

# Product Information



## H1 Quinplex Syn FG Gear Oil

(4150, 4220, 4320, 4460)

### *Synthetic Food Grade Oil Protects Gears in Extreme High and Low Temperatures*

Recommended for a variety of gearboxes and other critical applications in food and beverage manufacturing facilities, H1 Quinplex® Syn FG Gear Oil (4150-4460) is NSF H1 registered for incidental food contact and was formulated to withstand severe loading conditions and prevent rust and corrosion. H1 Quinplex Syn FG Gear Oil contains 100 percent synthetic base stock to provide superior protection in extreme high and low temperatures. It also offers great seal compatibility and excellent nonfoaming qualities. Its anti-wear capability differentiates it from many other white oils on the market. To ensure good metal adhesion, it contains a shear stable polymeric tackifier system including Quinplex®, LE's proprietary impact-resistant additive. H1 Quinplex Syn FG Gear Oil helps factories avoid unplanned downtime and expensive repairs by providing long-lasting, reliable protection that keeps critical equipment running in extreme temperatures.



### **Beneficial Qualities**

#### **Food Grade**

- Registered NSF H1 for incidental food contact
- Certified Kosher Pareve
- Certified Halal by IFANCA
- Is non-staining, low-odor, and translucent

#### **100% Synthetic Base Oil**

- Protects from extreme high & low temperatures
- Stays in viscosity
- Has low pour point

#### **Protection**

- Includes superior anti-wear additive package
- Prevents rust and corrosion
- Readily separates from water; excellent demulsibility

#### **Reliability**

- Has excellent load-carrying capability
- Is compatible with seals
- Has nonfoaming characteristics
- Is tacky and clings to metal surfaces

### **Proprietary Additive**

LE's proprietary additives are used exclusively in LE lubricants. H1 Quinplex Syn FG Gear Oil contains **Quinplex®**, which contributes to outstanding water resistance and tackiness. It helps to form a barrier against corrosion.



**Asset Reliability Solutions™**

[www.le-bv.nl](http://www.le-bv.nl)

T: +31 (0)78 - 654 99 66



## H1 Quinplex Syn FG Gear Oil

	<u>4150</u>	<u>4220</u>	<u>4320</u>	<u>4460</u>
<b>Color</b>	Amber	Amber	Amber	Amber
<b>ISO VG</b>	150	220	320	460
<b>AGMA Grade</b>	4 EP	5 EP	6 EP	7 EP
<b>Relative Density @ 60°F/60°F, ASTM D1298</b>	0.855	0.856	0.863	0.858
<b>Viscosity @ 100°C, cSt, ASTM D445</b>	20.27	27.12	36.12	48.64
<b>Viscosity @ 40°C, cSt, ASTM D445</b>	161.3	238.2	341.1	488.2
<b>Viscosity Index ASTM D2270</b>	146	147	152	156
<b>Flash Point °C (°F) (COC), ASTM D92</b>	>240 (>464)	>240 (>464)	>240 (>464)	>240 (>464)
<b>Pour Point °C (°F), ASTM D97</b>	-36 (-33)	-33 (-27)	-30 (-22)	-30 (-22)
<b>Rust Test 4 hrs @ 60°C, Sea H2O, ASTM D665B</b>	Pass	Pass	Pass	Pass
<b>Copper Corrosion 3 hrs @ 100°C, ASTM D130</b>	1b	1b	1b	1b
<b>Copper Corrosion 3 hrs @ 121°C, ASTM D130</b>	1b	1b	1b	1b
<b>FZG Fail Stage, DIN ISO 51354</b>	>12	>12	>12	>12
<b>Four-Ball Wear @ 75°C, 1200 rpm, 40 kgf, 60 minutes, mm wear, ASTM D4172</b>	0.30	0.30	0.30	0.30
<b>Emulsion Characteristics @ 82°C, oil-water-emulsion/minutes, ASTM D1401</b>	40-40-0/10	40-40-0/10	40-40-0/10	40-40-0/10
<b>Foaming Characteristics @ 24°C/93.5°C/24°C, 3 sequences, ml of foam/time to break, ASTM D892</b>	0/0; 0/0; 0/0	0/0; 0/0; 0/0	0/0; 0/0; 0/0	0/0; 0/0; 0/0

### Available Grades

- 150 ISO / 4 EP (4150)
- 220 ISO / 5 EP (4220)
- 320 ISO / 6 EP (4320)
- 460 ISO / 7 EP (4460)

### 4220 only:

- Angelus Sanitary Can Machine
- Lanham-Proofer Chain

### Performance Requirements Met or Exceeded

#### All grades:

- ANSI/AGMA 9005-D94 S
- ANSI/AGMA 9005-E02 EP
- Halal (certified by IFANCA)
- Kosher Pareve
- NSF H1

### Typical Applications

- Equipment where incidental food contact may occur, including:
  - o Bearings
  - o Gearboxes
  - o Open gears
  - o Slides, guides, chains, conveyor chains
  - o Valves