



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

Cat No.: 19-920

Product: 5-HYDROXY-6-NITRO NICOTINIC ACID

Lot Number: 1212263

Chemical Formula: C₆H₄N₂O₅

Molecular Weight: 184.11

Melting Point: 181-183°C

Appearance: Cream color powder

Solubility: Soluble in DMSO

TLC: Acetone:Methanol (8:2)

Residue on ignition: 1.9%

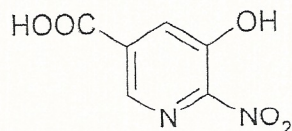
Moisture(KF): 0.60%

NMR Spectrum: Enclosed

Mass Spec: Complies (M⁻¹=182.8)

Purity(HPLC): 99.81%

Storage: Cool dry place





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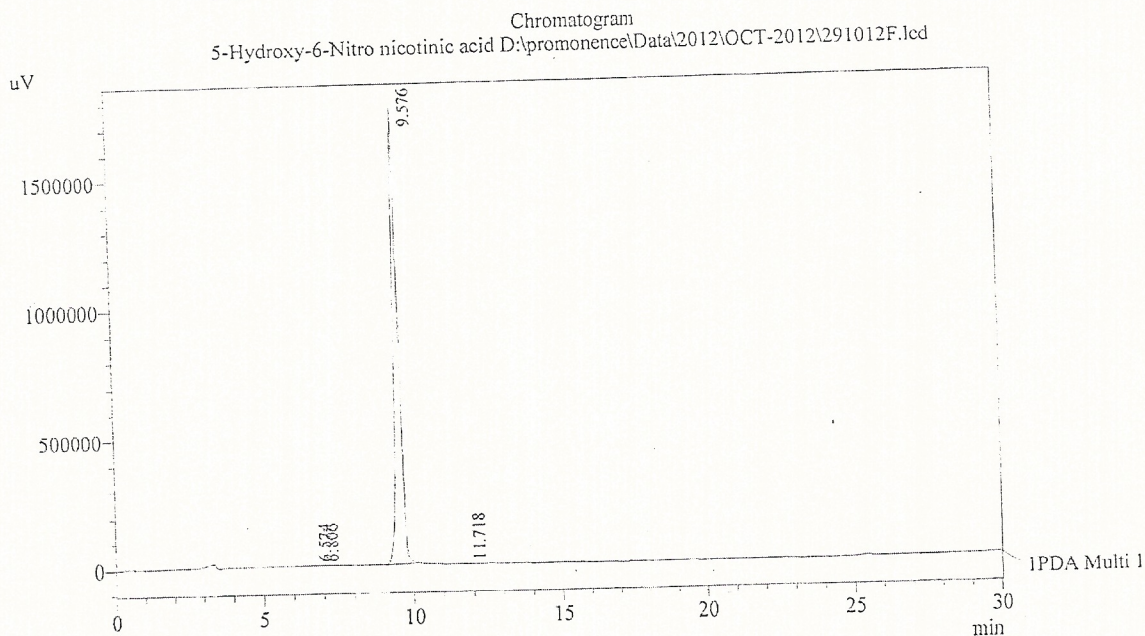
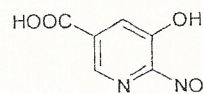
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HPLC ANALYSIS

Acquired by : Sanjeev
 Sample Name : 5-Hydroxy-6-Nitro nicotinic acid
 Sample ID : 11.5 Kg Uniform Lot
 Injection Volume : 20 uL
 Data Filename : 291012F.lcd
 Method Filename : Linear Gradient.M.lcm

Catalog no.: 19-920
 Product name: 5-Hydroxy-6-nitro nicotinic acid
 Lot No.: 1212263

Column : LUNA C-18(2), (250mm x4.6mm 5.0µ)
 Flow : 1.000 mL/min.
 Mobile Phase : A(0.05% TFA in water) B(Acetonitrile)
 0.01 90 10
 12.0 10 90
 20.0 10 90
 23.0 90 10
 30.0 90 10



1 PDA Multi 1 / 236nm 4nm

PeakTable

Peak#	Name	Ret. Time	Area	Area %	Relative Retention Time
1	RT:6.574	6.574	22569	0.11	0.69
2	RT:6.806	6.806	9140	0.05	0.71
3	5-OH-6-Nitro nicotinic acid	9.576	20189095	99.81	1.00
4	RT:11.718	11.718	6620	0.03	1.22
Total			20227424	100.00	



