



INDOFINE Chemical Company, Inc.

121 Stryker Lane, Bldg. 30, Suite 1 • Hillsborough, NJ 08844 • U.S.A.

Phone: (908) 359-6778 • FAX: (908) 359-1179

website: www.indofinechemical.com

e-mail: chemical@indofinechemical.com

CERTIFICATE OF ANALYSIS

Catalog Number: H-008

Product Name: **HARMOL HYDROCHLORIDE DIHYDRATE**

Cas Number: [149022-16-2]

Lot Number: 1012094

Source: Peganum harmala seeds

Chemical Formula: $C_{12}H_{10}N_2O \cdot HCl \cdot 2H_2O$

Molecular Weight: 270.72

Melting Point 134-136°C

TLC: Chloroform:Methanol (8:2) Iodine active

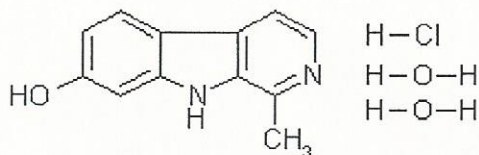
Solubility: Soluble in DMSO

Appearance: White powder

Storage: Cool dry place

Moisture(KF): 0.60%

Purity : 99.99%





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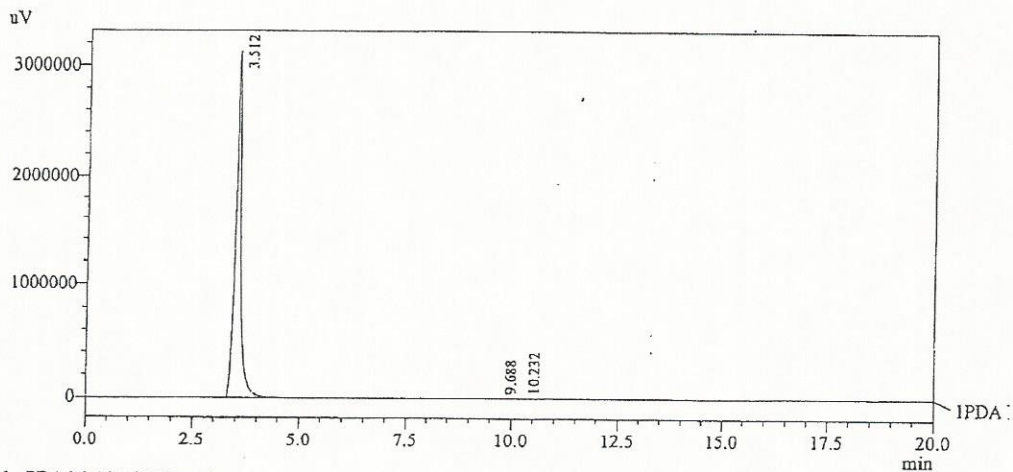
HPLC ANALYSIS

Acquired by : Madhuri
Sample Name : Harmol HCl
Sample ID :
Injection Volume : 20 uL
Data Filename : 301110H.lcd
Method Filename : Linear Isocratic.M.lcm

Cat. No.: H-008
Product name: Harmol Hydrochloride dihydrate
Lot No.: 1012094

Description:
Column : Inertsil C-18, 250X4.6mm 5.0µm
Flow : 0.5000ML/min.
Mobile Phase : A(20%of 0.05%of TFA) B(80% ACN)

Chromatogram



1 PDA Multi 1 / 360nm 4nm

PeakTable

PDA Ch1 360nm 4nm

Peak#	Ret. Time	Area	Height	Area %
1	3.512	28867143	3141420	99.992
2	9.688	1342	130	0.005
3	10.232	1106	82	0.004
Total		28869591	3141632	100.000



