

Product FIR NEEDLE ESSENTIAL OIL

Lot # MD97781

Date of MFG21-SEP-21Shelf Life2 years

Properties	Specifications	Results	
Optical Rotation	≥ -45 ≤ -33	-35.52	
Refractive Index @20C	≥ 1.4680 ≤ 1.4730	1.4700	
Specific Gravity @20 C	≥ 0.9010 ≤ 0.9150	0.9047	
Specific Gravity @25 C	≥ 0.8980 ≤ 0.9120	0.9017	
Total Esters	≥ 44 ≤ 32	32	
Appearance		Conform	
Odor		Conform to standard	
Taste		Conform	
Flash Point		105/41	



Product FIR NEEDLE ESSENTIAL OIL

Lot # R-107770 **Shelf Life** 2 years

Properties	Specifications	Results	
Color	Colorloss liquid	Conform	
Color	Colorless liquid	Conform	
Analysis by GC		Conform to standard	
Odor Description	Characteristic of pine needle oil	Conform	
Refractive Index 20		1.4690	
Specific Gravity 25		0.9000	



Product FIR NEEDLE ESSENTIAL OIL

Lot # 01004482 **Shelf Life** 2 years

Properties	Specifications	Results
Appearance	Liquid	Conforms
Odor	Characteristic	Conforms to Standard
Color	Colorless	Conforms
Refractive Index 20°C	1.4680 - 1.4740	1.4694
Specific Gravity 20/200 C	0.900 - 0.9200	0.9043
Flash Point ⁰ F (Closed Cup)	109 Minimum	Conforms



Product FIR NEEDLE ESSENTIAL OIL

Lot # 11835719 **Shelf Life** 1.5 years

Properties	Specifications	Results	
Appearance	Liquid	Conforms	
Odor	Characteristic	Conforms to Standard	
Color	Colorless	Conforms	
Refractive Index 20°C	1.4680 - 1.4740	1.4697	
Specific Gravity 20/20° C	0.900 - 0.9200	0.9027	
Flash Point ⁰ F (Closed Cup)	109 Minimum	Conforms	