MSDS - Material Safety Data Sheet

Product Name: LEAD SUBSTITUTE

MSDS No.: M5012

I. Basic Information:

Manufacturer: RADIATOR SPECIALTY COMPANY
Address: P.O. BOX 159, 600 RADIATOR ROAD
City, ST Zip: INDIAN TRAIL, NC  28079
Emergency Contact: Rocky Mountain Poison Control Center
Emergency Telephone Number: 303-623-5716
Contact: Robert Geer

Information Telephone Number: 704-688-3430

Last Update: 02/21/2003

Chemical State: Liquid

Chemical Type: Mixture

II. Ingredients:

CAS No.    Chemical Name                  % Range  EHS  IARC  SARA  OSHA  ACGIH
         ��                   XPEL  313  PEL  TLV  Other Limits
95636  1,2,4-Trimethylbenzene          >0.5  X               25 ppm  NJ, Pa. R
64742887 Aliphatic Solvent Naphtha     5-10  2000 mg/m N/E
111842  Nonane                           >1          200 ppm (T 200 ppm (  
111659  Octane                           >1          300 ppm (T 300 ppm (  
68476346 Petroleum distillate, Aliphatic 80-90  100 ppm
Proprietary Sodium sulfonate           1-5  N/E  N/E

III. Hazardous Identification:

Hazard Category:

Acute  Chronic  Fire  Pressure  Reactive

Hazardous Identification Information:

Danger: Harmful or fatal if swallowed. Eye and skin irritant. Combustible.

IV. First Aid Measures:

Route(s) of Entry:

Absorption, Inhalation, and Ingestion.

Health Hazards (Acute and Chronic):

Signs and Symptoms:

Eye Contac: Irritant. Prolonged contact may cause conjunctivitis.

Skin Contact: Irritant. Defatting of tissue, dermatitis may occur.

Inhalation: Irritant to mucous membranes. Repeated exposure may cause narcosis.

Ingestion: HARMFUL OR FATAL IF SWALLOWED. May cause burns to mouth, throat & stomach.
Medical Conditions Generally Aggravated by Exposure:

Eye Contact: Flush eyes with clean water for 15 minutes while lifting eyelids. Get prompt medical attention.
Skin Contact: Wash with soap and water thoroughly. If adverse effects persist, get prompt medical attention. Launder contaminated clothing before reuse.
Inhalation: Remove to fresh air. If breathing becomes difficult give oxygen and get prompt medical attention. If breathing stops, give artificial respiration and get prompt medical attention.
Ingestion: DO NOT INDUCE VOMITING! Call Poison Control Center, physician, or hospital emergency room immediately. Aspiration of vomitus into the lungs can cause pneumonia, which can be fatal.

Other Health Warnings:

Vomiting and subsequent aspiration into the lungs may lead to chemical pneumonia and pulmonary edema which is a potentially fatal condition.

V. Fire Fighting Measures:

Flash Point: >140 F       Lower Explosive Limit: N/E       Upper Explosive Limit: N/E
F.P. Method: TCC
Fire Extinguishing Media: Water Fog, Foam, Carbon Dioxide, Dry Chemical

Special Fire Fighting Procedures:

Wear self-contained positive pressure breathing apparatus and protective clothes. Cool containers with a water fog. Do not use forced water stream as this could cause the fire to spread.

Unusual Fire and Explosion:

Toxic fumes, gases or vapors may evolve on burning. Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back.

VI. Accidental Release Measures:

Steps to be Taken in Case Material is Released or Spilled:

Eliminate all ignition sources. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Dike or contain spill and absorb with inert materials (sand, sawdust, absorbent sweeping compounds, rags, etc). Using a non-metalic scoop, place contaminated material into an approved chemical waste container. Where possible, vacuum spilled liquid using an explosion proof vacuum to recover material. Prevent run-off to sewers, streams, or other bodies of water. If run-off occurs, notify proper authorities as required that a spill has occurred.

VII. Handling and Storage:

Precautions to be Taken:

Handling: Use with adequate ventilation and proper protective equipment.
Do not use or store near fire, sparks, or flame.

Other Precautions:

Keep container closed tightly when not in use. CAUTION: Combustible.
Store in a cool place below 120 F away from acids, ignition sources and oxidizing agents.
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VIII. Exposure Controls/Personal Protection:

Ventilation Requirements:

See Section 2 for applicable exposure limits. Maintain adequate ventilation. Avoid breathing vapors. In restricted areas, use approved chemical filters designed to remove vapor. In confined areas, use approved air line type respirator or hood. A self-contained breathing apparatus is required for vapor concentrations above TLV limit.

Personal Protective Equipment:

See Section 2 for applicable exposure limits. For prolonged exposure wear protective safety glasses, gloves, and apron.

IX. Physical and Chemical Properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>300°F</td>
</tr>
<tr>
<td>Melting Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/D</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg.)</td>
<td>N/D</td>
</tr>
<tr>
<td>Specific Gravity (H2O = 1)</td>
<td>0.86600</td>
</tr>
<tr>
<td>Vapor Density (AIR = 1)</td>
<td>N/D</td>
</tr>
<tr>
<td>Solubility In Water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>Dark amber liquid with petroleum odor.</td>
</tr>
</tbody>
</table>

X. Stability and Reactivity:

Stability:

Stable

Incompatibility (Materials to Avoid):

Oxidizing agents. Open flame, or spark, and acids

Decomposition/By Products:

Fire: Normal products of combustion: carbon monoxide, carbon dioxide, and oxides of sulfur and nitrogen.

XI. Toxicological Information:

N/D

XII. Ecological Information:

N/D

XIII. Disposal Considerations:

DISPOSAL: This container may be recycled in a recycling centers when empty. Before offering for recycling, empty the can or bottle by using the product according to the label. If recycling is not available, wrap the container and discard in the trash. Dispose of unused product in accordance with all local, state government and federal laws and regulations.
XIV. Transport Information:

U.S. Department of Transportation (DOT)
Non-Bulk: Not Regulated

International Information:
Vessel: IMDG Regulated: yes
Air: ICAO Regulated: yes

XV. Regulatory Information:

See Section 2 for SARA Reportable Chemicals.

USA TSCA: All components of this material are listed on the US TSCA Inventory.

Warning: This product contains a chemical(s) known to the State of California to cause cancer or birth defects or other reproductive harm.

XVI. Other Information:

KEEP AWAY FROM CHILDREN AND ANIMALS!
WEARING CONTACT LENSES IS INADVISABLE.

N/E: Not Established
N/D: Not Determined
N/A: Not Applicable

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