



# INDOFINE Chemical Company, Inc.

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

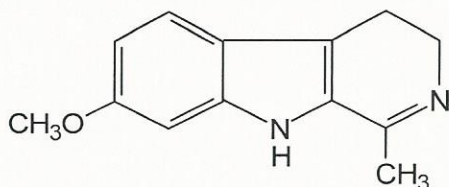
Phone: (908) 359-6778 • FAX: (908) 359-1179

website: [www.indofinechemical.com](http://www.indofinechemical.com)

e-mail: [chemical@indofinechemical.com](mailto:chemical@indofinechemical.com)

## CERTIFICATE OF ANALYSIS

<u>Catalog Number</u>	H-001
<u>Product Name:</u>	<b>HARMALINE</b> (3,4-Dihydroharmin)
<u>CAS Number:</u>	[304-21-2]
<u>Lot Number:</u>	1012088
<u>Chemical Formula:</u>	C <sub>13</sub> H <sub>14</sub> N <sub>2</sub> O
<u>Molecular Weight:</u>	214.27
<u>Melting Point:</u>	239-241°C
<u>Appearance:</u>	Pale yellow crystalline powder
<u>Solubility:</u>	Soluble in DMSO
<u>TLC:</u>	Chloroform: Methanol (8:2)
<u>Moisture(KF):</u>	0.20%
<u>Storage:</u>	Store at 2-8°C
<u>Purity(HPLC):</u>	99.99%





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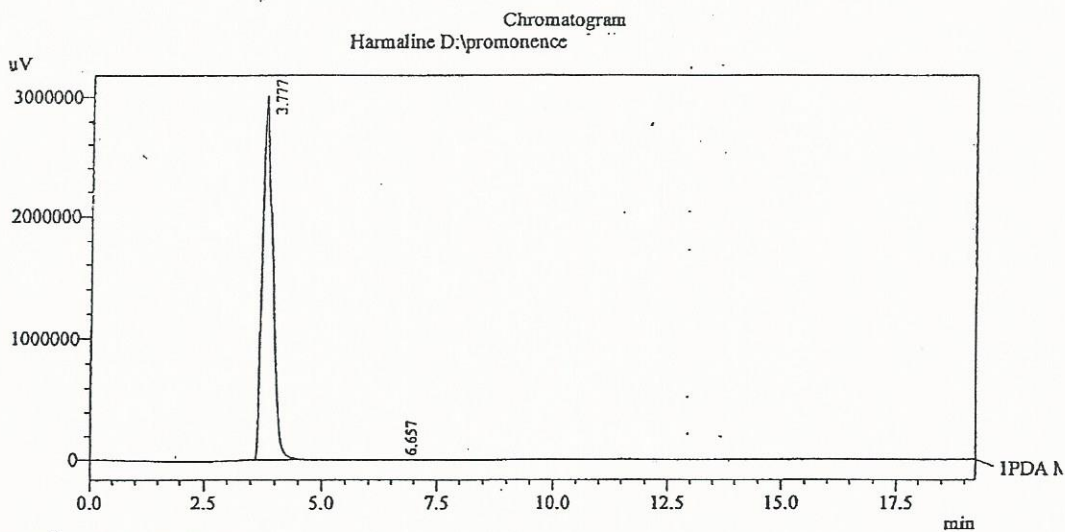
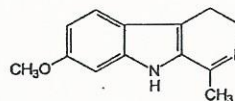
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## HPLC ANALYSIS

Acquired by : Madhuri  
Sample Name : Harmaline  
Sample ID :  
Injection Volume : 20 uL  
Data Filename : 091010C.lcd  
Method Filename : Linear Isocratic.M.lcm

Cat. No.: H-001  
Product name: Harmaline  
Lot No.: 1012088

Description:  
Column : Inertsil C-18, 250X4.6mm 5.0µm  
Flow : 0.500ML/min.  
Mobile Phase : A(20% of 0.05% of TFA) : B( 80% ACN)



PeakTable

PDA Ch1 360nm 4nm

Peak#	Ret. Time	Area	Height	Area %
1	3.777	44567811	3016424	99.998
2	6.657	1114	93	0.002
Total		44568924	3016516	100.000



