SINCE 1839 Schaeffer MANUFACTURING COMPANY

ISO 9001 CERTIFIED

TECHNICAL DATA

102 Barton Street, St. Louis, Missouri 63104
In-State (314) 865-4100/Out of State 800-325-9962/Fax (314) 865-4107 http://www.schaefferoil.com

#298 SMOKELESS HI-TEMP CHAIN LUBE
ISO 68

Smokeless Hi-Temp Chain Lube is a fully synthetic smokeless chain lubricant that is specially formulated for use as a lubricant on all types of high temperature chains that are exposed to temperatures up to 450°F (232°C).

Smokeless Hi-Temp Chain Lube is blended from the finest high quality low evaporation synthetic base fluids available. These synthetic base fluids provide Smokeless Hi-Temp Chain Lube with the following performance characteristics:

1. Excellent high temperature oxidation and thermal stability for prolonged lubricant life.
2. Low volatility
3. High viscosity index
4. Excellent lubricity
5. Reduction in the possibility of fires
6. Energy efficiency

HIGH TEMPERATURE OXIDATION AND THERMAL STABILITY:

Petroleum base chain lubricants have a tendency to oxidize into sludge and carbonaceous deposits and residues at elevated temperatures. These residues can block clearances, jam chain rollers and allow rapid wear to occur. Because of the Smokeless Hi-Temp Chain Lube synthetic base fluid's closed molecular structure the process of oxidation is greatly reduced. Thus, carbon, varnish and sludge deposits formed due to high temperature operation are virtually eliminated.

LOW VOLATILITY:

The low volatility of the synthetic base fluids used in Smokeless Hi-Temp Chain Lube results in the elimination of the formation of dense obnoxious fumes at high temperatures and results in lower makeup requirements due to evaporation.

Continued on Next Page

HIGH VISCOSITY INDEX:

This results in a minimum change in viscosity with temperature. The proper viscosity for proper chain lubrication is provided regardless of temperature.

EXCELLENT LUBRICITY:

The synthetic base fluids used in Smokeless Hi-Temp Chain Lube provides the lubricant with outstanding load carrying capabilities, film strength, and anti-wear properties. This results in increased chain life.

REDUCED FIRE POSSIBILITIES:

This is due to the Smokeless Hi-Temp Chain Lube synthetic base fluid's low volatility and low carbon forming tendencies and their relatively high flash, fire and auto-ignition points.

ENERGY EFFICIENCY:

Smokeless Hi-Temp Chain Lube's low volatility characteristics, low carbon forming tendencies and excellent lubricity result in a reduction of drag and friction on the chain mechanisms. This results in a significant reduction in starting loads and peak power demand, thus providing a realistic power cost savings.

Combined with these synthetic base fluids is a highly specialized high temperature additive package that provides the Smokeless Hi-Temp Chain Lube with the following special advantages:

1. Exceptional anti-wear and extreme pressure properties for reduced chain drag.
2. Exceptional rust and corrosion protection
3. Demulsibility characteristics
4. Rapid penetration of the Smokeless Hi-Temp Chain Lube into the chain rollers, pins and sprockets.

Continued on Next Page

Smokeless Hi-Temp Chain Lube contains a proven friction reducer and anti-wear agent called Micron Moly®. Micron Moly® is a liquid soluble type moly that plates itself to the metal surfaces of the chain. Once plated, Micron Moly® forms an indestructible long lasting solid lubricant film that is capable of withstanding pressures in excess of 500,000 psi. This solid lubricant film will reduce friction between the pins, rollers, bushings and sprockets of the chain, thus allowing the life of the chain to double or even triple.

Smokeless Hi-Temp Chain Lube is recommended for high temperature applications where a high degree of cleanliness is required such as:

Baking Oven Chains	Tenter Frame Chains
Paint and Ceramic Curing Ovens	Drying Oven Chains
Kiln Chains	Drying and Finishing Chains
Heat Treatment Chains	High Temperature Tunnel Chains
Chains for Fiber Optic Cables	Lithographic Ovens
Plywood Drying Ovens	Lens and Glass Forming Equipment

TYPICAL PROPERTIES

ISO Grade	68
Viscosity cSt @ 40°C (ASTM D-445)	60.00-78.50
Viscosity cSt @ 100°C (ASTM D-445)	8.0-10.65
Viscosity Index (ASTM D-2270)	100
Flash Point °F/°C (ASTM D-92)	521°/272°
Fire Point °F/°C (ASTM D-92)	575°/302°
Pour Point °F/°C (ASTM D-92)	-40°/-40°
Auto-Ignition Point °F/°C	850°/454°
Four Ball Wear Test (ASTM D-4172)	
Scar Diameter, mm	0.35
% Evaporation Loss (ASTM D-972)	
22 hrs @ 100°C	0.1
% Evaporation @ 6 hours (ASTM D-972)	
@450°F/232°C	6%
500°F/260°C	9%
Thermal Stability Test (10 grams in open aluminum dishes, oven maintained in a 300°F/149°C for 48 hours)	
% Viscosity Increase @ 100°C	+2.59
% Weight Loss	0.98
Conradson Carbon Residue (ASTM D-189)	
% Residue	0.07%