

Lot: 1090613



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Certificate of Analysis

Product : Metformin Hydrochloride BP/ PhEur/USP
Batch No. : BMS0540213 Mfg. Date : February - 2013
Batch Size : 2002.20 Kg Exp. Date : January - 2018
Qty. Supplied : 2000.00 Kg Date of Sampling : March 26, 2013
Qty. Sampled : 100 g Date of analysis : March 27, 2013
Mfg. Lic. No. : KD-242

Sr. No.	Tests	Observations	Specifications
01.	Appearance	White Crystals	White Crystals
02.	Solubility	Freely soluble in water, slightly soluble in alcohol	Freely soluble in water, slightly soluble in alcohol, practically insoluble in acetone and in methylene chloride.
03.	Identification A. Melting point B. IR Spectrum C. By TLC D. Colour test E. Chlorides	224°C Concordant Conforms Complies Positive	222 °C to 226 °C Infrared absorption spectrum of sample should concordant with that of Metformin hydrochloride working standard. The principal spot in the chromatogram obtained with the test solution should be similar in position, colour and size to the principal spot in the chromatogram obtained with reference solution. A pink colour should develop Should be positive
04.	Appearance of solution (10% solution in water)	Solution is clear and colourless	Should be clear and colourless
05.	Related substances (by HPLC) a) Impurity A b) Cyanoguanidine c) Other impurities	0.001% 0.043% 0.071%	Not more than 0.02% Not more than 0.1% Not more than 0.3%
06.	Heavy metals	Less than 10 ppm	Not more than 10 ppm
07.	Loss on drying at 105°C for 5 hours	0.18%	Not more than 0.5 %
08.	Sulphated ash	0.04%	Not more than 0.1 %
09.	Assay (% on dry basis)	99.3%	98.5% - 101.0%
10.	Additional Test Residual Solvent Methanol Xylene	199 ppm Not detected	NMT 1000 ppm NMT 500 ppm

Remarks: Product Complies with B.P-2011 / PhEur - 7th Edition / USP-33 Customer Specifications COS NO.: R1-CEP 1998-079-Rev. 04

Declaration: Product is free from animal derived materials and is manufactured from synthetic sources only.

Analysed By:

Checked By:

Approved By:

S. K. Datta
S. K. Datta
Analyst

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