ECO-FRIENDLY LUBRICANTS WITH THE POWER TO PROTECT YOUR MACHINERY, AND THE ENVIRONMENT

ZF SERIES HYDRAULIC OILS
MARINE SAFE SERIES HYDRAULIC OILS
BIO-BASED SERIES HYDRAULIC OILS
UTF-BIOBASED/GREEN TRACTOR FLUID
BIODEGRADABLE PENETRATING OIL
BIO-SYNXTREME HF SERIES HYDRAULIC FLUIDS
SYNXTREME AC SERIES COMPRESSOR FLUIDS
SYNCOOL & SYNCOOL FG COMPRESSOR FLUIDS
PGO SERIES GEAR OILS
BIOBASED EP-2 GREASE
Lubriplate’s environmentally responsible lubricants have been formulated to help reduce their impact on our environment without sacrificing lubricant performance. Their use can also help our customers comply with the ever increasing environmental regulations for equipment operating in environmentally sensitive areas. This chart lists some of the industry’s standards and terms used for environmentally responsible lubricants.

**Terminology** | **Test Method** | **Requirements / Results**
--- | --- | ---
Ultimate Biodegradation (Pw1) | ASTM D-5864 | Min 60% converted to CO2 in 28 days or less
Readily Biodegradable (Pw1) | OECD 301B | Min 60% converted to CO2 in 28 days or less
Inherently Biodegradable (Pw2) (Pw3) (Pw4) | ASTM D-5864 OECD 301B | Min. 60% (Pw2), 40% (Pw3), 20-39% (Pw4) converted to CO2 in 84 days
Non/Low Acute Toxicity LC50 | US EPA LC50 | Pass

**ZF Series Hydraulic Fluids: Heavy-Duty, Zinc-Free, Extended Life, Hydraulic Fluids.**

These heavy-duty, high performance fluids were designed to perform in the most demanding hydraulic applications. They can withstand elevated temperatures and high pressures over extended periods thus providing long service life and extended fluid change intervals. They meet the service requirements of Vickers (Eaton) M-2950-S, I-286-S, General Motors LS-2, Bosch Rexroth RE 90 220, Denison HF-0, HF-1, HF-2 and Cincinnati Milacron P-68, P-69 and P-70. Lubriplate ZF Series Hydraulic Fluids are free of zinc or silicone compounds.

**Marine-Safe Hydraulic Oils: Non-Toxic to Aquatic Life (LC50).**

Formulated a zinc free anti-wear additive package, these high-performance hydraulic fluids meet or exceed the performance requirements of most types of hydraulic equipment while providing an additional level of environmental safety. Lubriplate Marine-Safe Hydraulic Oils are non-toxic to aquatic life, exceeding U.S. EPA LC50 and U.S. Fish and Wildlife requirements. They meet the service requirements of Vickers, Racine, Denison HF-0, HF-2 and Cincinnati Milacron P-68, P-69 and P-70.

<table>
<thead>
<tr>
<th><strong>LUBRIPLATE PRODUCT</strong></th>
<th><strong>PRODUCT PART NO.</strong></th>
<th><strong>ISO GRADE</strong></th>
<th><strong>AGMA NO.</strong></th>
<th><strong>SAE GEAR OIL NO.</strong></th>
<th><strong>SAE NO.</strong></th>
<th><strong>VISCOSITY CST @40˚C / 100˚C</strong></th>
<th><strong>VISCOSITY INDEX</strong></th>
<th><strong>FLASH POINT</strong></th>
<th><strong>FIRE POINT</strong></th>
<th><strong>POUR POINT</strong></th>
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<tbody>
<tr>
<td>ZF 32</td>
<td>L0948-</td>
<td>32</td>
<td>-</td>
<td>-</td>
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<td>35 / 5</td>
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<td>46</td>
<td>1</td>
<td>75W</td>
<td>20</td>
<td>46 / 6</td>
<td>117</td>
<td>470˚F / 243˚C</td>
<td>510˚F / 266˚C</td>
<td>-35˚F / -37˚C</td>
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<tr>
<td>ZF 68</td>
<td>L0950-</td>
<td>68</td>
<td>2</td>
<td>80W</td>
<td>20</td>
<td>70 / 8</td>
<td>106</td>
<td>475˚F / 246˚C</td>
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<td>-20˚F / -29˚C</td>
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<td>L0953-</td>
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<td>3</td>
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<td>30</td>
<td>101 / 11</td>
<td>97</td>
<td>475˚F / 246˚C</td>
<td>545˚F / 285˚C</td>
<td>-10˚F / -23˚C</td>
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*ZF Series Fluids are available in 5 Gallon Pails (Package Pt. No. Suffix -060) and 55 Gallon Drums (Package Pt. No. Suffix -062).

