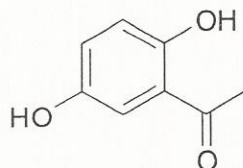


**INDOFINE Chemical Company, Inc.**

121 Stryker Lane, Bldg. 30
Hillsborough, NJ 08844 USA
Phone: (908) 359-6778; Fax: (908) 359-1179

Certificate Of Analysis**D-003****2',5'-DIHYDROXYACETOPHENONE****Lot No.: 1808111**

S. No	Test	Specification	Observation
1.	CAS No:	[490-78-8]	-
2.	Molecular Formula	C ₈ H ₈ O ₃	C ₈ H ₈ O ₃
3.	Molecular Weight	152.15	152.15
4.	Description	Yellow, yellow-green or green gray crystalline powder	yellow-green crystalline powder
5.	Identification by NMR	Should confirm with the structure	Complies
6.	Melting Range	202-210°C	202-204°C
7.	UV-VIS spectrum (1% MeOH, 500 nm)	≥ 50%T	Complies
8.	Purity by HPLC	NLT -98%	99.30%
9.	Sulphated ASH	NMT 1.0%	0.14%
10.	Chloride	≤ 0.1%	Absent
11.	TLC	Chloroform : Methanol (9:1)	Chloroform : Methanol (9:1)
12.	Solubility	Clear solution in DMSO	Complies



Prepared by:

Ramesh Mandadi

Ramesh Mandadi

Director of Operations

Reviewed and Approved by:

Sujata Moton

Sujata Moton

VP



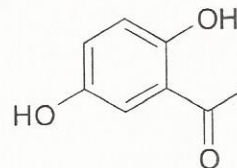
INDOFINE Chemical Company, Inc.

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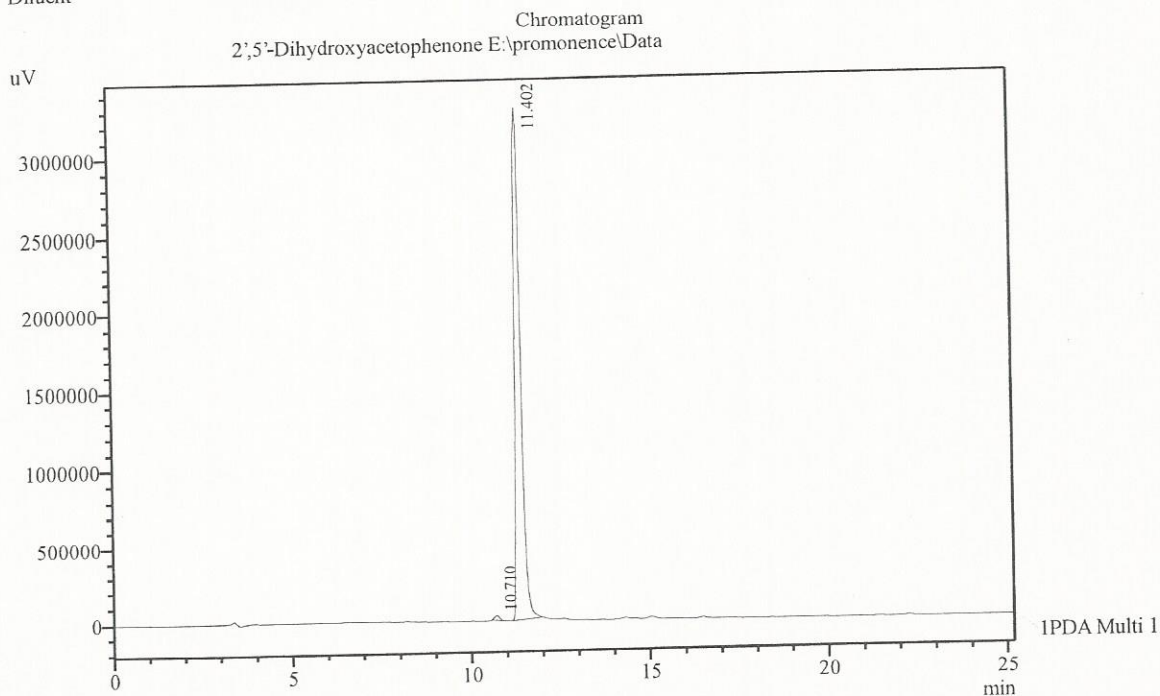
HPLC ANALYSIS

Acquired by : Admin
Sample Name : 2',5'-Dihydroxyacetophenone
Sample ID : 80 Kg- LOT
Injection Volume : 20 uL
Data Filename : 280718F.lcd
Method Filename : Linear Gradient.M.lcm