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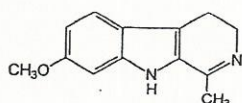
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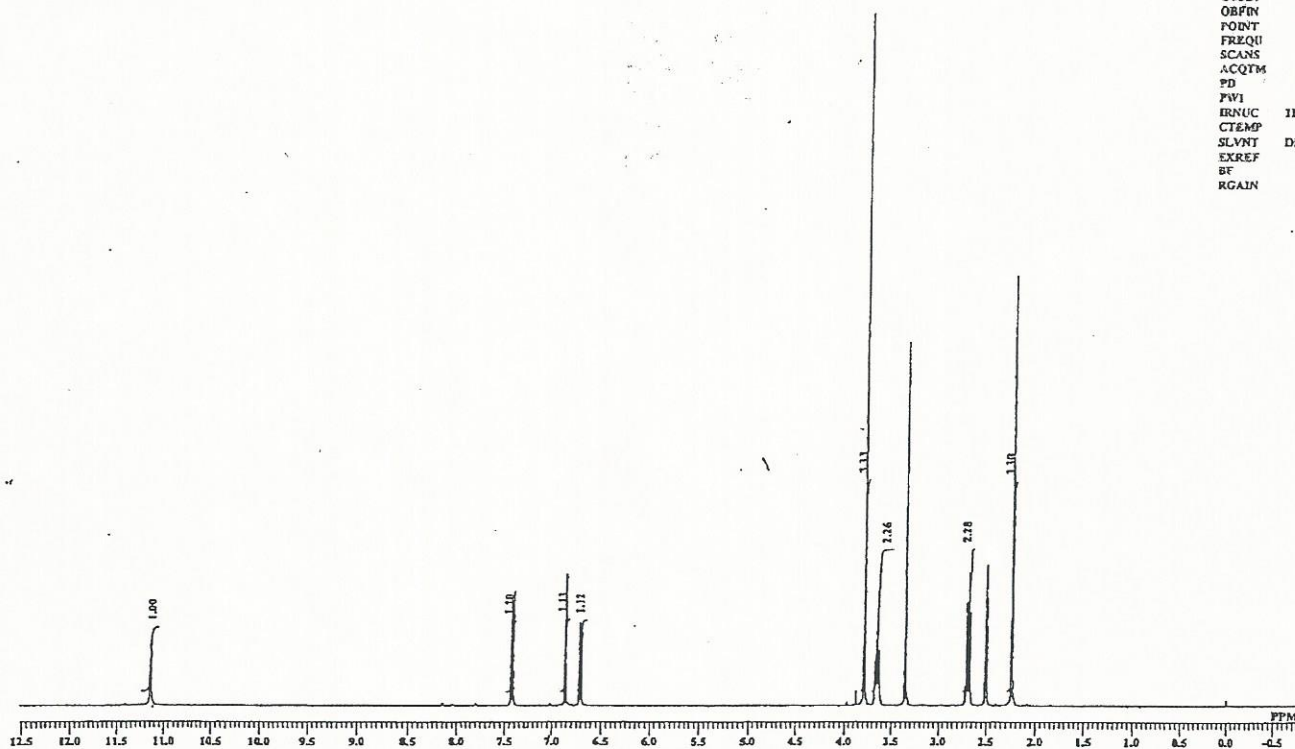
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Lot No.: 1012088



SR/3 1H NMR DMSO-D6



Q8NUC 1H  
EXMOD NON  
OBFRQ 399.65 MHz  
OBSET 124.80 kHz  
OBFIN 10500.00 Hz  
POINT 6534  
FREQU 7992.01 Hz  
SCANS 8  
ACQTM 8.2002 sec  
PD 3.0000 sec  
PWI 5.60 usec  
IRNUC 1H  
CTEMP 22.9 c  
SLVNT DMSO  
XKREF 0.00 ppm  
BF 0.50 Hz  
RGAIN 16



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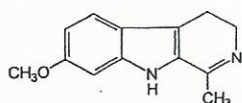
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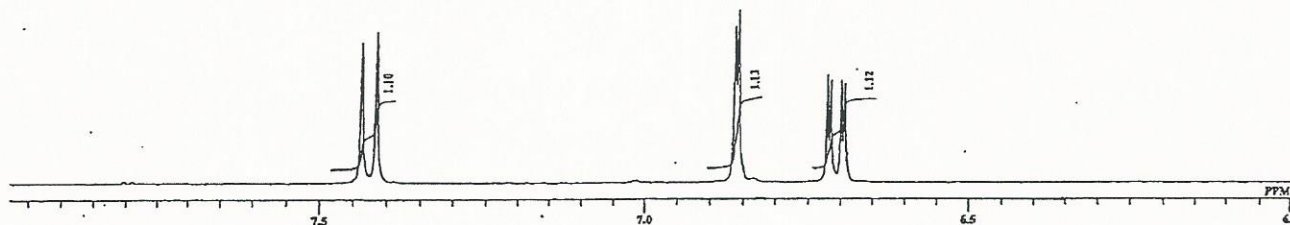
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Product name: Harmaline  
Lot No.: 1012088



