VANLUBE® 7611M is an organic liquid, ashless dialkyl dithiophosphate ester. It is a multi-functional additive that provides EP/antiwear performance in addition to antioxidant performance. Multiple wear tests show the antiwear properties are similar to that of zinc dialkyldithiophosphate (ZDDP). At higher loads, VANLUBE 7611M will improve the antiwear properties of sulfurized extreme pressure additives. VANLUBE 7611M contains no metals and is applicable to ashless and low ash formulations.

**CHEMICAL COMPOSITION**
Ashless phosphorodithioate

**TYPICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Amber liquid</td>
</tr>
<tr>
<td>Color, ASTM D1500</td>
<td>1.5</td>
</tr>
<tr>
<td>Density at 15.6 °C, Mg/m³</td>
<td>1.08</td>
</tr>
<tr>
<td>Sulfur Content, %</td>
<td>11.6</td>
</tr>
<tr>
<td>Phosphorus Content, %</td>
<td>6.0</td>
</tr>
<tr>
<td>Viscosity at 100 °C, mm²/s</td>
<td>2.5</td>
</tr>
</tbody>
</table>

*The analytical data listed above are not specifications*

**APPLICATIONS**

- Compressor oil
- Engine oil
- Grease
- Synthetic lubes
- Turbine oil
- Hydraulic fluid
- ATF

**RECOMMENDED TREAT RATES**

- Typically 0.5 - 2.0 weight percent depending on formulation

**ADVANTAGES**

- NSF approved for use in food grade HX-2 lubricants
- Provides synergistic anti-wear performance when combined with organomolybdate esters ([MOLYVAN® 855](#))
- Liquid, zinc-free dithiophosphate antiwear-agent, useful in applications where ZDDP is not appropriate
- Effective when used in combination with VANLUBE® 7723 and VANLUBE® 887 in formulating zinc-free hydraulic oils (U. S. Patent 6,046,144)
- Low acid number allows flexibility in many formulations

**SOLUBILITY**

- Soluble in mineral and synthetic hydrocarbon fluids

*Please see user advisory on next page.*
STANDARD PACKAGING

425 lb Drum

STORAGE AND HANDLING

STORAGE

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10 of SDS) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

HANDLING

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 of SDS for additional information on hygiene measures.

REGISTRATION

Please refer for section 15 of SDS for regulatory information.

- NSF Certified

CONTACT INFORMATION

For samples, product information and/or technical service, please contact Vanderbilt Chemicals, LLC or the Vanderbilt representative in your area:

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