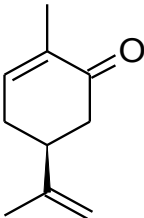


Certificate of Analysis

Structure: <div style="text-align: center;">  </div>	
Name	(S)-(+)-Carvone
Synonym(s)	(S)-5-isopropenyl-2-methyl-2-cyclohexenone, <i>p</i> -mentha-6,8-dien-2-one, (5 <i>S</i>)-2-methyl-5-(prop-1-en-2-yl)cyclohex-2-en-1-one
Epichem Item #	EPL-AA162 Batch 1
CAS #	2244-16-8
Molecular Formula	C ₁₀ H ₁₄ O
Molecular Weight	150.22 g/mol
Purity	99.4% (weight/weight) 99.7% by HPLC at 220nm (assuming all components detected with the same response factor). Trace impurities detected by ¹ H NMR analysis 0.26% water by Karl Fischer method. <0.1% ash.
Combustion Analysis	Required (%): C:80.0; H:9.4; N:0.0. Found (%): C:79.9; H:9.5.
Appearance	Pale yellow oil
Optical Rotation	+54.3° ([α] _{25.7/D} , chloroform)
Date of Manufacture	15 December 2014
Storage Requirements	Hygroscopic. Protect from heat, light and moisture.
Special Precautions	This compound is for laboratory use only. Its toxicological properties may not have been fully established. It should be handled only by suitably qualified personnel.