



ISO-9001 Registered Quality System.  
ISO-21469 Compliant.

#### Sales, Service & Distribution Center

Newark, NJ 07105  
Phone: 973-589-9150 Fax: 973-589-4432

#### Manufacturing, Sales, Service & Distribution Center

Toledo, OH 43605  
Phone: 419-691-2491 Fax: 419-693-3806

#### Sales and Tech Service Support

Phone: 1-800-733-4755

## PRODUCT DATA

# LUBRIPLATE HTCL-FG 220, HTCL-FG 100 & HTCL-FG 68

"These products are certified OU Kosher Pareve"

"These products are Halal certified"

\*NSF International H-1 Registered  
NSF ISO21469 Certification

## DESCRIPTION

LUBRIPLATE HTCL-FG 220, HTCL-FG 100 & HTCL-FG 68 are 100% ester based synthetic fluids specifically designed for use on oven chains in food manufacturing operations where incidental food contact is a possibility. The combination of an ashless additive system and the synthetic ester base provide protection against wear, rust, oxidation and corrosion.

LUBRIPLATE HTCL-FG 220, HTCL-FG 100 & HTCL-FG 68 are recommended for use on bakery oven chains, drying oven chains, tenter frame chains, heat-treating chains, and paint curing oven chain applications where they are exposed to high operating temperatures and must maintain a clean lubricated surface.

LUBRIPLATE HTCL-FG 220, HTCL-FG 100 & HTCL-FG 68 can be fed through micro lube systems, spray systems, mist systems, drip bottle systems and can be hand applied. When lubricating a hot chain, position the lubricator at the coolest point on the chain and use the minimum volume necessary to properly lubricate the chain. This will help prevent smoking of the lubricant once it reaches the hottest point in the oven.

HTCL-FG 68 & HTCL-FG 100 are ideal for use in upper cylinder lubricators commonly found on high pressure reciprocating air compressors requiring a NSF H1 registered food grade lubricant. These 100% synthetic ester fluids significantly reduce and potentially eliminate carbon and varnish deposits on high temperature exhaust valves. HTCL-FG 68 & HTCL-FG 100 will significantly increase exhaust valve life, reduce maintenance costs, and reduce downtime.

## ADVANTAGES

- ⇒ Eliminates carbon build-up on chains.
- ⇒ Does not contain harmful VOC's which pollute the atmosphere.
- ⇒ Advanced ester chemistry reduces friction, wear and energy costs.
- ⇒ High auto-ignition temperature to reduce the risk of oven fires >700°F.
- ⇒ Superior film strength reduces oil consumption and reduces smoke.

## Typical Test Data – See Back

## APPLICATIONS

- Drying Ovens • Textile – Tenter Frame Chains • Wallboard – Dryer Chains • Painting – Dryer Chains • Lithographic Chains – Beverage Can Lines • Glass – Forming Line Chains • Laminating – Drying Lines • Food Cookers & Frying • Heat Treating – Chains & Bearings • Kiln Support Rollers – Cement Plants (Trunions) • Bakery Oven Chains • Reciprocating Air Compressor Upper Cylinder Lubricators

## How to apply and at what temperature – See Back

### PACKAGING AVAILABLE

Carton, 4/1 Gallon Jugs

5 Gallon Pail

55 Gallon Drum

\*NSF International H-1 Registration No.

### PACKAGING AVAILABLE

5 Gallon Pail

55 Gallon Drum

\*NSF International H-1 Registration No.

### PACKAGING AVAILABLE

Carton, 4/1 Gallon Jugs

5 Gallon Pail

55 Gallon Drum

\*NSF International H-1 Registration No.

