

# Product Information



## Lubricants for Food, Beverage & Pharmaceutical Industries

### LE's H1 & H2 Products Provide Solutions for Specific Needs

Lubrication Engineers manufactures a wide variety of high-performance oils and greases specially formulated to meet the needs of food, beverage and pharmaceutical operations. LE knows about the severe operating conditions and expensive machinery at these companies. That's why our H1 and H2 products include solutions for heat, cold, moisture, rust and oxidation (R&O), wear, foaming, staining, odor, frequent visual inspections and much more. The following lubricants comprise most of LE's business with food, beverage and pharmaceutical operations.

#### NSF H1 Lubricants

*Cleared for Incidental Food Contact*

Lubricants that are NSF H1 certified have been cleared for use in USDA-inspected food processing plants and can be used where incidental food contact may occur. Uses for an H1 lubricant include protective antirust film, release agent on gaskets or seals of tank closures, and lubricant for machine parts and equipment. The amount of lubricant used should be the smallest needed to accomplish the desired effect. All LE H1 lubricants are certified Halal by IFANCA, and – except for H1 Machine Oil (6751) – are also certified Kosher Pareve by the Orthodox Union.

#### USDA H2 Lubricants

*Recommended for Nonfood Contact Areas*

H2 lubricants meet USDA H2 criteria for nonfood contact areas of food processing plants. These are lubricant applications with no possibility of food contact and are usually below the production line. Most LE lubricants meet USDA H2 criteria. See pages 3 and 4 of this brochure for those USDA H2 lubricants used most frequently by LE's food and beverage customers.



### NSF H1, Kosher Pareve, Halal .....



#### H1 Quinplex® White Oil (4010, 4020, 4030 & 4040)

*ISO VG 46, 68, 100 & 150*

*Use for bearings, bushings, slides, guides, chains, compressors, valves, vacuum pumps and hydraulics where incidental food contact may occur.*

- Provides anti-wear protection, including R&O resistance
- Will not foam
- Will not cause staining

#### H1 Quinplex Food Machinery Lubricant (4025-4022)

*NLGI 2, 1, 0 & 00; Aerosol version of 4025 available*

*Use for blenders, bottlers, conveyors, cookers, extractors, fillers, mixers, slicers, wrappers and other grease-lubricated machinery where incidental food contact may occur.*

- Will not wash out, pound out or melt and run, even under severe conditions
- Provides EP protection
- Inhibits rust
- Will not cause staining
- White, heavy-duty, semi-synthetic and mechanically stable





## **NSF H1, Kosher Pareve, Halal (continued) . . . . .**



### **H1 Quinplex Synthetic Food Grade Oil (4032, 4046 & 4068)** *ISO VG 32, 46 & 68*

*Use for bearings, bushings, chains, compressors, guides, hydraulics, slides, valves, and vacuum pumps where incidental food contact may occur; works great for rotary screw compressors.*

- Provides anti-wear protection, including R&O resistance
- Exhibits superior low-temperature performance
- Has no adverse seal compatibility problems

### **H1 Quinplex® High Temperature Lubricant (4051)** *NLGI 1-1/2*

*Use for high-temperature applications where an NSF H1 registered food grade product should be used, including: pellet mills, kilns, exhaust fans, oven conveyors, and plastic blow molding machines.*

- Won't melt or run out of bearings
- Resists oxidation and vaporization
- Exhibits excellent mechanical stability
- Reduces wear by minimizing friction
- Protects from rust and corrosion
- Forms a barrier that repels water caused by steam
- Offers easy pumpability in central lubrication systems
- Extends lubrication intervals and reduces consumption

### **H1 Quinplex Penetrating Oil & Lubricant (4058-4059)**

*Use in any area where a penetrating and lubricating oil suitable for incidental food contact is required, including bottling and canning equipment, slides, cams, chains and other machine surfaces.*

- Provides anti-wear protection, including R&O resistance
- Quickly frees frozen parts and dissolves rust and residue
- Penetrates and leaves heavy film for lubrication and rust protection
- 4059 is aerosol version



### **Ovenworx® H1 Syn Chain Lubricant (4061)** *ISO VG 220*

*Use for high-temperature oven chains in industrial process and food processing ovens, including with automatic lube systems.*

- Fully synthetic formula with high-viscosity base fluid
- Features oxidation stability and reduced volatility at high temps
- Has broad temperature range and high flash point
- Lubricates chains up to 300°C (572°F)
- Penetrates all moving parts, ensuring smooth operation
- Seals out moisture
- Contains no solid additives to fall out of suspension
- Can be applied to hot oven chains without interrupting operation
- Leaves no residue
- Low-staining, odor-neutral

### **H1 Quincal™ Syn FG Grease (4072-4070)** *NLGI 2, 1 & 0*

*Use in variety of food processing applications, including blenders, cookers, filling machines, canning machines, bottling machines, and packaging equipment.*

- Features synthetic base fluid
- Provides long-lasting reliable protection
- Performs effectively in severe conditions
- Ensures very low oil separation
- Prevents rust and corrosion
- Protects against wear, metal-to-metal contact and scoring
- Resists oxidation and water contamination
- Stays in contact zone, even in high-moisture environments
- Performs well in a broad temperature range
- Maintains consistency after repeated heating and cooling



## NSF H1, Kosher Pareve, Halal (continued) .....



### H1 Quinplex White Gear Lubricant (4090, 4140 & 4250)

ISO VG 220, 460 & 680

Use for equipment where incidental food contact may occur, including bearings, conveyor chains, gearboxes, guides, open gears, valves, and worm gear applications; works well for heavily loaded gear applications.

