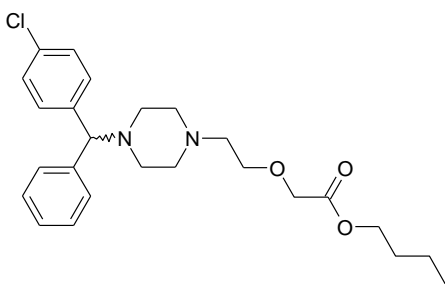


## Certificate of Analysis

**Structure:**



Name	Cetirizine n-butyl ester
Synonym(s)	n-butyl (RS)-2-(4-((4-chlorophenyl)phenylmethyl)-1-piperazinyl)ethoxy)acetate
Epichem Item #	EPL-AA95 Batch 1
CAS #	Not available
Molecular Formula	C <sub>25</sub> H <sub>33</sub> ClN <sub>2</sub> O <sub>3</sub>
Molecular Weight	445.01 g/mol
Purity	99.7% (weight/weight) 99.9% by HPLC at 220nm (assuming all components have the same response factor). No significant impurities detected by <sup>1</sup> H NMR analysis. 0.2% water by Karl-Fischer method. 0.02% ash.
Combustion Analysis	Required (%): C:67.5; H:7.5; N:6.3. Found (%): C:67.7; H:7.7; N:6.6.
LC/MS Analysis	[M+H] <sup>+</sup> = 445.3 amu
Appearance	Light orange viscous oil
Date of Manufacture	13 July 2011
Storage Requirements	Protect from heat, light and moisture
Special Precautions	<b>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.</b>

**Robert Gauci**  
**General Manager**  
 9 August 2011