*Registered H-1 by NSF International for use in food processing facilities as a lubricant or anti-rust agent on equipment in which there may be incidental contact involving the lubricated part and the edible product.*

*"LUBRIPLATE HTCL-FG 220, HTCL-FG 100 & HTCL-FG 68 contain no components derived from TSE/BSE relevant animal species; therefore, they are compliant with the requirements of the TSE Note for Guidance EMA/410/01 Rev. 3 July 2011."*

### HTCL-FG 220

L0947-057

L0947-060

L0947-062

**143870**

### HTCL-FG 100

L0929-060

L0929-062

**158230**

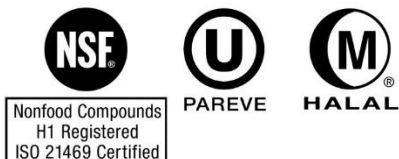
### HTCL-FG 68

\*\*\*

L0946-060

L0946-062

**143869**



PROPERTY	TEST METHOD	HTCL-FG 220	HTCL-FG 100	HTCL-FG 68
Viscosity @ 40°C	ASTM D-445	223.8	102	68.2
Viscosity @ 100°C cSt	ASTM D-445	19.6	12.7	10.7
Oven Test at 150°C				
Viscosity Change 24 hours		226	100	68.9
Viscosity Change 48 hours		229	100.5	70.9
Viscosity Change 72 hours		247	102	72.3
Viscosity Change 96 hours		264	102.6	74.6
Viscosity Change 120 hours		270	104	74.6
TAN Change 24 hours		0.12	0.11	0.11
TAN Change 48 hours		0.21	0.2	0.15
TAN Change 72 hours		0.22	0.23	0.20
TAN Change 96 hours		0.23	0.24	0.23
TAN Change 120 hours		0.26	0.27	0.28
Flash Point °C		302	302	302
Evaporation Loss 204°C/24 hrs	ASTM D-972	2.05	2.4	2.45
TGA Wt. Loss 250°C		0.13	0.15	0.23
Panel Cooker, 600°F, Residue, mg		18	12	13
4-Ball Wear Test 40 Kg, 600 rpm, 180°C	ASTM D-2266	0.43	0.43	0.43
Block On Ring COF		0.09	0.09	0.09
Ramsbottom, Carbon Residue		0.06	0.04	0.06
Specific Gravity @ 60°F				
Appearance		Clear, Pale Liquid	Clear, Pale Liquid	Clear, Pale Liquid

#### **How to apply and at what temperature:**

Micro Lube Systems	± 500°F
Spray Systems	± 500°F
Mist Systems <sup>1</sup>	± 500°F <i>(1.- Fire Safety precautions are necessary with this system when exposed to open flame)</i>
Drip Bottle Systems	± 500°F
Drip Bottle with Brush	± 500°F
Hand Applied <sup>2</sup>	± 500°F <i>(2.- Apply @ 250° or less to minimize smoke. Also, run chain a few minutes to remove excess.)</i>

**Note:** To avoid heavy smoke, lube in small volumes with more frequency. The higher the temperature, the more important this becomes.

#### **Where to lubricate a chain – (Lubricator positioning is important)**

- ⇒ Lube chains on slack side whenever possible.
- ⇒ Lube at pin and roller (Pin Bush Joint).
- ⇒ When lubing a hot chain, position the lubricator at the coolest point or as close as possible.

**Note: Know and understand the source of the heat to avoid fires. If you are in doubt, contact Technical Services at 1-800-347-5343.**

Our suggestion for establishing the lube cycle for automatic chain lubricators is to base it on amperage draws (an increase in friction). A simple high amp setting, activating a solenoid, signaling the lube motor (present for lube duration) to turn on. If you have any problems with systems of this nature, contact one of our Technical Staff.

*Remember to advise your customer that this chain oil contains an ester and when first applied to a used chain, he may experience a heavy cleaning action and must deal with dirt, contaminants and rust coming off the used chain. This will last ± two weeks and then the only thing coming off the chain will be a soft carbon when used in maximum temperature range.*

## **STORAGE RECOMMENDATIONS**

- ⇒ Products should be stored between 40°F-120°F
- ⇒ Products should be stored in a dry covered environment
- ⇒ Products should not be stored in warm, direct sunlight
- ⇒ Improper storage conditions can significantly alter the shelf life of the product. Such conditions would include temperature, moisture, open containers, etc.