Lithium Grease
Hydrophobic, Corrosion Inhibiting Lubricant
8461 Technical Data Sheet

Description
The 8461 Lithium Grease is a multi-purpose lubricant that provides long superior lubrication and protection against corrosion. As a lubricant, it reduces metal-to-metal friction and wear while retaining it consistency over a wide temperature range. As a corrosion inhibitor, it prevents water and external contaminants from oxidizing metals.

Features and Benefits
- Corrosion inhibitor
- Heat resistant
- Easy to use and apply: Smooth buttery cream texture
- Long lasting

Usage Parameters

<table>
<thead>
<tr>
<th>Properties</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shelf Life a)</td>
<td>5 y</td>
</tr>
</tbody>
</table>

a) Reported shelf life assumes room temperature storage and unopened container.

Temperature Ranges

<table>
<thead>
<tr>
<th>Properties</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant Service Temperature</td>
<td>-40 to 180 °C [-40 to 356 °F]</td>
</tr>
<tr>
<td>Storage Temperature Limits</td>
<td>25 ±5 °C [77 ±9 °F]</td>
</tr>
</tbody>
</table>

Principal Components

Name                        | CAS Number |
----------------------------|------------|
Lithium Soap                | 7620-77-1  |
Mineral Oils                | 64741-88-4 |
Zinc Oxide                  | 1314-13-2  |

Properties

<table>
<thead>
<tr>
<th>Physical Properties</th>
<th>Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Visual</td>
<td>White</td>
</tr>
<tr>
<td>Odor</td>
<td>ASTM D 1475</td>
<td>Odorless</td>
</tr>
<tr>
<td>Density @25 °C [77 °F]</td>
<td>0.89 g/mL</td>
<td>185 °C [365 °F]</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Cleveland Closed Cup</td>
<td>Cream, semi-solid</td>
</tr>
<tr>
<td>Flash Point</td>
<td></td>
<td>≥371 °C [≥700 °F]</td>
</tr>
<tr>
<td>Boiling Point</td>
<td></td>
<td>210 °C [410 °F]</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Corrosion Resistant</td>
<td></td>
<td>Insoluble</td>
</tr>
<tr>
<td>Solubility</td>
<td></td>
<td>Lithium Soap</td>
</tr>
<tr>
<td>Filler</td>
<td></td>
<td>Mineral oils</td>
</tr>
<tr>
<td>Base Material</td>
<td></td>
<td>Insulator</td>
</tr>
<tr>
<td>Electrical Class</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Compatibility

Chemical—it is compatible with a wide variety of metal, rubber, and plastic substances.

Storage

Store within 25 ±5 °C [77 ±9 °F] in dry area.

Health, Safety, and Environmental Awareness

Please see the 8461 Safety Data Sheet (SDS) for greater details on transportation, storage, handling and other security guidelines.

Environmental Impact: The VOC (Volatile Organic Compound) content is 0% by WHMIS and European standards.

Health and Safety: The 8461 may cause a mild skin or eye irritation. Wear safety glasses and disposable gloves to avoid exposures.

HMIS® RATING

<table>
<thead>
<tr>
<th>HEALTH:</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAMMABILITY:</td>
<td>1</td>
</tr>
<tr>
<td>PHYSICAL HAZARD:</td>
<td>0</td>
</tr>
<tr>
<td>PERSONAL PROTECTION:</td>
<td></td>
</tr>
</tbody>
</table>

NFPA® 704 CODES

1 1 0

Approximate HMIS and NFPA Risk Ratings Legend:
0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

Application Instructions

The performance of the 8461 Lithium Grease depends on surface preparation. Improperly prepared contact surfaces can degrade the oxidation protection, dielectric properties, and lubrication characteristics by trapping contaminants between the surface and the grease. The thickness and coverage should be adjusted to meet your needs.

Prerequisites

- (Optional) Wear gloves to avoid contaminating the surface and to avoid possible skin irritation.
- (see 8461 SDS).
- Clean and dry the surface of the substrate to remove other oils, greases, dust, water, solvents, or any other contaminants.
  Recommendations: Use MG 824 Isopropyl Alcohol or MG 401B Nu-trol Control Cleaner

Equipment

- Lint free cloth (for cleaning contact and for wiping excess residue)
- Spatula or stick application tools (sized appropriately for your application)
- Isopropyl alcohol or other residue-free organic solvents
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To apply the grease
1. Wipe the contact with a lint-free cloth.
2. Clean the contacts with isopropyl alcohol or other non-oil based cleaner.
3. Once dry, apply the paste with the application tool to the contact, ensuring adequate coverage and desired thickness.

Packaging and Supporting Products

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Packaging</th>
<th>Net Volume</th>
<th>Net Weight</th>
<th>Packaging Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>8461-85ML</td>
<td>Tube</td>
<td>85 mL</td>
<td>2.9 fl oz</td>
<td>0.9 kg 2.0 lb</td>
</tr>
<tr>
<td>8461-1P</td>
<td>Tub</td>
<td>487 mL</td>
<td>1.0 pt</td>
<td>0.9 kg 2.0 lb</td>
</tr>
</tbody>
</table>

Contact MG Chemicals if custom packaging or sizes are required

Supporting Products
- Isopropyl Alcohol: Cat. No.824

Technical Support
Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at www.mgchemicals.com.
Email: support@mgchemicals.com
Phone: +(1) 800-340-0772 (Canada, Mexico & USA)
+(1) 905-331-1396 (International)
Fax: +(1) 905-331-2862 or +(1) 800-340-0773

Mailing address: Manufacturing & Support
1210 Corporate Drive
Burlington, Ontario, Canada
L7L 5R6

Head Office
9347–193rd Street
Surrey, British Columbia, Canada
V4N 4E7

Warranty
M.G. Chemicals Ltd. warranties this product for 12 months from the date of purchase by the end user. M.G. Chemicals Ltd. makes no claims as to shelf life of this product for the warranty. The liability of M.G. Chemicals Ltd. whether based on its warranty, contracts, or otherwise shall in no case include incidental or consequential damage.

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