

# **Bio-Food Grade Hydraulic Fluid**

(ISO 15 & 22)

Bio-Food Grade™ Hydraulic Fluids are readily biodegradable, biosynthetic-blend lubricants formulated for use in food and water processing applications requiring anti-wear performance and food-grade compliance. These lubricants provide excellent oxidation stability, rust protection, anti-foam performance, and water demulsibility. Utilizing patented Stabilized™ technology, the fluids achieve a super high viscosity index for enhanced shear stability, low volatility, and improved safety in high-heat environments. Manufactured under kosher supervision, these fluids contain no animal byproducts and are formulated for environmentally sensitive areas such as food plants, marine, and agricultural settings.

#### **Benefits**

- Readily biodegradable, environmentally non-toxic, not bioaccumulative
- NSF H1 for incidental food contact
- GRAS-compliant ingredients suitable for food processing environments
- High viscosity index enhances energy efficiency and thermal stability
- Excellent oxidation resistance and rust protection in fresh and sea water
- Superior anti-wear protection, compatible with vane, piston, and gear-type pumps
- Zinc-free, environmentally friendly additive system
- Safe for worker exposure, low VOC, renewable resource-based
- Manufactured under kosher supervision with no animal byproducts
- Meets USDA BioPreferred standards

### **Application / New Filling**

- Recommended for use in food-grade environments with incidental contact
- Suitable for hydraulic systems, gear drives, air tools, water pumps, bearings, gearhead motors, roller chains, and general machinery lubrication
- Can also be used in gear units where non-EP R&O fluids are specified (e.g., AFNOR NFE 48-600 HL, DIN 51524 Part 1, Denison HF-1)
  - For full conversion procedures, contact Renewable Lubricants, Inc.

## **Specifications and Approvals**

USDA BioPreferred Certified

- NSF H1 for incidental food contact
- Kosher certified, no animal byproducts
- Meets Vickers M-2950-S, I-286-S (V-104C), Rexroth, US Steel 126, 136, 127
- Meets DIN 51524 Part 2
- Meets ashless GL-1 and GL-2 gear oil requirements
- Biodegradable and compliant with EPA, OSHA, and ISO 14000 environmental standards

# **Typical Data**

ISO grade	15	22
ASTM Grade	75	100
Specific Gravity @60°F. (D287)	.86	.86
VISCOSITIES:		
@100°C., cSt. (D-445)	4.09	5.1
@40°C., cSt. (D-445)	15.6	21.1
Viscosity Index (D-2270)	175	184
Flash Point, COC, <sup>o</sup> C (D-92)	185	225
Pour Point, <sup>o</sup> C (D-97)	-48	-44
Copper Corrosion 3hr @ 100°C (D-130)	1A	1A
Acid Number (D-974)	1.1	1.1
4-Ball Wear, mm (D-4172)	.45	.45
FZG Test (DIN 51354)	10	10
Demulsibility (D-2711)	40/40/0	40/40/0
Foam Sequence I, II, III (D-892)	0 Foam	0 Foam
Rust Prevention (D-665 A & B)	Pass	Pass
Rotary Bomb Oxidation Stability (D-2272), Minutes	250	250
RLI Product Number	87104	87110

F.O.B: Hartville, Ohio

Availability: 1 Gallon, 5 Gallon Pail, 55 Gal Drum, Totes, Bulk

