



CalEster™ SYNTHETIC POLYOL ESTERS

Calumet Specialty Products Partners, L.P. offers a complete line of high purity synthetic polyol esters for use in high performance lubricant applications. With over 50 years of experience in manufacturing synthetic polyol esters, Calumet's lubricant grade esters are engineered to deliver the highest performance under the most demanding conditions.

In addition to the products shown below, Calumet's lubricant chemists are capable of developing custom esters or blends designed to optimize performance in your specific applications. Bring us your lubrication challenges and let us work with you.

PRODUCT FEATURES

- Excellent High Temperature Stability
- Excellent Low Temperature Fluidity
- Extremely Low Volatility
- High Viscosity Index
- High Lubricity
- Excellent Additive Solubility
- Enhanced Cleanliness
- Readily Biodegradable
- All Calumet Synthetic Polyol Esters are Phthalate free

BENEFITS

- Extended operating temperature range
- Longer lubricant life with less waste disposal
- Reduced maintenance and down time

PACKAGING & SHIPPING

Available in:

- 55 Gallon Steel Drums
- 275 Gallon Poly Totes
- Tank Truck
- Rail Car

HANDLING & SAFETY

This product should be stored in sealed containers at ambient temperature.

Read and understand the Safety Data Sheet (SDS) before using this product.

TECHNICAL ASSISTANCE

For product or technical questions contact your Sales Representative or Calumet Product Support.

Product Support:
800-437-3188
technical@clmt.com

www.calumetspecialty.com

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TYPICAL PROPERTIES

TEST	TEST METHOD	N	T	TS	MW	A	J	F	600	68S	22 Pro	32 Pro	68 Pro	100 Pro	170 Pro	220 Pro	HT68	HT125	HT175	HV
Viscosity @ 100°C (cSt)	ASTM D445	2.5	4.4	4.0	4.2	4.3	4.9	8.8	4.6	8.5	4.3	5.4	8.9	12.7	16.4	19	8.9	14	18	26
Viscosity @ 40°C (cSt)	ASTM D445	8.2	20	17	19	20	25	52	23	68	19	31	68	100	173	220	66	125	175	390
Viscosity @ -40°C (cSt)	ASTM D445	670	4,100	3,300	4,000	4,400	6,900	37,000	8,500	-	-	25,800	-	-	-	-	-	-	-	-
Viscosity Index	ASTM D2270	127	133	133	127	123	138	148	116	90	127	129	104	123	100	95	108	115	115	89
Pour Point (°C)	ASTM D97	-51	-55	-64	-57	-65	-63	-60	-65	-40	-60	-57	-38	-45	-28	-26	-38	-34	-29	-18
Flash Point (°C)	ASTM D92	210	255	249	247	243	258	275	241	255	225	270	260	270	275	290	266	293	285	290
Color, ASTM	ASTM D1500	L0.5	L0.5	L0.5	L0.5	L0.5	L0.5	L0.5	L0.5	L0.5	L0.5	L0.5	L0.5	L0.5	L0.5	L0.5	L0.5	L0.5	L0.5	L0.5
Total Acid Number (mg KOH/g)	ASTM D664	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Water Content (wt %)	ASTM D1533	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.02	0.02	0.02	0.02
Density @ 15.6°C (lb/gal)	Conversion	7.64	7.90	7.94	8.33	8.36	8.30	8.43	8.34	8.00	8.30	8.28	8.12	8.27	8.15	8.20	8.02	8.10	8.13	8.05
Noack Volatility (mass %)	ASTM D5800	-	4	6	4	5	3	3	6	2.5	-	4	3	3	2	2	2	2	2	2
Food Grade	NSF		HX-1																	
Biodegradability	OECD 301 B	>60%	86%	>60%	>60%	81%	91%	67%	90%											
Phthalate Free		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Application Guide																				
Aviation		✓	✓	✓	✓	✓	✓	✓												
Automotive			✓	✓			✓	✓												
Industrial		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Refrigeration*					✓					✓	✓	✓	✓	✓	✓				✓	

*Refrigeration grades dried to meet low moisture specification.