- Provides anti-wear protection, including R&O resistance
- Extremely pure, translucent and non-irritating; will not cause staining
- Will not foam

### H1 White Utility Oil (4201 & 4204)

ISO VG 15 & 46

Use for general lubrication applications where incidental food contact may occur; recommended for rust prevention after washdown.

- Made with USP grade mineral oil
- Contains no additives
- Will not cause staining

### H1 Quinplex Syn FG Gear Oil (4150, 4220, 4320 & 4460)

ISO VG 150, 220, 320 & 460

Equipment where incidental food contact may occur, including: bearings, gearboxes, open gears, slides, guides, chains, conveyor chains and valves.

- Protects from extreme high & low temperatures
- Includes superior anti-wear additives
- Prevents rust and corrosion
- Readily separates from water
- Is tacky and clings to metal surfaces
- Is non-staining, low-odor and translucent

### H1 Silicone Spray (804)

Aerosol

Use for general lubrication applications where incidental food contact may occur, such as slides, chutes, nylon chains and other packaging equipment.

- Exhibits low odor
- Will not cause staining

## NSF H1, Halal



This is LE's only H1 lubricant that is non-Kosher-Pareve.

### H1 Machine Oil (6751)

SAE 40

Use for Manzel lubrication system of Angelus seamers.

- Provides anti-wear protection, including R&O resistance
- Resists foaming
- Contains ashless additive that completely emulsifies water with the oil

## USDA H2 Oven Chain Lubricants .....

### Almasol® Oven Chain Lubricant (2710)

Use for bakery and tortilla oven chains and other chain applications where solid lubricants and cleanliness are required.

- Effectively lubricates up to 482°C (900°F)
- Resists high temperatures; withstands heat without oxidizing
- Penetrates completely into pins and bushings, leaving a protective film
- Ensures quiet, smooth operation
- Reduces friction and wear
- Resists corrosion
- Will not gum, char or build up hard deposits

- Biodegradable carrier fluid evaporates readily
- Long-lasting, low odor

### Almasol Smokeless Chain Lubricant (2705)

Use for bakery and tortilla oven chains and other chain applications where cleanliness is required and a high flash point carrier is needed.

- Premium grade synthetic lubricant
- Resists high temperatures
- Will not smoke or cause flame-ups
- Reduces friction and wear
- Resists corrosion
- Long-lasting, odor-neutral





## USDA H2 Oven Chain Lubricants (cont'd)

### Almasol High Temperature Lubricant (2799)

Use for oven chain applications in which a low evaporation carrier is needed to allow the lubricant time to penetrate.

- Premium grade synthetic lubricant
- Resists high temps; withstands heat without oxidizing
- Effectively lubricates up to 482°C (900°F)
- Penetrates completely into pins and bushings, leaving a protective film
- Reduces friction and wear
- Will not gum, char or build up hard deposits
- Will smoke minimally when applied to extremely hot chains
- Reaches even hard-to-reach spots
- Self-cleaning, long-lasting, odor-neutral

### Synolec® Lubricant (9963)

Use for spray or drip lubrication on chains and conveyors under high-temperature conditions. (Do not use where EP lubricant is required.)

- Pure synthetic oil dissipates at high temperatures without leaving any deposits
- Cleans up deposits left by petroleum residues
- Helps eliminate broken chains and downtime
- Greatly increases chain life
- Sprays easily in standard equipment
- Contains rust and oxidation inhibitor
- Has excellent thermal stability

### Monolec® High Temperature Oven Chain Lubricant (9965)

Use for skate chains in bread and bun baking, kiln chain drives, Stenter/Tenter chains and other high-temp oven chains. Works well with ovens' automatic lube systems.

- Premium grade synthetic lubricant
- At extremely high temps, forms soft residue that functions as solid lubricant, but with minimal buildup
- Acceptable for use when OEM specs prohibit solids
- High flash point minimizes safety concerns
- Excellent thermal stability and low volatility characteristics
- Smokes minimally when applied to extremely hot chains
- Reduces wear
- Reduces energy needs
- Long-lasting, odor-neutral

## Other USDA H2 lubricants used frequently in food & beverage industry

### Monolec R & O Compressor / Turbine Oil (6401-6407)

ISO VG 32, 46, 68, 100, 150, 220 & 320

Use for air compressors, oil circulating systems, enclosed gears and oiled bearings.

- Premium grade industrial oil
- Reduces wear and inhibits R&O
- Will not foam
- Excellent water separation
- Long-lasting, versatile

### Multilec® Industrial Oil (6801-6807)

ISO VG 32, 46, 68, 100, 150, 220 & 320

Use for air compressors, industrial turbines, enclosed gears, hydraulics and oiled bearings.

- Reduces wear and inhibits R&O
- Excellent water separation

### Duolec® Industrial Gear Oil (1601-1610, 1302, 1304)

ISO VG 46, 68, 100, 150, 220, 320, 460, 680, 1000 & 1500

Use for enclosed gears and any industrial gear or bearing application that requires a high thermal stability, EP lubricant.

- Adheres to metal during use
- Separates readily from water
- Will not foam
- Contains no solids
- 1302 & 1304 are undyed versions.

### Syntemp® Synthetic Lubricant (9102)

Aerosol

Use for high-temperature chains, sprockets and slides that require an EP lubricant.

- Reduces wear, friction and heat
- Resists water, rust and oxidation
- Won't run or melt

### Equipower™ Hydraulic Oil (4932-4934)

Equipower Ultra Hydraulic Oil (6132, 6146, 6168)

Equipower Ultra HVI Hydraulic Oil (6522, 6532, 6546)

ISO VG 22, 32, 46, 68

Use for hydraulic systems below or away from food production lines.