

Certificate of Quality

Sample Source: TK1121
 Sample Date/Time: 04-Jun-18/00:30:00 hrs
 Blend: TK1121-019
 Sample ID: 20047757

Product: GASOIL 0.05% SULFUR
 Formula: GPIR0500A0 AUTOMOTIVE DIESEL FUEL (500PPM S)

PROPERTY	TEST METHOD	SPEC (Min-Max)	RESULT	UNITS
Appear @ 25DegC, Haze Level	ASTM_D4176	Max. 2	1	
* Total Aromatic Hydrocarbons	IP_391	>=19.0	22.4	wt%
* PolycyclicAromaticHydrocarbons	IP_391	<=11	2	wt%
** Ash	ASTM_D482	<=0.01	<0.01	wt%
Water & Sediment In Distillate	ASTM_D2709	<=0.05	0.01	vol%
** Micro Carbon Residue(10%Bt)	ASTM_D4530	<=0.20	<0.01	wt%
Cetane Index	ASTM_D976	>=46	57	
Cloud Point By D2500	ASTM_D2500	<=10	-1	deg_C
ASTM Color	ASTM_D1500	Max. 2.0	10.5	
Conductivity	ASTM_D2624	150-600	<1	pS/m
Copper Corrosion (3Hrs At 100 Deg.C)	ASTM_D130	Max. 1	1A	
Density @ 15 Deg.C, kg/m3	ASTM_D4052	820.0-860.0	835.1	kg/m3
Dist. IBP	ASTM_D86		200.4	deg_C
Dist. 10% Recovered	ASTM_D86		244.8	deg_C
Dist. 50% Recovered	ASTM_D86		290.9	deg_C
Dist. 90% Recovered	ASTM_D86		337.8	deg_C
Dist. 95% Recovered	ASTM_D86	<=371	350	deg_C
Dist. FBP	ASTM_D86		358.2	deg_C
Fatty Acid Methyl Ester (FAME)	DECLARED	<=0.1	<0.1	vol%
Flash Point - PMCC	ASTM_D93	>=64.0	88.0	deg_C
* Filter Blocking Tendency - Proc_A	IP_387	<=2.0	1.0	
Lubricity	IP_450	<=460	271	micron
** Total Acid No	ASTM_D974	<=0.25	<0.02	mgKOH/g
** Strong Acid No.(Mineral Acid)	ASTM_D974	Max. NIL	NIL	mgKOH/g
Odor-indirect	ODOR	MERCHANTABLE	MERCHANT	
** Oxidation Stability - 16Hrs	ASTM_D2274	<=2.5	0.4	mg/100ml
Pour Point	ASTM_D97	<=9	<-21	deg_C
* Total Sulfur (mg/kg = wtppm)	ASTM_D5453	<=500	7	mg/kg
Viscosity @ 40 Deg.C	ASTM_D445	2.0-4.5	3.7	cSt
Lubricity Additive (Infineum R-G55)	DECLARED	<=200	101	mg/kg
Flow Improver Additive	DECLARED		522.1	mg/l
Volume of STADIS 450 dosed	DECLARED		0.0	mg/l
flow improver type	DECLARED		R567K	
manufacturer, flow improver	DECLARED		INFINEUM	
manufacturer, lubricity	DECLARED		INFINEUM	