



### ELPRIMO NAPHTHENIC TRANSFORMER OIL (UN-INHIBITED)

#### Performance Standards:

- It meets the Naphthenic Uninhibited transformer oil specification IEC 60296.

#### Product Specifications:

CHARACTERISTICS	TEST METHOD	SPECIFICATION
<b>1-Function:</b>		
Color	ASTM D 1500	--
Kinematic Viscosity @40 °C mm <sup>2</sup> /sec	ISO 3104	Max. 12
@ (-) 30°C mm <sup>2</sup> /sec	ISO 3104	Max. 1800
Pour Point °C	ISO 3016	Max. (-) 40
Water Content (PPM)	IEC 60814	Max. 30 mg/kg for bulk supply Max. 40 mg/kg for supply in Drum
Breakdown Voltage	IEC 60156	Min. 30 kV as delivered Min. 70 kV after lab treatment
Density @20°C KG/dm <sup>3</sup>	ISO 3675 OR ISO 12185	TBR
Density @29.5C KG/dm <sup>3</sup>	ISO 3675 OR ISO 12185	---
Dielectric Dissipation Factor @ 90°C & 40 to 60 Hz	IEC 60247 OR IEC 61620	Max. 0.005
Particle Content	ISO 60970	No General Requirement
<b>2-Refining/ Stability:</b>		
Appearance	VISUAL	Clear, free from sediment & Suspended matter
Acidity	IEC 62021-1 OR IEC62021-2	Max. 0.01 mg KOH/gm
Inter Facial Tension MN/m	EN 14210 OR ASTM D971	Min. 40
Total Sulphur Content	IP 373 OR ISO 14596	No General Requirement
Corrosive Sulphur	DIN 51353	Non Corrosive
Potentially Corrosive Sulphur	IEC 62535	Non Corrosive
DBDS(Dibenzyldisulphide) mg/kg	IEC 62697	Not Detectable(<5mg/kg)
Inhibitors of IEC 60666	IEC 60666	(U) Uninhibited Oil; Not Detectable (<0.01%)
Metal Passivator Additives mg/kg	IEC 60666	Not Detectable
Other Additives	---	---
2 Furfural Content mg/kg/gm	IEC 61198	Not Detectable
Stray Gassing	See 6.22	No General Requirement
<b>3-Performance:</b>		
Oxidation Stability @120°C, 164 HRS	IEC-61125:1992 (METHOD C) TEST DURATION; UNINHIBITED OIL: 164 Hrs	
A) Total Acidity mg KOH /gm	1.9.4 of IEC 61125:1992	Max. 1.2
B) Sludge %	1.9.1 of IEC 61125:1992	Max. 0.8
C) DDF @ 90 °C	1.9.6 Of IEC 61125:1992	Max. 0.5
Gassing Tendency	Amendment 1(2004) +IEC 60247	No General Requirement
ECT	IEC60628:1985, METHOD A	No General Requirement
<b>4- Health, Safety and Environment:</b>		
Flash Point	ISO 2719	Min. 135°C
PCA Content %	BS-2000 PART 346	Max. 3 .0%
PCB Content mg/kg/gm	IEC-61619	Not Detectable
Carbon Type Analysis CA %		4.0 to 12.0
CP % CN %	FTIR	Max. 50.0 Min. 42.0

#### HEALTH & SAFETY, ENVIRONMENT:

Prolonged and repeated contact with oil may cause skin disorders. Avoid contact. Wash immediately with soap and water. Do not discharge used oil in to drains or the environment. Dispose to an authorized used oil collection point. For further Information on Safety Guidelines please refer to MSDS available on our website [www.bravoil.ae](http://www.bravoil.ae)