K-10551

CERTIFICATE OF ANALYSIS

BASE OIL SALES AND MARKETING

Excel Paralubes

CERTIFICATE ISSUED:

TANK NO:

PRODUCT:

T-70019

1040944

Pure Performance Base Oil 225N

DATA SUPPLIED IS FROM SELECTED TANK

TEST METHOD	PROPERTIES	RESULTS		SPECIFICATIONS	
ASTM E2680		VALUE	MOU	MINIMUM	MAXIMUM
ASTM D4052	Appearance	Clear & Bright		Clear & Bright	
ASTM D4052	Specific Gravity @ 60F	0.8590			
	API Gravity	33.23	API		
ASTM D445	Viscosity, kinematic @ 40C	40.46	cSt		
ASTM D445	Viscosity, kinematic @ 100C	6.39	cSt	6.38	6.58
ASTM D2161	Viscosity, Sayb. Univ. @ 100F	208	sus		
ASTM D2161	Viscosity, Sayb. Univ. @ 210F	47.6	sus		
ASTM D2270	Viscosity Index	107		100	
ASTM D92	Flash Point	455	'F	420	
ASTM D92	Flash Point	235	"C		
ASTM D5950	Pour Point	10	°F		10
ASTM D5950	Pour Point	-12	°C		
ASTM D6417	Volatility @ 700F	0.6	area %		7.0
ASTM D6045	ASTM Color	L0.5			0.5
ASTM D6304	Water	28	ppm_w		50
ASTM D1401 *	Water Sep., emis	0	mL		-
ASTM D1401 *	Water Sep., sep. time	5	min		
UV Correl. **	Salurates	100	weight %	99,0	
ASTM D5293	Viscosity, apparent @ -20C	2725	cP		2800
ASTM D5800	Evaporation Loss, Proc 8	8.1	mass %		12.0
ASTM D6045	Saybolt Color	+30			
ASTM D7213	0.5 % weight (IBP)	695	°F .		
ASTM D7213	05 % weight	741	°F		
ASTM D7213	10 % weight	759.5	°F		
ASTM D7213	20 % weight	783	~F		
ASTM D7213	30 % weight	802	°F		
ASTM D7213	40 % weight	820	°F		
ASTM D7213	50 % weight	837	F		
ASTM D7213	60 % weight	854	°F		
ASTM D7213	70 % weight	873	*F		
ASTM D7213	80 % weight	892			
ASTM D7213	90 % weight	917,2	°F		
ASTM D7213	95 % weight	936	*F		
ASTM D7213	99.5 % weight (FBP)	981	'F		
JV Correl. **	Aromatics	<1	weight %		

Seller makes no warranty as to the merchantability or fitness of this product for any particular use including, but not limited to, the production of white mineral oils or other mineral oils. Section 11 and 19.3 of Philips 66 Company's Base Oil General Terms and Conditions for Base Oil Sales shall govern in all respects. MAP 12.21-23

*Quarterly Analysis

Excel Paralubes 2800 Old Spanish Trail P.O Box 850 Westlake, LA 70669

[&]quot;Saturates = 100 - Aromatics (from in-house UV/HPLC correlation calc.)

^{***}Splash Blend formulations have no validated result only minimax ranges