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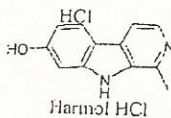
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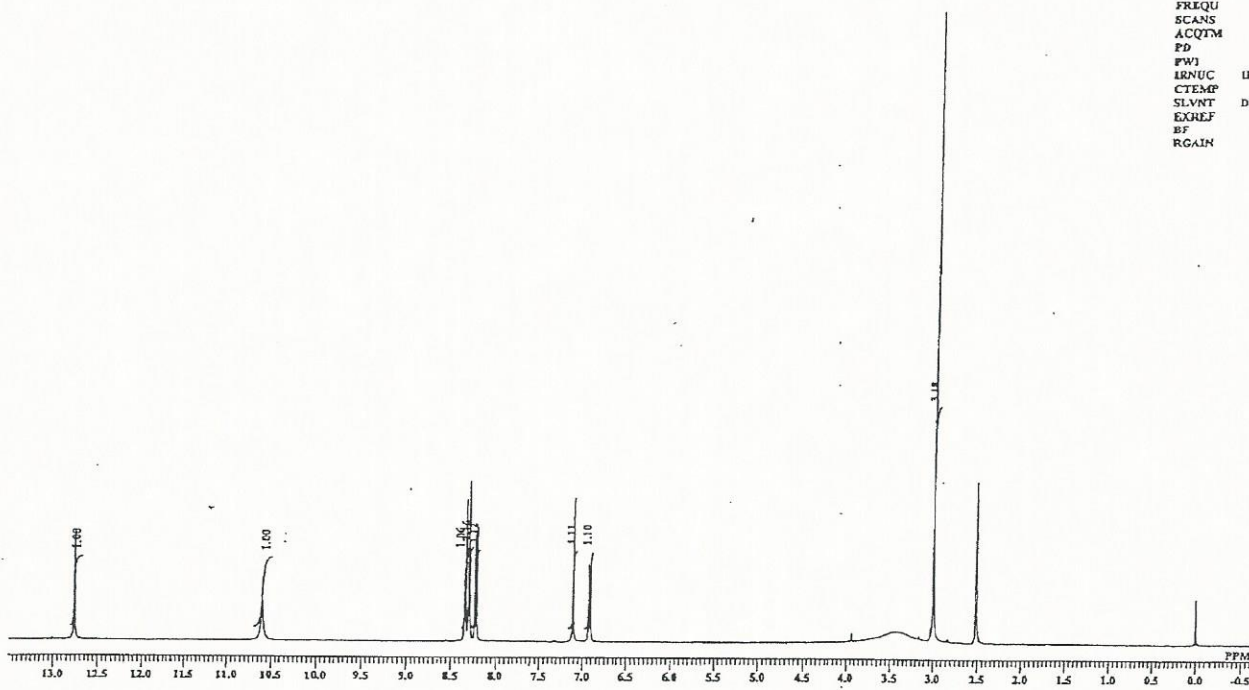
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Cat. No.: H-008
Product name: Harmol Hydrochloride dihydrate
Lot No.: 1012094

SR/2 1H NMR DMSO-D6



OBNUC	1H
EXMOD	NON
OBFRQ	399.65 MHz
OBSET	124.00 MHz
OBFIN	10500.00 Hz
POINT	6533
FREQU	7992.01 Hz
SCANS	1
ACQTM	1.2001 sec
PD	3.0000 sec
PW1	5.60 usec
IRNUC	1H
CTEMP	22.9 c
SLVNT	DMSO
EXREF	0.00 ppm
HF	0.50 Hz
RGAIN	17





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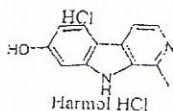
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SR/2 1H NMR DMSO-D6

ORNUC	1H
EXMOD	NON
OBFRQ	399.65 MHz
OBSET	124.00 KHz
OBFIN	10500.00 Hz
PODNT	65536
FREQU	7992.01 Hz
SCANS	8
ACQTM	8.2002 sec
PD	3.0000 sec
PW1	5.60 vsec
IRNUC	1H
CTEMP	22.5 c
SLVNT	DMSO
EXREF	0.00 ppm
RF	0.50 Hz
RGAIN	17

