TotalEnergies

Crude **AKPO BLEND**

Country Nigeria

TBP DISTILLATION

Density at 15°C, kg/m3	793.9
°API	46.7
Bbl/mt	7.937
Acidity, mg KOH/g	0.08
Sulphur, wt%	0.07
Hydrogen Sulphide, mg/kg	1
Mercaptan Sulphur, mg/kg	9
Viscosity, cSt at 10 °C	3.1
50 °C	1.4
Pour Point, °C	-6
Total Nitrogen, wt%	0.05
Wax, wt%	-
Wax Appearance Temperature, °C	-
RVP at 37.8 °C, kPa	-
Water, vol%	-
NaCl, mg/kg	-
Nickel, mg/kg	1.5
Vanadium, mg/kg	0.1
Iron, mg/kg	0.5
Mercury, µg/kg	-

Assay Date 22-Oct-20

	wt%	vol%
Ethane	0.0	0.1
Propane	0.7	1.1
Iso-Butane	1.0	1.4
n-Butane	1.7	2.2

°C	wt%	vol%	°C	wt%	vol%
080	12.4	15.5	460	91.4	93.0
090	14.5	17.8	480	92.6	94.0
100	17.0	20.5	500	93.7	94.9
120	23.2	27.1	520	94.7	95.8
140	30.1	34.3	540	95.6	96.5
160	35.8	40.2	560	96.3	97.1
180	40.7	45.2	580	97.0	97.6
200	45.5	50.0			
220	50.3	54.7			
240	55.1	59.4			
260	60.1	64.2			
280	65.1	69.0			
300	70.0	73.6			
320	74.5	77.9			
340	78.5	81.5			
360	81.8	84.5			
380	84.5	86.9			
400	86.7	88.9			
420	88.5	90.4			
440	90.0	91.8			

PROPERTIES OF TBP CUTS

LIGHT NAPHTHA	Cuts °C	Yield wt%	Yield vol %	Den 15°C kg/m3	S wt%	RSH mg/kg	RON clear	MON clear			Napht. vol%	Aro. vol%	RVP kPa			
	15-65	6.5	7.9	650	0.00	1	76.0	74.4			6.6	0.9	-			
	15-80	9.0	10.7	664	0.00	2	72.9	71.2			12.2	2.7	-			
HEAVY NAPHTHA	Cuts °C	Yield wt%	Yield vol %	Den 15°C kg/m3	S wt%	RSH mg/kg					Napht. vol%	Aro. vol%				
	80-150	20.8	22.0	747	0.00	7					44.5	10.7				
	80-175	27.2	28.5	753	0.00	7					44.8	11.4				
	100-150	16.1	16.9	753	0.00	7					46.6	11.0				
KEROSENE	Cuts °C	Yield wt%	Yield vol %	Den 15°C kg/m3	S wt%	RSH mg/kg	Smoke Pt mm	Acidity mgKOH/g	Cetane Index	Freez. Pt °C		Aro. vol%	Visc cSt 50°C			Flash Point
	150-230	19.6	19.6	788	0.01	8	26	0.02	45.4	-50		14.9	1.0			55.6
	175-230	13.2	13.1	795	0.01	8	26	0.03	47.7	-43		15.5	1.1			69.0
	150-250	24.5	24.4	793	0.01	8	26	0.03	47.3	-44		15.1	1.1			58.4
GASOIL	Cuts °C	Yield wt%	Yield vol %	Den 15°C kg/m3	S wt%		Anilin Point °C		Cetane Index	Cloud Pt C	CFPP C	Pour Pt C	Visc cSt 50°C	Visc cSt 100°C	UOPK	Flash Point
	175-400	47.1	44.9	830	0.06		73		54.0	1	-3	-8	2.4	1.1	12.0	78.9
	230-400	34.0	31.8	844	0.07		76		57.5	7	5	3	3.4	1.5	12.0	104.1
	230-375	31.2	29.3	840	0.07		76		58.1	4	1	-1	3.0	1.4	12.0	103.1
VACUUM DISTILLATE	Cuts °C	Yield wt%	Yield vol %	Den 15°C kg/m3	S wt%	Conrad. wt%	Anilin Point °C	Ni mg/kg	Va mg/kg	Total N wt%	Bas N mg/kg	Pour Pt C	Visc cSt 100°C	Visc cSt 150°C	UOPK	Asp C7 wt %
	375-550	12.1	10.4	917	0.21	0.1	88	0	0	0.19	690	47	8.5	3.2	11.9	0.0
	375-565	12.6	10.8	919	0.21	0.2	88	0	0	0.20	727	48	9.0	3.3	11.9	0.0
	375-580	13.1	11.2	921	0.22	0.3	89	1	0	0.21	763	49	9.5	3.5	11.9	0.0
	400-580	10.3	8.8	929	0.23	0.3	90	1	0	0.23	891	52	12.5	4.2	11.9	0.0
RESIDUE	Cuts °C	Yield wt%	Yield vol %	Den 15°C kg/m3	S wt%	Conrad. wt%	Acidity mgKOH/g	Ni mg/kg	Va mg/kg	Total N wt%		Pour Pt C	Visc cSt 100°C	Visc cSt 150°C	Pene mm/10	Asp C7 wt%
	> 375	16.1	13.6	935	0.26	3.3	0.2	9	1	0.28		39	17	5	-	0.0
	> 550	4.0	3.2	994	0.44	13.1	0.2	36	3	0.56		59	571	55	114	0.0
	> 565	3.5	2.8	999	0.46	14.8	0.2	41	3	0.59		60	921	75	88	0.0
	> 580	3.0	2.4	1004	0.48	16.7	0.2	46	4	0.61		61	1560	105	71	0.0