th>Causes skin irritation</th>
</tr>
</thead>
</table>

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard : 1 - Must be preheated before ignition can occur.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

SDS US (GHS HazCom 2012)

All information contained in this Safety Data Sheet is furnished free of charge and is intended for your evaluation. In our opinion the information is, as of the date of this Safety Data Sheet, reliable, however, it is your responsibility to determine the suitability of the information for your use. You are advised not to construe the information as absolutely complete since additional information may be necessary or desirable when particular, exceptional or variable conditions or circumstances exist or because of applicable laws or government regulations. Therefore, you should use this information only as a supplement to other informations gathered by you, and you must make independent determinations of the suitability and completeness of the information from all sources to assure both proper use of the material described herein and the safety and health of employees. Accordingly, no guarantee is expressed or implied as to the results to be obtained based upon your use of the information.