



CERTIFICATE OF ANALYSIS

TOLUENE

<u>Method</u>	<u>Test</u>	<u>Min</u>	<u>Max</u>	<u>Result</u>	<u>Units</u>
ASTM D2380	Impurities in Aromatic Hydrocarbons by GC				
	Toluene	99.7		99.92	%wt
	Toluene			99.43	%vol
	Benzene			45	ppmw
	Benzene			0.005	%wt
	Benzene			0.005	%vol
	Non-Aromatics		1.2	0.068	%wt
	Non-Aromatics		1.5	0.083	%vol
	Total Aromatics			0.111	%wt
	Total Aromatics			0.111	%vol
	Ethylbenzene			33	ppmw
	Xylenes			33	ppmw
	1,4 Dioxane		10	< 10	ppmw
ASTM D848	Acid Wash Color				
	Acid Wash Color			1+	
	Acid Wash Color Oil Layer			No Change In Color	
ASTM D849	Copper Strip Corrosion		Pass with 1A/1B	1A	
Visual	Visual Appearance	Clear & Free		Clear and Free	
ASTM D1209	Platinum Cobalt Color		20	< 5	
ASTM D850	Distillation of Aromatic Hydrocarbons				
	Distillation Range to include 110.6°C		1.0	0.1	°C
	IBP			110.5	°C
	Dry Point			110.6	°C
ASTM D847	Acidity in mg NaOH/100mL			No Free Acid	
ASTM D4052	Relative Density 15.56/15.56°C			0.8714	
ASTM E1064*	Water Content			73	ppmw
ASTM D5453	Total Sulfur Content			< 1	ppmw
ASTM D4629*	Nitrogen			< 1	ppmw
ASTM D1353	Nonvolatile Residue			< 1	mg nonvolatile residue/100mL