

NSF	Biobased	Bar & Chain	Greases	Lubricating Oils	Metalworking	Gear Oils	Engine Oils	Anti-mist	Hydraulic Fluid
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Tackifiers		Typical Viscosity cSt @ 100C	Treat Level wt %	NSF	Biobased	Bar & Chain	Greases	Lubricating Oils	Metalworking	Gear Oils	Engine Oils	Anti-mist	Hydraulic Fluid
V-176	Good shear stability and good string length. PIB in paraffinic oil.	3,000	0.5 - 2.0				●	●	●	●	●		
V-177	Concentrated PIB tackifier with good shear stability and string length.	10,500	0.5 - 2.0				●	●	●	●	●		
V-178	Good shear stability and good string length. High concentrate PIB in paraffinic oil.	4,000	0.5 - 2.0				●	●	●	●	●		
V-172	Very good shear stability and good string length. High concentrated PIB in paraffinic oil.	4,000	0.5 - 2.0				●	●	●	●	●	●	
V-198A	Excellent string length and fair shear stability. PIB in paraffinic oil. Use V-498 for food grade applications.	5,000	0.5 - 0.2				●	●	●	●	●	●	
PARATAC	Good shear stability and good string length. PIB in paraffinic oil. PARATAC XT for 900 cSt @ 100°C with good string.	3,000	0.5 - 0.2				●	●	●	●	●	●	
V-188	OCP tackifier with excellent shear stability and string length.	4,000	0.5 - 0.2				●	●	●	●	●	●	
V-380	Extreme high temperature tackifier, modified PIB. Thermally stable at 200°C.	5,000	0.5 - 0.2				●	●	●	●	●	●	
V-422	Good shear stability and good string length. PIB in food grade technical white oil.	3,000	0.5 - 0.2	●			●	●	●	●	●	●	
V-584	LuSC/VGP approved food grade tackifer for vegetable oil formulations. Provides excellent string.	2,500 @ 40C	3.0 - 10.0	●	●	●	●	●	●	●	●	●	●
V-802	Environmentally friendly aqueous polymer solution for use in waterbased and emulsion lubricants.	40,000 @ 40C	0.3 - 5.0	●	●			●					●

Viscosity Modifiers		Shear Stability Index (PSSI) ASTM D6278	Thickening Efficiency in ISO 32, cSt @ 100C	Typical Viscosity cSt @ 100C	Treat Level wt %	NSF	Biobased	Bar & Chain	Greases	Lubricating Oils	Metalworking	Gear Oils	Engine Oils	Anti-mist	Hydraulic Fluid
V-158F	Liquid OCP viscosity modifier in paraffinic oil.	45	10% = 12.5	1,600	5 - 10%				●	●	●	●	●		
V-160	Liquid shear stable OCP viscosity modifier in paraffinic oil.	22	10% = 11.6	1,000	5 - 10%				●	●	●	●	●		●
V-255	Pellet form shear stable polymer viscosity modifier. 12% = 1000 cSt @ 100°C	25	1% = 10.5	—	0.5 - 2.0				●	●	●	●	●		
V-460	Liquid food grade, shear stable viscosity modifier.	20	10% = 13.6	3,000	5 - 10%	●			●	●	●	●	●		
V-508F	Liquid LuSC/VGP approved food grade VM for vegetable oil and esters.	28	12% = 45.0	7,000	5 - 10%	●	●	●	●	●	●	●	●		●
V-515	Liquid VM for vegetable oil.	50	10% = 12.0	8,000	2 - 16%		●	●							●
MH-7000	Liquid polymethacrylate (PMA) VII with excellent thickening efficiency	36	10% = 15.0	1,500	5 - 10%				●	●			●		
MG-3000	Liquid PMA VII with exceptional shear stability for gear oils (KRL = 20 at 20-25wt%)	0	10% = 8.6	550	10 - 30%				●	●	●	●	●		●
MH-2000	Liquid PMA VII with exceptional shear stability for hydraulic fluid (KRL = 35 at 5-10wt%)	1	10% = 9.2	1,100	5 - 20%				●	●	●	●	●		●

Grease Additives		Treat Level wt %	NSF	Biobased	Bar & Chain	Greases	Lubricating Oils	Metalworking	Gear Oils	Engine Oils	Anti-mist	Hydraulic Fluid
V-207	Quick dissolving powder polymer added with the cooling oil to grease. Superior shear stability and water spray-off for most greases.	0.5 - 2.0				●						
V-4020	Pellet polymer to reduce water spray off in grease at low treat.	0.2 - 1.0				●						
V-191	Polymer emulsion for water spray-off and tack for greases with very high water content. May be used in organic and synthetic greases.	0.5 - 2.0				●						
V-4270	Liquid polymer concentrate to improve shear stability and water spray-off. Easily handled.	1.0 - 2.0				●						
V-4033	Liquid polymer to improve shear stability, water washout, and water spray-off in grease.	3.0 - 5.0				●						

Specialty Packages & Additives		Treat Level wt %	NSF	Biobased	Bar & Chain	Greases	Lubricating Oils	Metalworking	Gear Oils	Engine Oils	Anti-mist	Hydraulic Fluid
CI-426	Corrosion inhibitor and anti-wear package for food grade applications.	0.5 - 2.0	●			●	●	●	●	●	●	●
GA-604	Multifunctional industrial open and closed gear oil package for mineral and vegetable oils.	2.3		●		●	●	●	●	●	●	●
HF-580	Biobased ashless hydraulic fluid package. Passes Vickers V104C pump test. Compatible in a variety of base fluids. HF-590 for LuSC Eco-Label.	2.5		●		●	●	●	●	●	●	●
RD-535	Biobased Gear Oil Package >70 lb. Timken and weld load 250 kg. Additive package for rock drill, grease, or open gear application.	2.0 - 7.0	●			●	●	●	●	●	●	●
SGP-567	Biobased saw guide oil package containing friction modifier, corrosion inhibitor and anti-wear agents. SGP-571 for LuSC Eco-Label.	1.5		●		●						
V-162	Anti-mist additive for oil based coolants. Use MW-612 for aqueous or synthetic fluids.	0.02 - 0.1						●			●	
WA-60SF	Light color, low odor sulfur-free way oil package. Passes Cincinnati Fives stick-slip test.	1.5				●	●	●	●	●	●	●
WA-64	Light color, low odor, compatible in a range of base oils. Cincinnati Fives & LS-2 approved.	1.75				●	●	●	●	●	●	●

Cold Flow Improvers		Treat Level wt %	NSF	Biobased	Bar & Chain	Greases	Lubricating Oils	Metalworking	Gear Oils	Engine Oils	Anti-mist	Hydraulic Fluid
PD-585	Concentrated cold flow improver for vegetable oils. Excellent performance in vegetable oils.	0.1 - 0.5	●	●	●	●	●	●	●	●	●	●
PD-590	Readily biodegradable cold flow improver, meets LuSC Eco-Label and EPA Safer Choice certifications. No known carcinogens.	0.1 - 0.5	●	●	●	●	●	●	●	●	●	●
PD-555C	Excellent cold flow improver for vegetable oils. Performs up to -33°C. Compatible in sunflower, soybean, canola, and TMPTO.	0.1 - 0.5	●	●	●	●	●	●	●	●	●	●
PD-610	Mineral oil pour point depressant for gear oils, hydraulic fluid, and industrial lubricants in Gr. I/II oil to -55°C. PD-630 for Gr. III oils.	0.1 - 0.5				●	●	●	●	●	●	●

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