Catalog No.: D-003
Product Name: 2',5'-Dihydroxyacetophenone
Lot No.: 1808111



Column : LUNA C-18, (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
25.0 90 10
Diluent : Acetonitrile



1 PDA Multi 1 / 230nm 4nm

PeakTable

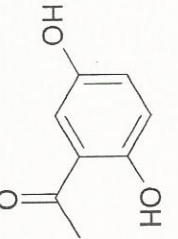
Peak#	Name	Ret. Time	Area	Area %	Relative Retention Time
1		10.710	271035	0.70	0.94
2	2',5'-DiOH ACP	11.402	38580238	99.30	1.00
Total			38851273	100.00	

Prepared by:
Ramesh Mandadi
Ramesh Mandadi
Director of Operations

Reviewed and Approved by:
Sujata Moton
Sujata Moton
VP

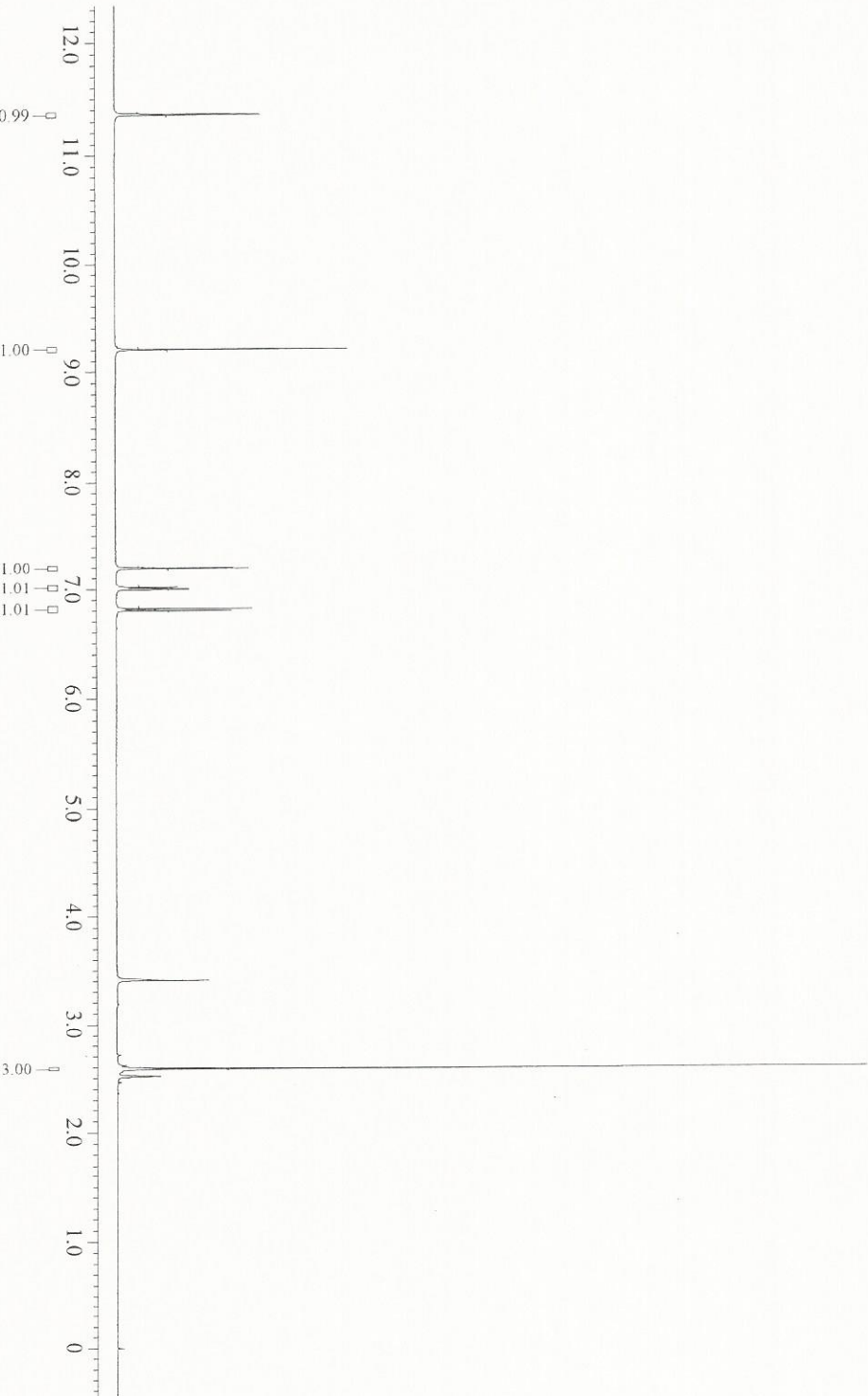


INDOFINE Chemical Company, Inc.
 121 STRYKER LANE
 BLDG. 30, SUITE 1
 HILLSBOROUGH, NJ 08844



