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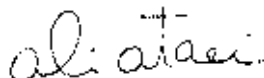
## Certificate of Analysis

Product Name:

Cinnamon oil, ceylon type - FCC

**Product Number:** W229202  
**Batch Number:** MKBS5504V  
 Brand: ALDRICH  
 CAS Number: 8015-91-6  
 MDL Number: MFCD00130805  
 Quality Release Date: 19 AUG 2014  
 Expiration Date: JUL 2019

Test	Specification	Result
Appearance (Color)	Yellow to Dark Brown	yellow
Appearance (Form)	Liquid	Liquid
Refractive index at 20 °C	1.529 - 1.537	1.533
Infrared Spectrum	Conforms to Structure	Conforms
Specific Rotation	-2.0 - 1.0 °	0.7 °
Assay	80.0 - 88.0 %	84.0 %
Specific Gravity	1.030 - 1.050	1.042
Solubility (Turbidity) 1ml/1.5ml 70% Ethanol	Clear	Clear
Arsenic (As)	≤ 3.0 ppm	< 1.0 ppm
Cadmium (Cd)	≤ 1.0 ppm	< 1.0 ppm
Mercury (Hg)	≤ 1.0 ppm	< 1.0 ppm
Lead (Pb)	≤ 10.0 ppm	< 1.0 ppm
Expiration Date Period 5 Years	-----	-----



Ali Ataei, Manager  
 Quality Control  
 Milwaukee, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.