

**CERTIFICATE OF ANALYSIS**

PRODUCT : DILTIAZEM HCl (MICRONISED)	COMPENDIA : Ph.Eur.-7.7
BATCH NO. : DIL/M-07314	QUANTITY : 500 Kg
MFG. DATE : MARCH.2014	EXP. DATE : FEBRUARY.2019
QC A.R. No.: FP/088/2014	
TESTS	RESULTS
	SPECIFICATIONS

01. CHARACTERS**i. Appearance**

A white, crystalline powder.

White or almost white, crystalline powder.

ii. Solubility

Freely soluble in water, in methanol and in methylene chloride, slightly soluble in anhydrous ethanol.

Freely soluble in water, in methanol and in methylene chloride, slightly soluble in anhydrous ethanol.

iii. Melting point

Melted at 213°C with decomposition.

Melts at about 213° C with decomposition.

02. IDENTIFICATION

IR Absorption

Concordant with working standard

IR Absorption spectrum of the sample is concordant with that of the Diltiazem hydrochloride CRS / working standard.

CHLORIDES

Positive

It gives reaction to chlorides. Clear and colourless.

03. APPEARANCE OF SOLUTION

Clear and colorless

04. pH

4.9

4.3 to 5.3

05. SPECIFIC OPTICAL ROTATION

+116°

+ 115° to + 120°

06. RELATED SUBSTANCES

i. Impurity F

Not Quantified

Not more than 0.3% w/w

ii. Unspecified Impurities

Not Quantified

Not more than 0.10% w/w each

iii. Total Impurities

Not Quantified

Not more than 0.30% w/w

07. HEAVY METALS

Less than 10 ppm

Not more than 10 ppm

08. LOSS ON DRYING

0.09%

Not more than 0.50% w/w

09. SULPHATED ASH

0.03%

Not more than 0.10% w/w

10. ASSAY (By Titration)

100.19%

Not less than 98.50% w/w and

(On dried basis)

Not more than 101.00% w/w

ADDITIONAL TEST:**PARTICLE SIZE**

100%

30 Microns

100% Less than 100 Microns

Surface Area1.71 m²/gm

For Information

RESIDUAL SOLVENTS (BY GC-HS)

Toluene

283 ppm

Not more than 750 ppm

Methanol

147 ppm

Not more than 500 ppm

Isopropyl Alcohol

10 ppm

Not more than 1000 ppm

Ethyl Acetate

0 ppm

Not more than 2500 ppm

Bulk Density

0.29 g/ml

For Information

Tapped Density

0.52 g/ml

For Information

REMARKS: The product conforms to **Ph.Eur.-7.7 & Customer's Specifications**Prepared by
Executive-QCChecked by
Manager-QCApproved by
General Manager-QC

Piramal Enterprises Limited

Factory: Digwal Village Kohir Mandal Medak Dist 502321 Andhra Pradesh India

T +91 8451 287508 F +91 8451 287553

Admin. Off: 5-9-30 Road # 4 Basheerbagh Palace Colony Basheerbagh Hyderabad 500 063 India

T +91 40 2322 6719 F +91 40 2326 6041 / 82

Registered Office: Piramal Tower Peninsula Corporate Park Ganpatrao Kadam Marg Lower Parel Mumbai 400 013

T +91 22 3046 6666 F +91 22 2493 6708

W www.piramalhealthcare.com