



Our Business is
Global

TECHNICAL DATA

HT-2000™

HIGH TEMPERATURE SYNTHETIC OVEN CHAIN LUBRICANT

*Synthetic, Fully Formulated With Esters, ISO 100,
NSF Registered H-2*

Petrochem Inc.'s HT-2000™ is a premium high temperature synthetic ester lubricant formulated for conveyor roller ball bearing chains, pin and roller chains, slides and gears that operate in high temperature oven environments. HT-2000™ has a high flashpoint of 587°F.

HT-2000™ provides outstanding metal wear resistance, rust protection and excellent high temperature corrosion-oxidation stability which minimize carbon and varnish deposits. HT-2000™ has established several OEM approvals and credible testimonies from bakeries and other industries worldwide.

PETROCHEM'S HT-2000 ADVANTAGES:

- **QUALITY** - HT-2000™ is manufactured from the same high quality synthetic polyol ester base stock used in US military aircraft and jet engine fluids; contains a selective proprietary additive package composed to prevent wear, oxidation, corrosion, rust and carbonization.
- **SUPERIOR RESISTANCE TO WEAR** – In our 4-Ball Wear Test (ASTM D4172) at 400° F, the high resistance to metal wear and the ability to withstand heat, pressure and load carrying demands, prove the superiority film strength of HT-2000™.
- **EXCELLENT HIGH TEMPERATURE CORROSION-OXIDATION STABILITY** –The low volatility and excellent oxidative thermal stability; prevents carbonization, provides extended lubrication intervals, reduces lubricant consumption, has less smoke and no objectionable odors.
- **REDUCED MAINTENANCE COST & CLEANLINESS** – HT-2000™ is proven to be an extremely clean lubricant. It keeps the chain clean because it has an added synthetic ester that will break up any formed residue on the chain caused by airborne bake-off or other carbon deposits. Following Petrochem's maintenance and application procedures guarantee success to keep the chain clean and lubricated.
- **HIGH VISCOSITY INDEX** – HT-2000™ stable viscosity makes smaller changes from lower to higher temperature ranges providing thorough penetration at all temperatures and chain speeds. No unstable polymers are used to build the viscosity.

**NOTHING OUT PERFORMS HT 2000
WHEN LUBRICATING YOUR OVENS CHAINS.**



Website: www.petrochem1.com - Email: petrochem3@attbi.com

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 disclaims all Liability incurred in connection with the use of this data or suggestions.

PETROCHEM, INC.

6N999 Whispering Trail, ST Charles, IL 60175

Ph(630)513-6350

Fax(630)513-8324

Member of the American Baking Society

HT-2000™ SYNTHETIC OVEN CHAIN LUBRICANT

- **ENERGY SAVINGS** - Engineers using HT-2000™ report that it reduces the high load carrying demands because of two main reasons: First, the chain stays clean which eliminates dragging. Second, the roller ball bearings and/or roller pin bearings do not wear. This enables the chain to move at normal speed without increasing amperage.
- **NSF REGISTERED & USDA H-2 QUALIFIED** – Can be used in food plants for non-food contact. HT-2000™ contains no carcinogens and is environmentally friendly.

SPECIFICATION & TYPICAL PROPERTIES:

Property	Test Method	Typical Specification
ISO GRADE	ASTM D 445	100
SAE GRADE	ASTM D 445	30
Specific Gravity, 15.6°C	ASTM D 1298	0.99
Viscosity, cSt @ 40°C (104°F)	ASTM D 445	100
Viscosity, cSt @ 100°C (212°F)	ASTM D 445	15
Viscosity Index	ASTM D 2270	145
Fire Point, °C (°F)	ASTM D 92	340°C (655°F)
Flash Point, °C (°F)	ASTM D 92	308°C (587°F)
Pour Point, °C (°F)	ASTM D 97	-33°C (-25°F)
Rambsbottom Carbon on 10% Residuum, %	ASTM D-524	0.09
4-Ball Wear Test, 40 Kg, 1200 RPM, @167°F, 1 hr. Average wear scar diameter, mm	ASTM D4172	0.3
4-Ball Wear Test, 40 Kg, 1200 RPM, @400°F, 1 hr. Average wear scar diameter, mm	ASTM D4172	0.49
Evaporation Loss, 6.5 HRS. @ 204°C (400°F)	ASTM D-972	2
Total Acid Number, mgKOH/g	ASTM D-664	.2
Rust Test, 48 Hrs. Distilled Water	ASTM D 665A	Pass
Rust Test, 48 Hrs. Sea Water	ASTM D 665B	Pass
Appearance	QL 4099	Light Amber Liquid

APPLICATIONS:

- Bakery Oven Chains
- Roller Ball Bearing Chains on Continuous Oven Conveyors
- Pin/Roller Chains on Tunnel, Lap, Tray Ovens
- Beverage Can Line
- Lithographic Chains & many other Industrial applications

HT-2000™ SYNTHETIC OVEN CHAIN LUBRICANTLUBRICATION CYCLES RECOMMENDATIONS FOR CONTINUOUS CONVEYOR OVENS:

Lubrication cycles are dependent on the OEM/Type of oven, operating temperatures, chain condition, minutes per one revolution, length of chain, the applicator, the type of lubricant applied to the chain and maintenance procedures.

If operating temperatures are between 500°F - 600°F, increase lubrication intervals by ½ to 1 hours for the following suggested lubrication intervals:

EXAMPLES

- 800 to 900 feet of chain; operating temperature at 475°F - 500°F; 8 minutes per cycle; Lubricates every 3 hours/24 cycles
- 580 feet of chain; operating temperature 450° - 475°F; 8 - 10 minutes per cycle; Lubricates every 3 hours/20 cycles
- 650 feet of chain; operating temperature 480° - 495°F; 8 - 10 minutes per cycle; Lubricates every 3 hours (2 revolutions)/18 cycles
- 625 to 800 feet of chain; operating temperature 425°F, 7 - 10 minutes per cycle; Lubricates every 4 hours/24 cycles

LUBRICATION CYCLES RECOMMENDATIONS FOR TUNNEL OVENS:

To be determined by method of application and type of OEM applicator.

REGULATORY STATUS:

NSF REGISTERED: #138123

TSCA (USA)	YES
EINECS (EU)	YES
NDSL (CANADA)	YES
AICS (AUSTRALIA)	YES
ECL (KOREA)	YES
PICCS (PHILIPPINES)	YES
DIRECT FOOD CONTACT	NO (H-2)
FOOD PROCESSING PLANTS	YES

HANDLING PRACTICES:

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.



Nonfood Compounds
Program Listed H2