**EcoLine® CLP**

**FEATURES**

- USDA Certified Biobased Product
- Contains 89% biobased content
- Environmentally friendly and biodegradable
- Replaces hazardous mineral oils and other hydrocarbon based solvents
- Extends the life of machinery parts by reducing friction and wear
- Excellent penetrant
- Provides multi-metal protection
- Cleans and lubricates
- Loosens frozen and rusted parts
- Non-flammable and non-toxic
- Can be used as a mold release
- Freeze stable
- Easy to remove if needed with common detergents

**TYPICAL APPLICATIONS**

- In-plant machining
- Bar and chain oil
- Flange lubricant
- Biodegradable and preservative oil for machinery
- Locks and hinges
- Nuts and bolts
- Office machinery
- Penetrating oil/lubricant

**METALS PROTECTED**

- Carbon steel
- Galvanized steel
- Stainless steel
- Aluminum and alloys

**PRODUCT DESCRIPTION**

EcoLine® CLP is a “green” version of a multifunctional penetrant/lubricant, which provides the following properties:

- Lubrication
- Penetration
- Corrosion protection in humid and harsh environments
- Cleaning

This product is designed for industrial, shop, and home use. EcoLine® CLP is perfect for indoor and outdoor application.

This EcoLine® product is based on a combination of canola oil and canola methyl ester as a carrier. Being 89% biobased, this product provides excellent lubricity and biodegradability. EcoLine® CLP is environmentally friendly and leaves behind a very persistent layer that protects against corrosion. EcoLine® CLP has been certified as a USDA Certified Biobased Product (www.biopreferred.gov)
TYPICAL PROPERTIES

Appearance   Clear amber/brown liquid
Corrosion Resistance   Up to 24 months
Non-volatile Content   99-100%
Density   7.6-7.7 lb/gal (0.91-0.92 kg/l)
Kinematic viscosity   12.54 centistokes (mm²/s) (at 40°C)

TEST RESULTS

Corrosion Tests

<table>
<thead>
<tr>
<th>Name</th>
<th>ASTM D-1748 (Humidity Chamber)</th>
<th>ASTM B-117 (Salt Spray Chamber)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EcoLine® CLP</td>
<td>&gt;600 hours</td>
<td>65 hours</td>
</tr>
</tbody>
</table>

Lubricating Properties

<table>
<thead>
<tr>
<th>Tests</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM D-4172 (Four Ball Wear)</td>
<td>0.69 mm scar diameter</td>
</tr>
<tr>
<td>ASTM D-3233 (Falex Pin &amp; Vee)</td>
<td>1,349 lbs.</td>
</tr>
<tr>
<td>ASTM D-5620A (Evaluating Thin Film Fluid Lubricants)</td>
<td>Average 42 minutes</td>
</tr>
</tbody>
</table>

Measuring of the Torque of Loosening Rusted Nuts

<table>
<thead>
<tr>
<th>Lubricant used</th>
<th>Torque to loosen, psi</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>&gt;250</td>
<td>Not able to unscrew</td>
</tr>
<tr>
<td>EcoLine® CLP*</td>
<td>171</td>
<td>Able to unscrew</td>
</tr>
<tr>
<td>Conventional penetrant/lubricant widely used</td>
<td>236</td>
<td>Able to unscrew</td>
</tr>
</tbody>
</table>

*Note: EcoLine® CLP cleans rust during applications

STORAGE AND PACKAGING

EcoLine® CLP is packaged in 16 oz. (455 ml) spray bottles, 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes and bulk. The product should be sealed before storage. The shelf life of EcoLine® CLP is up to 24 months.

Note: Please see the Safety Data Sheet (SDS) for proper handling of product.

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