

# CEC REFERENCE OR STANDARDISATION OIL DATA SHEET

RL Number :	RL208/1
Issue Date :	Minutes CEC SL 040 – 5 <sup>th</sup> June 2003
Supersedes :	

**Purpose :**

Standardization oil for lubricating evaporative losses  
Method CEC L-40-A-93 – Methods A & B

**Characteristics :**

Characteristics	Method	Value	Unit
SAE Grade		10W	
Density @ 15°C	ASTM D4052 / D1298	0.867	g/cm <sup>3</sup>
Flash Point	ASTM D92	230	°C
Pour Point	ASTM D97 / ASTM D5950	-6	°C
KV @ 100°C	ASTM D445	5.51	mm <sup>2</sup> /s
KV @ 40°C	ASTM D445	32.4	mm <sup>2</sup> /s
VI	ASTM D2270	106	
CCS Visc @ -20°C	ASTM D5293	2330	mPas
TBN (perchloric)	ASTM D2896	<0.10	mg KOH/g
TAN	ASTM D664	0.006	mg KOH/g
Sulphated ash	ASTM D874	0.03	% mass

IR comparison with previous batch

**Elemental Analysis :**

Zinc	ICP ASTM D5185	<0.001	% mass
Phosphorus	ICP ASTM D5185	<0.001	% mass
Calcium	ICP ASTM D5185	<0.001	% mass
Magnesium	ICP ASTM D5185	<0.001	% mass

	CEC L-40-93	
	Procedure A	Procedure B
NOACK Volatility*	12.10 % mass	11.69 % mass
RSD*	0.46	0.30
Control limits* (mean ± 1.8 x RSD)	11.28 – 12.92	11.15 – 12.22
Warning limits* (mean ± 1.3 x RSD)	11.49 – 12.72	11.28 – 12.09

\* Noack values determined in the 2003 CEC round robin. The following precision values were determined in the same round robin:  
For Procedure A, standard deviation of repeatability  $\sigma r = 0.23\%$  Noack; standard deviation of reproducibility  $\sigma R = 0.46\%$  Noack;  
For Procedure B, standard deviation of repeatability  $\sigma r = 0.17\%$  Noack; standard deviation of reproducibility  $\sigma R = 0.30\%$  Noack.

**Composition :**

85% SN 175, 15% SN 145 + 0.05% Phenolic Antioxidant

**History/originated by :**

4100 litres blended  
Oil blended in February 23, 1998 at Esso Research Centre Abingdon Oxfordshire, U.K.