641

Omega
The Ultimate Lubricant

Nonfood Compounds
Category Code : H1
Registration Number : 147596

DESCRIPTION:

Omega 641 Food-Grade HTLR Chain Oil is a supreme specialty synthetic "high temperature low residue" lubricating solution designed for chain systems frequently exposed to high-temperatures in food & beverage industry. It is formulated using a pure, low-residue, thermal-stable synthetic base fluid together with a superior performance load-carrying & anti-wear additives package. This innovative chain oil is approved by NSF (H1-listed) and enables a versatile array of clean lubrication meeting and exceeding the stringent requirements demanded by the maintenance professionals in the food & beverage industry.

KEY APPLICATIONS:

Being NSF H1-listed for incident food contact, **Omega 641** is recommended for protecting and lubricating pin/roller chains of industrial bakery ovens (e.g. continuous conveyor ovens and tunnel & tray ovens) or chain units of heat treatment food & beverage processing equipment such as beverage can lines.

Omega 641 is also a reliable clean lubrication solution for chain units in non-food industry such as conveyor chains in drying ovens, tenter frame ovens, paint curing ovens, and similar equipment exposed to high temperature operating conditions.

EXCELLENT HIGH-TEMPERATURE PERFORMANCE:

Omega 641 is formulated with purely synthetic base fluid and a proprietary package of performance additives for high-temperature applications. It is synthetically engineered to guarantee outstanding lubrication performance at elevated temperatures:

- Excellent thermal & oxidative stability – ensuring high performance up to 280°C with minimal lubricant deterioration.
- Very low volatility – lower evaporation rate, less oil consumption and extended re-lubrication cycle.
- Exceptional lubricity and film strength to protect the chain units against wear and friction.
- Very tenacious, high adhesion, and long lasting, simply "stays-in-place".
- Low smoke emission – improve operational safety and satisfy high cleanliness production requirements.
- Reinforced with anti-wear and load-carrying additives to offer multi-protection to the chain components.

EXTRA-LOW RESIDUE:

When exposed to high temperatures, conventional chain oils break down, degrade and form deposits such as varnish or sludge in the chain units. This kind of residue build-up, which is difficult to remove, is detrimental to the chain units because it will:

a. Clog the internal links of the chains, interrupting the smooth operation of the chain units and increasing the power input required to drive the chain units,
b. Increase the loading and stress on the chains, accelerating the wear rate of the chains and leading to premature chain failure, and
c. Potentially increase the risk of unscheduled production break-down if the two points above are not treated properly.

Due to the polar nature of the synthetic base fluid formulated with, Omega 641 offers excellent detergency and is almost residue-free. With Omega 641, maintenance professionals do not have to worry about cleaning large chunk of deposits and coping with unexpected production breakdown.

TYPICAL DATA:

TEST	ASTM TEST METHOD	TEST RESULT
Appearance	-	*Light Amber
Density, kg/L @ 25°C	D-1298	0.972
Viscosity, cSt @ 40°C	D-445	220
Viscosity, cSt @ 100°C		18.5
Viscosity Index	D-2270	96
Flash Point, °C	D-92	315
Pour Point, °C	D-97	-25
Four Ball Wear, Scar Diameter (mm)	D-4172	0.64
RBOT, Oxidation Lifetime (minutes)	D-2272	1030
Weight Loss, % (22 hrs, 204°C)	-	2.0
Recommended Operating Temperature Range, °C	-	-10 to 280

The characteristics given above are typical of current production only and slight batch to batch variations should be expected.

* UV light may discolor the product. This happens quickly in sunlight and more slowly in office fluorescent lighting. Depending on the wavelength, a UV lamp would also make the product shift to a darker yellow-amber. Although the color change is quite noticeable, it has no effect on the performance of the lubricant.