| **Marine-Safe 32** | L0822- | 32 | - | - | 10 | 33 / 6 | 110 | 395˚F / 202˚C | 455˚F / 235˚C | -45˚F / -43˚C |
| **Marine-Safe 46** | L0823- | 46 | 1 | 75W | 20 | 44 / 7 | 108 | 425˚F / 218˚C | 470˚F / 243˚C | -35˚F / -37˚C |
| **Marine-Safe 68** | L0824- | 68 | 2 | 80W | 20 | 68 / 9 | 104 | 445˚F / 229˚C | 520˚F / 271˚C | -20˚F / -29˚C |

*Marine-Safe 32 through 68 is available in 5 Gallon Pails (Package Pt. No. Suffix -060) and 55 Gallon Drums (Package Pt. No. Suffix -062).

**Bio-Based Series Hydraulic Oils:** Ultimately Biodegradable (Pw1), Vegetable-Based Oils.

For use in hydraulic systems where biodegradability properties are required. A zinc-free additive system delivers exceptional anti-wear, anti-rust, anti-foam and demulsibility properties. They meet ASTM D-5864 (Pw1).

**UTF-Bio-Based/Green:** Ultimately Biodegradable (Pw1), Vegetable-Based, Universal Tractor Fluid.

An ultimately biodegradable (Pw1), vegetable-based fluid, designed for use in agricultural, construction/industrial equipment where UTF type fluids are required. Meets the requirements of API GL-4 and most OEMs including: John Deere’s Hygard, J20-C, J14A, Quantrol™ J20D, Allison C-3 and C-4, Cat TO-2, Case, Ford, Massey-Ferguson White Farm, Kubota, Steiger and others.

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<tr>
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<th><strong>PRODUCT PART NO.</strong></th>
<th><strong>ISO GRADE</strong></th>
<th><strong>AGMA NO.</strong></th>
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<th><strong>VISCOSITY INDEX</strong></th>
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<th><strong>FIRE POINT</strong></th>
<th><strong>POUR POINT</strong></th>
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<td>44 / 10</td>
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<td>80W</td>
<td>20</td>
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<td>525˚F / 274˚C</td>
<td>-31˚F / -35˚C</td>
</tr>
</tbody>
</table>


**UTF-Bio-Based/Green** | L1072- | 46 | 1 | 75W | 20 | 48 / 10 | 210 | 484˚F / 251˚C | -38˚F / -39˚C |

*UTF-Bio-Based/Green is available in 5 Gallon Pails (Package Pt. No. Suffix -060) and 55 Gallon Drums (Package Pt. No. Suffix -062).*

**Biodegradable Penetrating Oil Multi-Purpose Lubricating Fluid:**

ECO-Friendly, Biodegradable, Vegetable-Based, Multi-Purpose Spray Lubricant.

