1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SANTOVAC® MCS-293 HIGH PERFORMANCE FLUID
FOR CHEMICAL EMERGENCY, SPILL LEAK, FIRE EXPOSURE, OR ACCIDENT
Call CHEMTREC – Day or Night – 1-800-424-9300.
For additional non-emergency information, call: 636-723-0240

2. COMPOSITION/INFORMATION ON INGREDIENTS

SANTOVAC® MCS-293 lubricant is a proprietary fluid mixture. The specific Chemical identity is being withheld because it is a trade secret of the SANTOLUBES LLC All components of SANTOVAC MCS-293 lubricant appear on the Inventory of Chemical Substances published by the U.S. Environmental Protection Agency under the authority of the Toxic Substances Control Act. (TSCA).

3. HAZARDS IDENTIFICATION

SARA Hazard Notification
- Hazard Categories Under Criteria of SARA Title III
  - Rules (40 CFR Part 30): None
  - Section 313 Toxic Chemical(s): Not Listed

4. FIRST AID MEASURES

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of material from eyes, skin, and clothing.

5. FIRE FIGHTING MEASURES

Flash Point: 440°F (227°C) minimum Method: Cleveland Open Cup
Auto-ignition Temperature: 500°C Method: ASTM D 2155
Extinguishing Media: In case of fire use water spray, foam, dry chemical, carbon dioxide or any Class B extinguishing agent.
Special Fire Fighting Procedures: Wear self-contained breathing apparatus when exposed to products of combustion, which includes sulfur dioxide (SO₂).
6. ACCIDENTAL RELEASE MEASURES

Emergency Spill and Leak Information: Contain fluid. Transfer liquid to containers for recovery or disposal. Absorb small leaks on sand or clay-type media for disposal.

7. HANDLING AND STORAGE

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of material from eyes, skin, and clothing.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection: SANTOVAC® MCS-293 does not cause significant eye irritation or eye toxicity requiring special protection. Use good industrial practice to avoid eye contact.

Skin Protection: Although SANTOVAC® MCS-293 does not present a significant skin concern, exposure should be minimized by following good industrial practice. Wearing protective gloves is recommended. Thoroughly wash hands and contaminated skin after handling.

Respiratory Protection: SANTOVAC® MCS-293 is not likely to present an airborne exposure concern under normal use. Use NIOSH/MSA approved respiratory protection equipment if needed for mist and vapor exposure during unusual handling conditions. Observe respirator use limitations specified by NIOSH/MSA or manufacturer. Respiratory protection programs must comply with 29 CFR § 1910.134.

Airborne Exposure Limits:

- OSHA PEL: None established
- ACGIH TLV: None established

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Light yellow, hazy liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Moderate thiophenol odor</td>
</tr>
<tr>
<td>Vapor Pressure @ 226°C</td>
<td>1.1mm Hg</td>
</tr>
<tr>
<td>Viscosity @100°F</td>
<td>25.2 cSt</td>
</tr>
<tr>
<td>Specific Gravity @ 25°C/25°C</td>
<td>1.19 –1.21</td>
</tr>
<tr>
<td>Pour Point</td>
<td>-20°F</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Very low</td>
</tr>
<tr>
<td>Boiling Point (760 mm Hg)</td>
<td>Approximately 775°F (413°C)</td>
</tr>
</tbody>
</table>

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

10. STABILITY AND REACTIVITY
Stability: SANTOVAC® MCS-293 is stable under ordinary handling and storage conditions.

Materials to avoid: Exposure to materials that are strong oxidizing agents should be avoided.

Hazardous Decomposition Products: Combustion products will include sulfur dioxide (SO₂).

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

The following information presents both human experience and the results of scientific experiments used by qualified experts to assess the effects of SANTOVAC® MCS-293 on the health of exposed individuals and to support precautionary statements and Occupational Control Procedures recommended in this document. Proper evaluation of this health-related data may require the assistance of individuals trained in interpretation of this type of information.

Effects of Exposure

Patch testing of 50 human volunteers with SANTOVAC® MCS-293 produced no positive reactions following initial application, any of 15 serial applications or upon subsequent re-challenge 2 weeks later. SANTOVAC® MCS-293 is not considered a primary irritant, a fatiguing agent or a sensitizing agent.

Toxicological Data

Oral LD50 (Rat): > 34,600 mg/kg, Practically Nontoxic
Dermal LD50 (Rabbit): > 10,200 mg/kg, Practically Nontoxic
Eye Irritation (Rabbit): (Avg. Max.) 10.2 on a scale of 110.0, Minimally Irritating
Vapor Inhalation (Rats): 0 out of 6 animals died when exposed to an average theoretical vapor concentration of 0.029 mg/l air of SANTOVAC® MCS-293.

12. ECOLOGICAL INFORMATION

No specific ecological data are available for this product. Please refer to Section 6 for information regarding accidental releases and Section 15 for regulatory reporting information.

13. DISPOSAL CONSIDERATIONS

This material when discarded is not a hazardous waste as defined by the Resource, Conservation and Recovery Act (RCRA), 40 CFR 261. Dispose of in accordance with all federal, state and local environmental regulations. Recommended method of disposal is by high temperature incineration at a RCRA approved TSDF. If there are any questions regarding the disposal of this material, please consult the Environmental, Health & Safety Department of SANTOLUBES LLC at 636-723-0240.

14. TRANSPORT INFORMATION

DOT Proper Shipping Name: Not Applicable
Material Safety Data Sheet
SANTOVAC® MCS-293

DOT Hazard Class/I.D. No.: This product is not classified as a hazardous material by the U.S. Department of Transportation.

DOT Label(s): Not Applicable

15. REGULATORY INFORMATION

Reportable Quantity (RQ)
Under U.S. EPA CERCLA Regulations: None Listed

16. OTHER INFORMATION

This is for people trained in the National Paint & Coatings Association’s (NPCA) Hazardous Materials Identification System (HMIS) and the National Fire Protection Association (NFPA 704):

<table>
<thead>
<tr>
<th>NPCA-HMIS</th>
<th>NFPA 704</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEALTH</td>
<td>Flammability</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>FLAMMABILITY</td>
<td>Reactivity</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>REACTIVITY</td>
<td>Other Hazard</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PROTECTIVE EQUIPMENT</td>
<td></td>
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</tbody>
</table>

HAZARD INDEX

0 = Minimal Hazard  1 = Slight Hazard  2 = Moderate Hazard  3 = Serious Hazard  4 = Severe Hazard

SANTOVAC® is a trademark of SANTOLUBES LLC.

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Date: 06/17/09

Supersedes 03/14/08