MATERIAL SAFETY DATA SHEET

Section 1- PRODUCT IDENTIFICATION

<table>
<thead>
<tr>
<th>COMPOSITION</th>
<th>PRODUCT NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>PbS</td>
<td>Lead Sulfide</td>
</tr>
</tbody>
</table>

Section 2- HAZARDOUS INGREDIENTS

Note: Products under normal conditions do not represent an inhalation, ingestion or contact health hazard.

<table>
<thead>
<tr>
<th>MATERIAL OR COMPONENT</th>
<th>CAS NUMBER</th>
<th>WT%</th>
<th>EXPOSURE LIMITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PbS</td>
<td>1314-87-0</td>
<td>100</td>
<td>OSHA PEL (Mg/M³) ACGIH TLV (MG/M³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.2mg(Pb)/m³</td>
</tr>
</tbody>
</table>

Section 3- PHYSICAL DATA

<table>
<thead>
<tr>
<th>MATERIAL IS (AT NORMAL CONDITIONS)</th>
<th>APPERANCE AND ODOR:</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Liquid</td>
<td>Silver metallic crystals or black powder. “Rotten Egg” Odor.</td>
</tr>
<tr>
<td>□ Solid</td>
<td></td>
</tr>
<tr>
<td>□ Gas</td>
<td></td>
</tr>
<tr>
<td>□ Other</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MELTING POINT (BASE METAL):</th>
<th>SPECIFIC GRAVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1114°C</td>
<td>7.5gm/cc</td>
</tr>
</tbody>
</table>

Section 4- FIRE AND EXPLOSION

<table>
<thead>
<tr>
<th>Flash Point (Method Used)</th>
<th>Flammable Limits</th>
<th>LEL</th>
<th>UEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>See below</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

EXTINGUISHING MEDIA

Do not use water. Use dry chemical Co2.

SPECIAL FIRED FIGHTING PROCEDURES

Wear full face self contained breathing apparatus and full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS

When heated to decomposition, PbS emits very toxic lead oxide fumes of Sb and SOx. Can react with water, steam, or acids to produce toxic and flammable gas, creating fire and explosion hazards.

Section 5- REACTIVITY DATA

<table>
<thead>
<tr>
<th>STABILITY</th>
<th>INCOMPATABILITY (MATERIALS TO AVOID)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstable</td>
<td>ICI, H2O2, strong acids, moisture &amp; air.</td>
</tr>
</tbody>
</table>

CONDITIONS TO AVOID

Heat, flames and incompatible materials

HAZARDOUS DECOMPONSTION PRODUCTS

Pb, PbO, S & SOx
Section 6- HEALTH HAZARD GUIDE

**MAJOR EXPOSURE HAZARD**
- Inhalation
- Skin
- Skin Absorption
- Eye Contact
- Ingestion

**EFFECTS OF OVEREXPOSURE**

**INHALATION:** May cause sneezing, coughing, difficulty breathing and irritation of the mucous membrane of the respiratory tract.

**SKIN CONTACT:** May cause irritation, itching and dermatitis.

**EYE CONTACT:** May cause burning sensation, irritation, redness and watering.

**OTHER:** Sulfides: The alkaline sulfides are similar in action to alkalies. They cause softening and irritation of the skin. If taken orally, they are corrosive and irritating through the liberation of hydrogen sulfide and free alkali. Sulfides of the heavy metals are generally insoluble and hence have little toxic action except through the liberation of hydrogen.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:** Respiratory Disorders.

**EMERGENCY & FIRST AID PROCEDURES**

**INHALATION:** Remove from exposed area to fresh air immediately. If breathing is difficult, give oxygen.

**SKIN CONTACT:** Remove contaminated clothing. Wash affected area with soap or mild detergent.

**EYE CONTACT:** Flush eyes with lukewarm water for 15 minutes.

**INGESTION:** Give 1-2 glasses of milk or water to induce vomiting.

Section 7- SPILL OR LEAK PROCEDURES

**SPILL OR LEAK PROCEDURES**

Wear a self-contained breathing apparatus and full protective clothing. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency unit and place in a container for disposal. Insure that water/moisture is kept out of the area.

**WASTE DISPOSAL METHODS**

Dispose in accordance with federal, state and local regulations.

Section 8- SPECIAL PROTECTION

**RESPIRATORY**

NIOSH approved dust-mist-fume cartridge respirator.

**VENTILATION**

Local exhaust to maintain level below the TLV. Handle in a dry, inert controlled environment. Mechanical ventilation is not recommended.

**EYE PROTECTION & PROTECTIVE CLOTHING**

Safety glasses and neoprene gloves are recommended.

Section 9- SPECIAL PRECAUTIONS

Store in a tightly closed container; in a cool dry place. Wash hands and face thoroughly after handling and before eating.

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