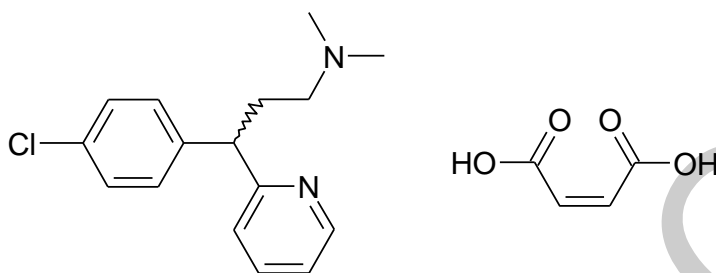


Certificate of Analysis

Structure:



Name	chlorpheniramine maleate
Synonym(s)	(<i>RS</i>)-3-(4-chlorophenyl)- <i>N,N</i> -dimethyl-3-(pyridin-2-yl)propan-1-amine maleate
Epichem Item #	EPL-AA86 Batch 1
CAS #	113-92-8
Molecular Formula	C ₁₆ H ₁₉ ClN ₂ .C ₄ H ₄ O ₄
Molecular Weight	390.87 g/mol
Purity	99.7% (weight/weight) 100.0% by HPLC at 220nm and 266nm (assuming all components detected with the same response factor). No significant impurities detected by ¹ H NMR analysis. 0.3% water by Karl-Fischer analysis. 0.0% ash.
Microanalysis	Required (%): C:61.5; H:5.9; N:7.2. Found (%): C:61.5; H:6.0; N:7.0.
Appearance	Off-white powder
Melting Point	132.9-134.3°C
Date of Manufacture	14 March 2011
Storage Requirements	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.

Robert Gauci
General Manager
22 March 2011