

22777 Springwoods Village Parkway,
Spring, TX 77389

DALIA16X

	Whole crude	Butane and Lighter IBP - 60F	Lt. Naphtha C5 - 165F	Hvy Naphtha 165 - 330F	Kerosene 330 - 480F	Diesel 480 - 650F	Vacuum Gas Oil 650 - 1000F	Vacuum Residue 1000F+
Cut volume, %	100.0	0.2	0.8	5.6	12.1	19.3	37.3	24.7
API Gravity,	23.7	122.8	82.9	50.6	37.2	30.2	21.8	10.8
Specific Gravity (60/60F),	0.912	0.556	0.660	0.777	0.839	0.875	0.923	0.995
Carbon, wt %	86.7	82.5	84.1	85.9	86.9	86.8	86.8	86.6
Hydrogen, wt %	12.7	17.5	15.9	14.1	13.1	12.9	12.5	12.2
Pour point, F	(54.4)			(138.4)	(83.7)	(44.1)	24.2	98.9
Neutralization number (TAN), MG/GM	1.545	0.473	0.501	0.683	1.402	2.557	1.982	0.476
Sulfur, wt%	0.485	0.000	0.003	0.016	0.063	0.218	0.493	0.929
Viscosity at 20C/68F, cSt	104.3	0.4	0.5	0.9	2.1	8.1	417.6	7,029,027.2
Viscosity at 40C/104F, cSt	37.1	0.4	0.5	0.7	1.6	4.7	100.7	261,969.8
Viscosity at 50C/122F, cSt	24.6	0.3	0.4	0.7	1.4	3.7	57.6	70,267.6
Mercaptan sulfur, ppm	7.0	1.4	4.7	3.3	2.0	1.3	0.3	0.0
Nitrogen, ppm	2,488.8	-	-	0.3	6.2	73.5	1,250.6	7,424.3
CCR, wt%	4.8						0.2	17.5
N-Heptane Insolubles (C7 Asphaltenes), wt%	0.9						-	3.2
Nickel, ppm	18.1							67.3
Vanadium, ppm	8.0							29.7
Calcium, ppm	12.0							
Reid Vapor Pressure (RVP) Whole Crude, psi	1.8							
Hydrogen Sulfide (dissolved), ppm	-							
Salt content, ptb	18.6							
Paraffins, vol %	13.8	100.0	72.1	21.3	21.8	19.2	12.6	2.6
Naphthenes, vol %	42.9	-	27.9	69.8	47.0	54.3	46.1	21.8
Aromatics (FIA), vol %	43.4	-	-	9.0	31.2	26.6	41.3	75.6
Distillation type, TBP								
IBP, F	108.2		61.1	166.9	331.0	480.9	651.6	1,001.4
5 vol%, F	297.5		69.5	181.9	340.3	489.3	666.3	1,013.9
10 vol%, F	381.1		75.4	196.2	350.1	498.5	682.6	1,028.3
20 vol%, F	492.2		96.0	220.0	368.3	516.3	715.7	1,058.4
30 vol%, F	581.2		104.7	239.6	385.2	533.6	749.0	1,091.0
40 vol%, F	667.2		122.4	256.4	400.9	550.6	782.6	1,126.5
50 vol%, F	756.0		131.3	271.4	415.6	567.3	816.5	1,165.7
60 vol%, F	847.1		139.3	285.0	429.6	583.8	850.9	1,209.7
70 vol%, F	943.5		146.5	297.4	442.9	600.3	886.0	1,259.6
80 vol%, F	1,055.0		153.1	309.0	455.7	616.8	922.2	1,318.2
90 vol%, F	1,207.1		159.3	319.8	468.0	633.3	959.9	1,390.6
95 vol%, F	1,316.5		162.1	324.9	474.1	641.6	979.6	1,435.8
EP, F	1,470.8		164.7	329.5	479.4	649.2	997.9	1,504.4
Freeze point, F				(126.6)	(73.1)	(31.9)		
Smoke point, mm				28.2	18.4	10.5		
Naphthalenes (D1840), vol%					3.1	9.2		
Viscosity at 100C/212F, cSt	5.9	0.3	0.3	0.5	0.9	1.6	9.0	812.3
Viscosity at 150C/302F, cSt	2.5	0.2	0.3	0.4	0.6	1.0	3.2	72.3
Cetane Index 1990 (D4737),				25.7	33.0	45.2		
Cloud point, F				(134.5)	(79.1)	(40.8)		
Aniline pt, F					125.0	147.4	187.6	