



TECHNICAL DATA

Rev.3/16

PETRO-GARD® FG-220

FOOD GRADE HIGH TEMPERATURE SYNTHETIC OVEN CHAIN LUBRICANT

**DESCRIPTION: ISO 220 Food Grade NSF H1 Registered #141245
Proprietary Synthetic Ester Blend, High Flash Point, Excellent Wear Protection**

PETRO-GARD® FG220 is acceptable as a lubricant with incidental food contact (H1) for use in and around food processing areas that meets all regulatory requirements under FDA 21 CFR 178.3570. Recommended Temperature Range: -25°C to 315°C (-25 to 600°F).

PETRO-GARD® FG-220 is a high performance lubricant formulated from premium state of the art synthetic esters and proprietary additives to withstand these extreme high temperature oven environments:

BAKERY OVEN CHAINS IN:

TORTILLA OVENS
PITA OVENS
TUNNEL/TRAY OVENS (PIN/ROLLER CHAINS)
RACK OVENS
SPIRAL OVENS
CONTINUOUS CONVEYOR OVENS (ROLLER BALL BEARING CHAINS)
BAGEL/MUFFIN OVENS
ALL FOOD PROCESSING EQUIPMENT

FEATURES & BENEFITS:

- **NSF H1 registered**, meets USDA 1998 H-1 guidelines – Can be used in food processing plants with incidental contact with food. Contains no known carcinogens, non hazardous and is considered environmentally friendly.
- **Exceptional Wear Protection:** Provides protection against wear, friction, rust and corrosion; thus, extending bearing, chain and equipment life.
- **Reduced Carbonization & Oxidation:** PETRO-GARD® FG-220 is a clean, ashless fluid-film that decreases energy consumption by maintaining optimal amperage, eliminating chain stretching and chain dragging.
- **Lower Evaporation & Volatility:** Very stable in high temperatures, provides longer lubrication intervals, saves money on lubricant consumption, has less smoke and no objectionable odors.
- **High Flash Point:** PETRO-GARD® FG-220 has a high flash point and can be applied to either a hot or cold chain while in production, hence reducing maintenance cost and increasing productivity.
- **Oven Fires Eliminated:** Lubricants such as solid graphite with low flashpoint carriers can cause fires in the oven if a flame from burner ignites before carrier evaporates.

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The information contained herein is believed to be accurate but all suggestions are made without Guarantee because the conditions of actual use are beyond our control. Petrochem, Inc. disclaims all Liability incurred in connection with the use of this data or suggestions.

Member of the American Baking Society

PHYSICAL PROPERTIES:

Property	Test Method	Typical Specification
ISO GRADE	ASTM D445	220
SAE GRADE	ASTM D445	50
Viscosity, cSt @ 40°C (104°F)	ASTM D445	220
Viscosity, cSt @ 100°C (212°F)	ASTM D445	19
Viscosity Index	ASTM D2270	95
Fire Point, °C (°F)	ASTM D92	350 (662°F)
Flash Point, °C (°F)	ASTM D92	315 (600°F)
Pour Point, °C (°F)	ASTM D97	-25
RBOT, min. (150 °C)		1030
4-Ball Wear Test, 40 Kg, 600 RPM, @ 200°C (400°F), 1 hr. Average wear scar diameter, mm	ASTM D4172	0.48
4-Ball Wear Test, 40 Kg, 1200 RPM, @ 200°C (400°F), 1 hr. Average wear scar diameter, mm	ASTM D4172	0.58
Evaporation Loss, 6.5 HRS. @ 204°C (400°F), %	ASTM D2595	1.0
Evaporation Loss, 24 HRS.	ASTM D2595	5.87%
Weight Loss, 22 hrs @ 204°C (400°F), %	ASTM D972	2.0%
Weight Loss, 20 hrs @ 260°C (500°F), %	ASTM D972	29.0%
Residue %, 20 hrs, 260°C	ASTM D972	14
Density @ 25°C		0.97 @ 25 C
Pounds/ Gallon		8.1 @ 25 C
Odor		Mild
Appearance	QL4099	Light Amber Liquid

REGULATORY STATUS:

PETROCHEM P/N#	PETRO-GARD® FG-220
TSCA (USA)	√
EINECS (EU)	√
DSL (Canada)	√
AICS (Australia)	√
ECL (Korea)	√
METI/ENCS (Japan)	
IECS (China)	√
PICCS (Philippines)	√
NSF Category Code	H1
NSF Registration Number	141244
Incidental Food Contact	Yes



STORAGE & HANDLING PRACTICES:

Warehouse in unopened containers at ambient conditions. Under these conditions, storage life is practically indefinite. For information on the safe handling and use of this product, refer to the Material Safety Data Sheet. For more information and availability, call (630) 513-6350.