

G. AMPHRAY LABORATORIES

E-mail : info@amphray.com

Sambava Chambers, 4th Floor, Sir P. M. Road, Mumbai – 400 001, INDIA.

Web : www.amphray.com

CERTIFICATE OF ANALYSIS

Name of Product	:	PIPERAZINE DI-HYDROCHLORIDE			
Batch No.	:	PDHCL-002/08	Q. C. No.	:	G-07/1583
Date of Manufacture	:	March, 2007	Date of Analysis	:	07.03.2007
Date of Expiry	:	February, 2012	Sample Size	:	100 Grams
Batch Size	:	1,300 KGS.			

RESULTS OF ANALYSIS

TEST	OBSERVATION	LIMITS
Appearance	Complies.	A white free flowing granular powder.
% Assay (On Anhydrous Basis)	99.71 %	NLT : 98.0 % w/w & NMT : 101.5 % w/w
Content of Active Piperazine	52.77 %	Between 51.1 % to 55.0 %
Water %	3.78 %	Max. 6.0 % w/w
Heavy Metals	Complies	Less than 20 ppm
Primary Amine	0.03 %	Max. 0.20 %
pH (10 % Soln.)	3.84	Between 3.0 to 4.2
Bulk Density	0.618 kg / m	Approx. 0.625 kg / m

REMARKS : THE ABOVE SAMPLE COMPLIES AS PER IN-HOUSE SPECIFICATIONS.

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AUTHORISED SIGNATORY