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# **PRODUCT DATA**

# LUBRIPLATE HTCL-FG 220 & 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 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 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 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.

### **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.
- $\Rightarrow$  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

How to apply and at what temperature – See Back

PACKAGING AVAILABLE	HTCL-FG 220	
Carton, 4/1 Gallon Jugs	L0947-057	
5 Gallon Pail	L0947-060	
55 Gallon Drum	L0947-062	
*NSF International H-1 Registration No.	<u>143870</u>	
PACKAGING AVAILABLE	HTCL-FG 68	
Carton, 4/1 Gallon Jugs	***	
5 Gallon Pail	L0946-060	
55 Gallon Drum	L0946-062	
*NSF International H-1 Registration No.	143869	

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 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."

PROPERTY	TEST METHOD	HTCL-FG 220	HTCL-FG 68
Viscosity @ 40°C	ASTM D-445	223.8	68.2
Viscosity @ 100°C cSt	ASTM D-445	19.6	10.7
Oven Test at 150°C			
Viscosity Change 24 hours		226	68.9
Viscosity Change 48 hours		229	70.9
Viscosity Change 72 hours		247	72.3
Viscosity Change 96 hours		264	74.6
Viscosity Change 120 hours		270	74.6
TAN Change 24 hours		0.12	0.11
TAN Change 48 hours		0.21	0.15
TAN Change 72 hours		0.22	0.20
TAN Change 96 hours		0.23	0.23
TAN Change 120 hours		0.26	0.28
Flash Point °C		302	302
Evaporation Loss 204°C/24 hrs	ASTM D-972	2.05	2.45
TGA Wt. Loss 250°C		0.13	0.23
Panel Cooker, 600°F, Residue, mg		18	13
4-Ball Wear Test 40 Kg, 600 rpm, 180°C	ASTM D-2266	0.48	0.48
Block On Ring COF		0.09	0.09
Ramsbottom, Carbon Residue		0.06	0.06
Specific Gravity @ 60°F			
Appearance		Clear, Pale Liquid	Clear, Pale Liquid

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

$\pm 500^{\circ}$ F
± 500°F
$\pm$ 500°F ( <u>1</u> - Fire Safety precautions are necessary with this system when exposed to open flame)
± 500°F
± 500°F
$\pm$ 500°F (2- Apply @ 250° or less to minimize smoke. Also, run chain a few minutes to remove excess.)

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)

- $\Rightarrow$  Lube chains on slack side whenever possible.
- ⇒ Lube at pin and roller (Pin Bush Joint).
- $\Rightarrow$  When lubing a hot chain, position the lubricator at the <u>coolest</u> 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  $\pm$  two weeks and then the only thing coming off the chain will be a soft carbon when used in maximum temperature range.