SR3 1H NMR DMSO-D6

ORNUC	1H
EXMOD	NON
ORFRQ	399.65 MHz
ORSET	124.00 KHz
ORFEN	10500.00 Hz
POINT	65536
FREQU	7992.01 Hz
SCANS	8
ACQTM	8.2002 sec
PD	3.0000 sec
PW1	5.60 msec
IRNUC	1H
CTEMP	22.9 c
SUNY	DMSO
EXREF	0.00 ppm
BF	0.50 Hz
RGAIN	16





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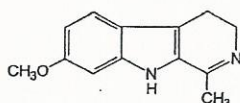
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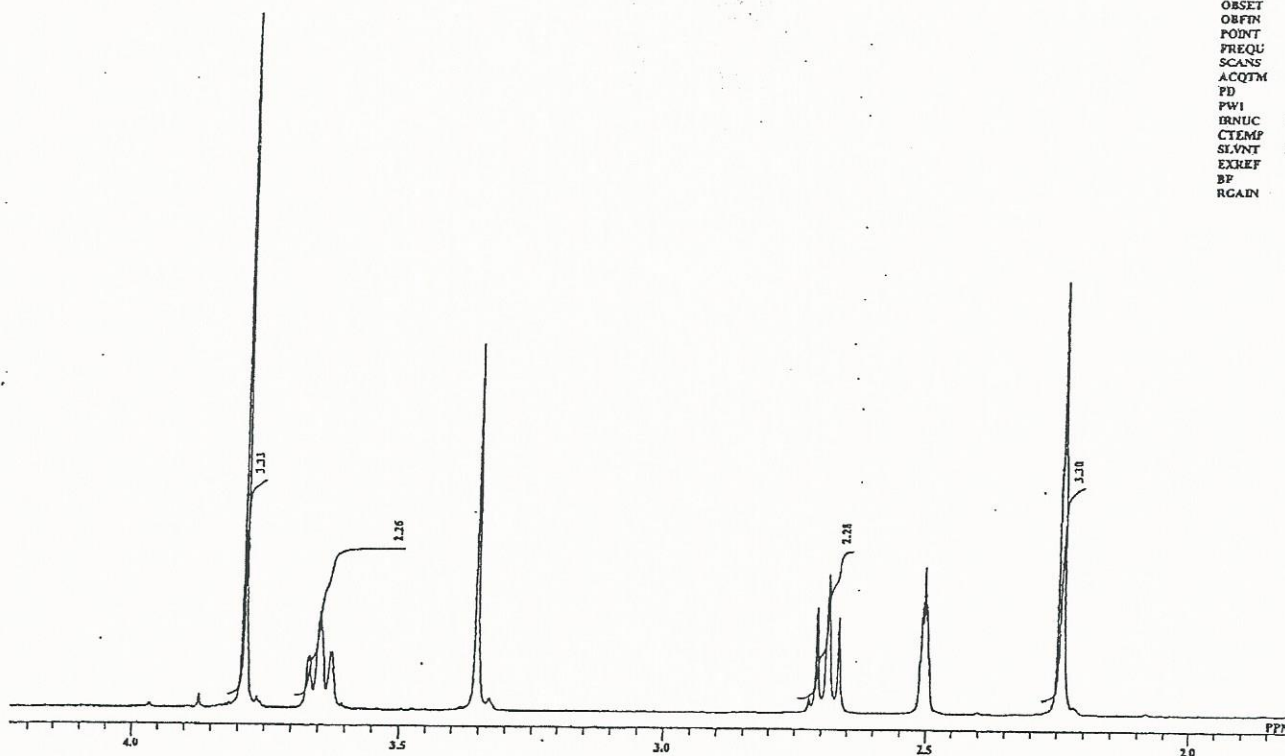
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ORNUC	1H
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SOLNT	DMSO
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BF	0.50 Hz
RGAIN	16