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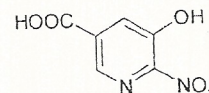
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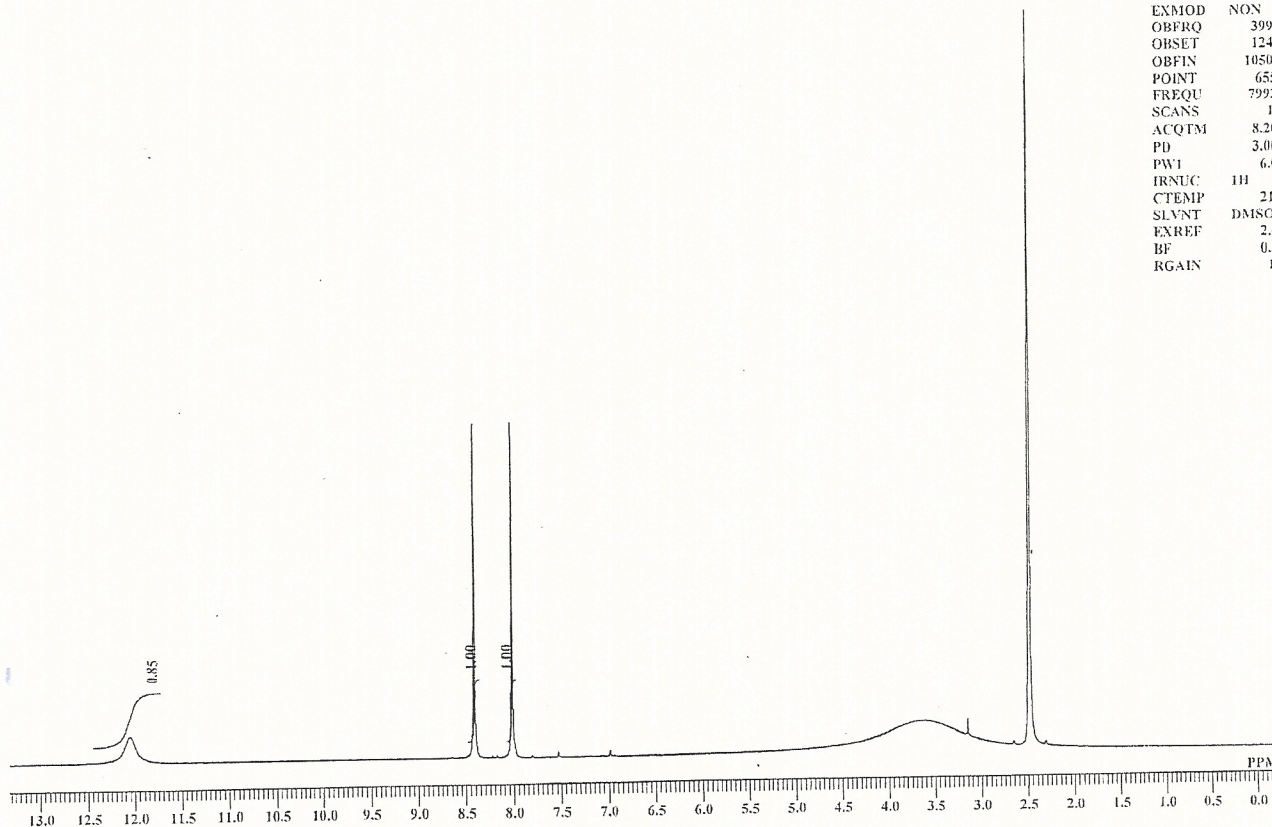
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Catalog no.: 19-920
Product name: 5-Hydroxy-6-nitro nicotinic acid
Lot No.: 1212263