An environmentally friendly, biodegradable, bio-based, lubricating oil for general lubrication of hinges, locks, latches, slides, chains, cables or anywhere metal contacts metal. Ideal for cars, boats, bicycles, garden equipment, guns, tools, office equipment, garage doors, farm equipment and golf courses. Provides a long lasting protective film that prevents friction, wear, rust and corrosion. Excellent moisture displacement properties. Available in 11 OZ. / 312 g. spray can, Part No. L0721-063.
BIO-SYNXTREME HF Series: Polyalkylene Glycol (PAG)-Based, Biodegradable (Pw1), Synthetic Hydraulic Fluids.
These high performance, zinc-free hydraulic fluids are designed for demanding industrial and marine (Vessel General Permit) applications requiring environmental sensitivity, fire resistance, and excellent anti-wear properties over wide temperature ranges. They are Polyalkylene Glycol (PAG) based fluids, that are anhydrous (water-free). LUBRIPLATE BIO-SYNXTREME Hydraulic Fluids do not break down to form sludge and they do not hydrolyze in the presence of water. Non-Sheening – Does not cause a sheen or discoloration on the surface of the water or adjoining shorelines. “Practically Non-Toxic” to fish and other aquatic wildlife according to the U.S. Fish and Wildlife Service hazard classification. They meet U.S. EPA Vessel General Permit (VGP) Requirements. Not compatible with hydrocarbon-based hydraulic fluids. As with any fluid conversion, recognized industry procedures including system cleanup and flushing should be followed.

SYNXTREME AC Series: Polyolester (POE)-Based, 100% Synthetic Compressor Fluids.
These state-of-the-art fluids are designed for maximum performance in rotary screw and vane type air compressors. Special advanced POE base esters combined with a multi-charged additive system produce unmatched oxidative stability, enhanced hydrolytic stability and excellent wear and corrosion protection. Potential for fluid drain intervals of +10,000 hours.

SYNCOOL & SYNCOOL FG (H1 Food Grade): Biodegradable, Polyglycolester (PGE)-Based Compressor Fluids.
These high-performance, biodegradable, polyglycol/ester (PGE)-based, synthetic air compressor fluids were developed to meet the needs of most rotary screw and rotary vane air compressors where high operating temperatures are present and environmental issues are a concern. They are readily biodegradable (Meets OECD criteria) >70% biodegradation (Pw1). Excellent thermal and oxidation stability helps eliminate harmful deposits and extend drain intervals. SYNCOOL FG is NSF H1 Registered and NSF/ISO 21469 Certified Food Machinery Grade.

PGO Series: ECO-Responsible, Polyalkylene Glycol (PAG)-Based, Synthetic Gear Oils.
These 100% polyalkylene glycol (PAG) fluids are designed for gearboxes, bearings and chains operating in the most demanding conditions. They provide outstanding thermal stability, excellent extreme pressure and anti-wear performance and protection against micropitting. They exceed 13 stages of the FZG test. LUBRIPLATE PGO Fluids are free of zinc and other additives that may be undesirable in environmentally sensitive areas. They offer long service life and work well over extended fluid change intervals which conserves resources. Inherently biodegradable (ASTM D-5864/OECD 301B).

**BIOBASED EP-2 Grease** is available in Cartridges (Package Pt. No. Suffix -098) and 120 lb Lined 1/4 Drums (Package Pt. No. Suffix -039).
**SYNCOOL & SYNCOOL FG Fluids** are available in 5 Gallon Pails (Package Pt. No. Suffix -060) and 55 Gallon Drums (Package Pt. No. Suffix -062).
**SYNXTREME AC Series Fluids** are available in 5 Gallon Pails (Package Pt. No. Suffix -060) and 55 Gallon Drums (Package Pt. No. Suffix -062).
**BIO-SYNXTREME HF Series Fluids** are available in 5 Gallon Pails (Package Pt. No. Suffix -060) and 55 Gallon Drums (Package Pt. No. Suffix -062).

**ECO-Responsible Grease**

**BIOBASED EP-2 Grease:** Ultimately Biodegradable (Pw1), Environmentally Acceptable, Bio-based Grease.