

## Quality Department - Product Specification

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### TRIETHYL CITRATE / ETHANOL TINCTURE

Measure Description	Method Description	Specification
Density (in air), Kg/L, at 20°C	Methods specified in the Revenue Canada Customs & Excise Alcoholometric Tables	0.8154 to 0.8170
Specific Gravity (in air), at 20/20°C	Calculation	0.8177 to 0.8193
Triethyl Citrate Content, v/v%	GC Analysis	1.79 to 2.01
Ethyl Alcohol Content, v/v%	Calculation	93.1 to 93.5
Miscibility with Water	Visual	Complete

### Comments:

Composition:  
 1.0 US gallons ethyl alcohol 190 proof min.  
 2.48 +/- 0.14 ounces of natural triethyl citrate (equivalent to 0.0194 +/- 0.0011 US gallons)

Specification for ethyl alcohol used in the formulation of the product:  
 Acids as Acetic Acid - 0.0020g/100mL max.  
 Esters as Ethyl Acetate - 0.0015g/100mL max.  
 Aldehydes as Acetaldehyde - 0.0007g/100mL max.  
 Higher Alcohols - 0.0040g/100mL max.  
 Nonvolatile Residue - 0.0020g/100mL max.

### Specification:

QCSPEC #: QSPEC000120, Version #: QV000000, Approver: KAITLIN.SMITH, Effective Date: 16-Sep-2019