Catalog No.: D-003
 Product Name: 2',5'-Dihydroxyacetophenone
 Lot No.: 1808111

11.361
 9.210
 7.202
 7.196
 7.024
 7.018
 7.006
 7.001
 6.820
 6.802
 2.590



```

---- PROCESSING PARAMETERS ----
sexp( 0.2[Hz], 0.0[s] )
trapzoid( 0[%], 0[%], 80[%], 100[%] )
zerofill( 1 )
fft( 1, TRUE, TRUE )
machinephase
ppm
reference( -0.05149[ppm], 2.49[ppm] )
reference( 2.49[ppm], 0[ppm] )
phase( 2.41989, 0, 88.96689[%] )
  
```

```

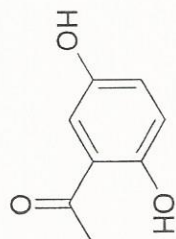
Instrument      - NMR-500MHz(JEOL)
Instrument id   - NMR-02
Author         - Kishore1378
Reviewed by    - Purushotham
Solvent        - DMSO-d6
Spectrometer   - JNM-ECZ500R/S1
Experiment     - proton.jxp
  
```

```

Acquisition Parameter
X_Domain       = 1H
X_Offset       = 7.0[ppm]
X_Sweep        = 11.28158845[kHz]
Scans          = 16
Relaxation_Delay = 21[s]
Temp_Get       = 22.8[degC]
  
```



INDOFINE Chemical Company, Inc.
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Catalog No.: D-003
 Product Name: 2,5-Dihydroxyacetophenone
 Lot No.: 1808111

7.202
7.196

7.024
7.018
7.006
7.001

6.820
6.802

```

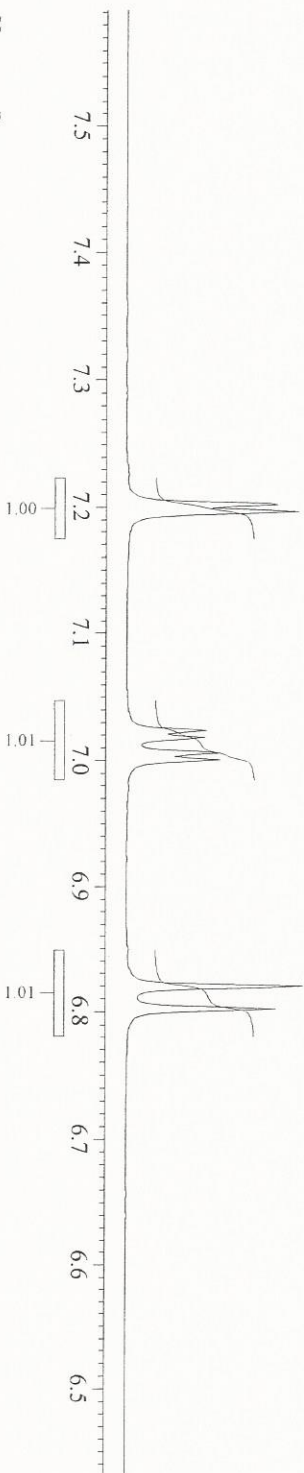
----- PROCESSING PARAMETERS -----
sexp( 0.2[Hz], 0.0[ls] )
trapzoid( 0[%], 0[%], 80[%], 100[%] )
zerofill( 1 )
fft( 1, TRUE, TRUE )
machinphase
ppm
reference( -0.05149[ppm], 2.49[ppm] )
reference( 2.49[ppm], 0[ppm] )
phase( 2.41989, 0, 88.96689[°] )
  
```

```

Instrument      = NMR-500MHz (JEOL)
Instrument Id   = NMR-02
Author         = Kishore1378
Reviewed by    = Purushotham
Solvent        = DMSO-D6
Spectrometer   = JNM-ECZ500R/S1
Experiment     = proton.jxp
  
```

```

Acquisition Parameter
X_Domain       = 1H
X_Offset       = 7.0[ppm]
X_Sweep        = 11.28158845[kHz]
Scans          = 16
Relaxation_Delay = 2[ls]
Temp_Get       = 22.8[°C]
  
```



X : ppm : Proton