



## H1 Quinplex® Synthetic Food Grade Oil (4032 & 4046)

***Food Grade Lubricant Clings to Equipment, Providing Reliable Water-Resistant Protection from Oxidation, Rust & Wear***

H1 Quinplex Synthetic Food Grade Oils (4032 and 4046, ISO 32 and 46, respectively) are NSF H1 registered, Kosher Pareve and Halal certified lubricants designed to use in food processing and other sensitive environments where superior anti-wear, rust- and oxidation-resistant properties are required. Featuring 100% synthetic base oil, H1 Quinplex 4032 and 4046 have excellent load-carrying abilities, can be used in low-temperature applications, and contain Quinplex®, LE's proprietary impact-resistant additive.



### Beneficial Qualities

#### ***Food Grade***

- Is a pure, nonstaining, odorless, tasteless, translucent and nonirritating lubricant
- Can be used with confidence where incidental food contact or staining can occur
- Registered NSF H1
- Certified Kosher Pareve
- Certified Halal by IFANCA

#### ***Superior Protection***

- Provides margin of safety with superior anti-wear properties
- Outperforms many white oils that are unable to offer this protection because they do not include anti-wear additives

- Protects from rust and corrosion
- Provides superior protection, even in extremely low temperatures

#### ***Reliable Performance***

- Extends equipment life and decreases downtime
  - o Crucial with high capital, continuous process equipment
  - o Downtime costs can be devastating when production must be delayed or cancelled
- Offers excellent load-carrying capability
- Is compatible with seals (including Nitrile and Viton)

### Proprietary Additive

LE's proprietary additives are used exclusively in LE lubricants. H1 Quinplex Synthetic Food Grade Oil contains Quinplex.

**Quinplex®** impact-resistant additive contributes to outstanding water resistance, tackiness and enhanced mechanical stability, and helps to form a barrier against corrosion.



## H1 Quinplex® Synthetic Food Grade Oil

	<u>4032</u>	<u>4046</u>
<b>Color</b>	Water white	Water white
<b>ISO VG</b>	32	46
<b>Relative Density @ 60°F/60°F, ASTM D1298</b>	0.831	0.835
<b>Viscosity @ 100°C, cSt, ASTM D445</b>	6.07	7.73
<b>Viscosity @ 40°C, cSt, ASTM D445</b>	32.08	46.23
<b>Viscosity Index ASTM D2270</b>	138	135
<b>Flash Point °C (°F), (COC), ASTM D92</b>	232 (450)	276 (530)
<b>Pour Point °C (°F), ASTM D97</b>	≤ -60 (≤ -76)	≤ -54 (≤ -65)
<b>Rust Test 4 hrs @ 60°C, DI H<sub>2</sub>O, ASTM D665A</b>	Pass	Pass
<b>Copper Corrosion 3 hrs @ 100°C, ASTM D130</b>	1b	1b
<b>Oxidation by RPVOT @ 150°C, minutes, ASTM D2272</b>	1,000	1,000
<b>Four-Ball Wear @ 75°C, 1,200 rpm, 40 kgf, 60 minutes, mm wear, ASTM D4172</b>	0.39	0.39
<b>Emulsion Characteristics @ 54°C, oil-water-emulsion/minutes, ASTM D1401</b>	40-40-0/5	40-40-0/5
<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
<b>Vickers Vane Pump Test total weight lost, mg, ASTM D2882</b>	—	15.9

### Performance Requirements Met or Exceeded

- NSF H1
- Halal (certified by IFANCA)
- Kosher Pareve
- Angelus Sanitary Can Machine

### Typical Applications

- Bearings, bushings, slides, chains, compressors (including rotary screw air), vacuum pumps and hydraulics used in:
  - o Animal feed preparation
  - o Aluminum/metallic foil and package manufacturing
  - o Food processing
  - o Paper-making machinery
  - o Textile machinery
- Extreme cold conditions such as blast freezers and cold rooms



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