

Nevastane[®] **SL**

Synthetic Food Machinery Hydraulic, Bearing and Compressor Oil



Nevastane SL is a line of fully synthetic food machinery lubricants providing superior protection and longer service life to industrial equipment found in the food processing industry or wherever this level of hygienic protection is needed. The synthetic hydrocarbon base stocks and high performance additives provide excellent protection against high temperatures and loads at the same time offering low temperature fluidity. Assures long machine life while reducing contamination problems as required by the Hazard Analysis and Critical Control Point System (HACCP).



NSF registered category code **H-1**, for incidental contact with food.

Formulated from ingredients meeting

1998 United States FDA regulation 21 CFR 178.3570.

Applications	Benefits
<ul style="list-style-type: none">▪ High pressure hydraulic systems	<ul style="list-style-type: none">▪ Extended drain intervals
<ul style="list-style-type: none">▪ Rotary screw compressors; Nevastane SL 32, 46 and 68▪ Reciprocating Compressors; Nevastane SL 100 and 150	<ul style="list-style-type: none">▪ Low and high temperature service▪ Higher film strength

▪ Low and High speed bearings	▪ Anti-wear protection
▪ Airline lubricators; Nevastane SL 32	▪ Rust & oxidation protection
▪ Guides and chains	▪ Anti-foam
▪ Parallel shaft and bevel gears	▪ Compatible with elastomers and seals
▪ Worm gears	

Properties

ISO Viscosity Grade	32	46	68	100	150	220	320	460
NSF Registration Number	125580	125581	125582	125583	125584	125585	125578	125579
Appearance	<-Clear Pale Amber Liquid->							
Color, ASTM D-1500	<0.5>							
Odor	< Bland >							
Kinematic Viscosity, cSt, 40°C	32	46	68	100	150	220	320	460
Kinematic Viscosity, cSt, 100°C	6.0	7.6	10.7	14.4	19.8	27.0	36.0	47.8
Viscosity Index	138	138	148	150	153	158	158	160
FZG Wear Test, DIN 51354				12	12	12	12	12
Flash Point, C.O.C., °F (°C)	465 (240)	490 (254)	490 (254)	470 (243)	475 (245)	480 (249)	475 (245)	480 (249)
Fire Point, C.O.C., °F (°C)	515 (268)	540 (282)	545 (285)	540 (282)	540 (282)	545 (285)	545 (285)	545 (285)
Pour Point, °F (°C)	-58 (-50)	-58 (-50)	-49 (-45)	-44 (-42)	-44 (-42)	-26 (-32)	-17 (-27)	-15 (-26)
Density, lb./gal, 60°F (kg/m ³ , 15°C)	7.03 (842)	7.06 (846)	7.08 (848)	7.10 (851)	7.12 (853)	7.14 (856)	7.16 (856)	7.18 (860)

Converting a hydraulic system with standard industrial hydraulic oil to food grade (H1)

Converting a hydraulic system with standard industrial hydraulic oil to food grade (H1) is not difficult. If your system is outdoors and sees a wide ambient temperature range, I will recommend a synthetic hydraulic oil that is also food grade (H1) – Use Nevastane SL 46 Hydraulic Fluid. If it is an indoor system, use Nevastane AW 32. This will handle the requirements year 'round.

I will describe the method to convert to food grade (H2) oil. I will assume the system has been maintained and the old fluid is reasonably clean, meaning a severe flush to clean a dirty system is not necessary.

1. Drain the hydraulic reservoir and all possible filters, lines and actuators.
2. Open the reservoir and clean it manually, scrape any sludge with a putty knife and wipe it with mild solvent (like paint thinner or Stoddard Solvent) and lint-free wiping cloths to remove all residue and sludge. Wipe it dry with lint-free wipers.
3. Install new oil filter.
4. Reconnect and tighten all line fittings and drain points.
5. Follow any OEM instructions for filling the reservoir and pump (since the pump is empty).
6. Using the new Nevastane SL 46 Hydraulic Oil, install only enough oil to charge all lines and actuators and operate without cavitation (Half full?).
7. Operate the system through several complete cycles or for a period of time, say 30 minutes or so.
8. Stop the system and drain as in STEP ONE. You do not need to open the reservoir if it can be drained.
9. Reconnect and tighten all line fittings and drain points.
10. Refill the reservoir and pump as before with another charge of Nevastane SL 46.
11. Operate the system until all lines and actuators are full.
12. Top up the system again and operate as normal.

I do not recommend using any other fluids, such as a flushing oil because hydraulic systems are notoriously difficult to drain all the oil. I prefer to not introduce anything unnecessary into the system. If it is not practical to drain all lines and actuators, then just drain and clean the reservoir as in steps 1 – 2. Fill the reservoir with the new oil, Nevastane oil, and run the unit for a couple hours or a day with enough oil to get by. Then drain and fill with fresh Nevastane oil and go back to

normal use. I suggest an oil sample be drawn and tested a month after changeover, then again in a year. The customer should probably get three or four years of service with this oil depending on outside contaminants and maintenance.

Nevastane Lubricants for the Meat and Poultry Industry

Meat and Poultry Applications	TOTAL Lubricants Recommendations
General Lubrication	
Bearings, Grease	Nevastane HT/AW (NLGI grades 0, 1, 2)
	Nevastane SFG (NLGI grades 1,2)
	Nevastane HD2T (NLGI grade 2)
	Ceran FG (NLGI grade 2)
	Nevastane 5P7
Gear Boxes – Helical, Bevel	Nevastane EP 100 to 680
	Nevastane SL 68 to 460
Gear Boxes – Worm	Nevastane EP 460 & 680
	Nevastane SL 460 & 680
	Nevastane SY 22 & 320
Gears – Open	Nevastane 5P7
Chains and General Oiling	Nevastane AW 22 to 68
	Nevastane EP 100 to 1000
	Nevastane Chain Oil LT (ISO 22)
	Nevastane Chain Oil Med (ISO 100)
General Lubrication - Spray	Nevastane 6 Safeguard
	Nevastane Silicone Safeguard
Hydraulic Systems	Nevastane AW 22 to 68
	Nevastane SL 32 to 68
Trolleys	Nevastane Trolley Lube
	Nevastane 6 Safeguard
Air Compressors	
- Rotary	Nevastane SL 32 to 68
- Reciprocating	Nevastane SL 68 to 150
Refrigeration Compressors	
- Ammonia	Friga 2