



HIGH QUALITY PRODUCTS FOR THE PRINTING INK INDUSTRY

Calumet Specialty Products Partners, L.P., produces a full line of aliphatic solvents consisting of both hydrotreated and straight distillate solvents produced from domestic local crude.

Calumet's MAGIESOL® and INKOL® products are specialty aliphatic solvents with low aromatics and optimal boiling ranges. Our unique capabilities allow us to offer custom solvents blended to order, which are delivered in a variety of containers including drums, totes, flexi-bags, iso-containers, truckload and railcar quantities.

NAPHTHENIC INKOL® TYPICAL PROPERTIES

Suggested Applicatoins: C = Coldset V = Varnish

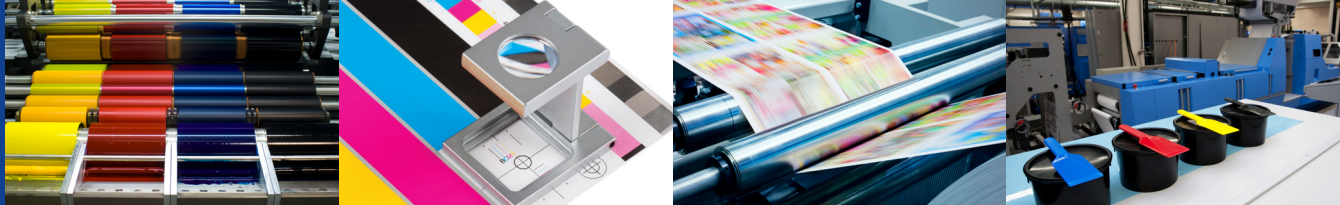
PROPERTY	METHOD	N-40 INKOL	NS-60 INKOL	NS-100 INKOL	NS-750 INKOL
Suggested Applications		V	C	C	C
API Gravity @ 60°F	ASTM D4052	28.5	26.5	24.5	20.9
Specific Gravity @ 60°F	ASTM D4052	0.8843	0.8955	0.9072	0.9284
Density @ 60°F (Pounds Per Gallon)	MPMS 11.5.1	7.363	7.457	7.552	7.731
Viscosity @ 100°F (SUS)	ASTM D2161	40.6	60.9	109	789
Viscosity @ 40°C (cSt)	ASTM D445	4.20	10.00	20.10	165.1
Aniline Point (°F)	ASTM D611	139.0	150.0	163.2	183.1
Flash Point COC (°F)	ASTM D92	264	301	330	405
Color, ASTM	ASTM D1500	L0.5	L0.5	L0.5	1.0

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



MAGIESOL® & SPECIALTY SOLVENTS TYPICAL PROPERTIES

Suggested Applications: H = Heatset S = Sheetfed V = Varnish

PROPERTY	METHOD	MAGIESOL 44	MAGIESOL 47	MAGIESOL 52	MAGIESOL 60	470 OIL	500 OIL	CALPRINT 38
Suggested Applications		(H)	(H, S, V)	(S)	(S)	(H, V)	(H, S, V)	(S)
API Gravity @ 60°F	ASTM D4052	46.5	44.3	42.7	38.8	42.4	40.7	39.7
Specific Gravity @ 60/60°F	ASTM D4052	0.7952	0.8040	0.8223	0.8309	0.8148	0.8213	0.8266
Density @ 60°F (Pounds Per Gallon)	ASTM D1250	6.619	6.702	6.763	6.918	6.784	6.838	6.898
Refractive Index @ 20°C	ASTM D1218	1.4405	1.4440	1.4485	1.4574	1.4491	1.4543	1.4528
Flash Point TCC (T), COC (C), PMCC (P) (°F)	ASTM D56, D92, D93	200 (P)	215 (P)	260 (C)	305 (C)	220 (P)	258 (P)	281 (P)
Color, Saybolt	ASTM D156	30	30	30	30	26	24	30
Pour Point (°F)	ASTM D97	-15	-5	10	50	0	15	10
Kauri-Butanol Value	ASTM D1133	26.5	24.5	22.6	19.8	25.5	24.8	23.8
Aniline Point (°F)	ASTM D611	175	181	192	204	172	183	192
Aromatics by UV (Wt.%)	UV	0.87	0.79	0.47	1.4			0.0
Aromatics by FIA (Vol.%)	ASTM D1319					7.7	9.2	
Heat of Combustion (Btu/lb.)	Calculation	20,150	20,150	20,000	20,050	19,844	19,793	19,761
Heat of Vaporization (Btu/lb.)	Calculation	106	113	100	93	105	107	101
Average Molecular Weight	Calculation	199	203	236	266	201	230	235
Vapor Pressure @ 68°F (mm Hg)	ASTM D2879	0.10	0.04	0.03	0.02	0.08	0.01	0.02

DISTILLATION RANGE, °F