5-OH-6-NO2-N.A-11.75Kglot 1H NMR DMSO-D6

DFILE 5-OH-6-NO2-N.A-11.75Kglot.als
COMNT 5-OH-6-NO2-N.A-11.75Kglot 1H N
DATIM Tue Oct 30 11:25:14 2012
OBNUC 1H
EXMOD NON
OBFRQ 399.65 MHz
OBSET 124.00 KHz
OBFIN 10500.00 Hz
POINT 65536
FREQU 7992.01 Hz
SCANS 16
ACQTM 8.2002 sec
PD 3.0000 sec
PW1 6.00 usec
IRNUC 1H
CTEMP 21.4 c
SLVNT DMSO
EXREF 2.49 ppm
BF 0.50 Hz
RGAIN 18





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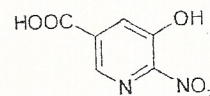
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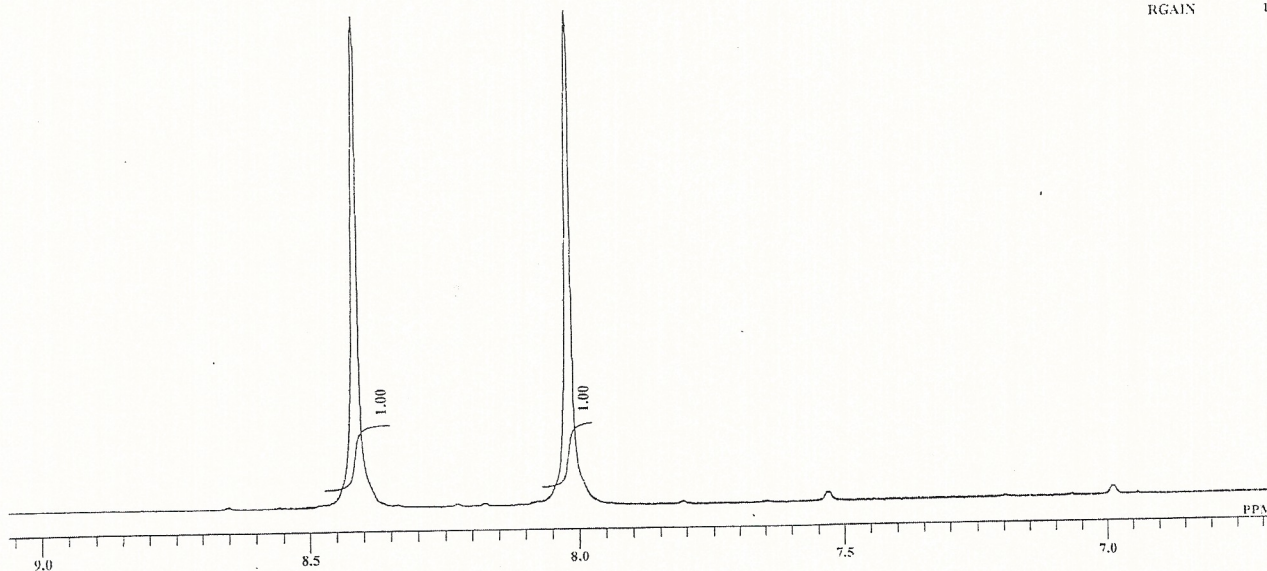
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5-OH-6-NO2-NA-11.75Kglot 1H NMR DMSO-D6

DFILE	5-OH-6-NO2-NA-11.75Kglotals
COMNT	5-OH-6-NO2-NA-11.75Kglot 1H N
DATIM	Tue Oct 30 11:25:14 2012
OBNUC	1H
EXMOD	NON
OBFRQ	399.65 MHz
OBSET	124.00 KHz
OBFIN	10500.00 Hz
POINT	65536
FREQU	7992.01 Hz
SCANS	16
ACQTM	8.2002 sec
PD	3.0000 sec
PW1	6.00 usec
IRNUC	1H
CTEMP	21.4 c
SLVNT	DMSO
EXREF	2.49 ppm
BF	0.30 Hz
RGAIN	18





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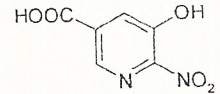
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Lot No.: 1212263



Sample Information
Sample Name : 5-OH-6-NO2-N.A-11.75 Kg Lot
B.No : -
Data File : 5-OH-6-NO2-N.A-11.75 Kg Lot.lcd
Method File : Test1(ESI).iem
Acquired by : KK
Date Acquired : 10/30/2012 11:29:19

MS Spectrum Graph

