

**ICC** **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

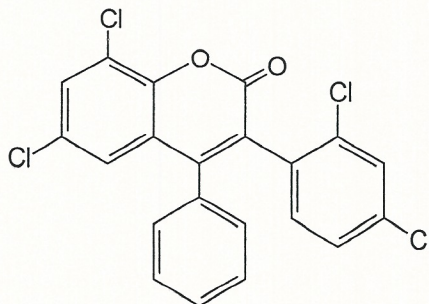
website: [www.indofinechemical.com](http://www.indofinechemical.com)

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

**CERTIFICATE OF ANALYSIS**

**Cat. No.: 19-091**

<u>Product:</u>	6,8-Dichloro-3(2',4'-dichlorophenyl)-4-phenylcoumarin
<u>Lot No.:</u>	99045
<u>Chemical Formula:</u>	C <sub>21</sub> H <sub>10</sub> Cl <sub>4</sub> O <sub>2</sub>
<u>Molecular Weight:</u>	436.12
<u>Melting Point:</u>	263-265°C
<u>Appearance:</u>	White powder
<u>Solubility:</u>	Soluble in Chloroform
<u>TLC:</u>	Hexane: Ethyl acetate (7:3)
<u>NMR Spectrum:</u>	Enclosed
<u>Storage:</u>	Store in cool, dry place
<u>Purity (HPLC):</u>	97.72%





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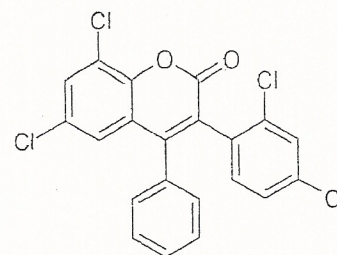
## HPLC ANALYSIS

Catalog no.: 19-091

Product name: 6,8-Dichloro-3(2',4'-dichlorophenyl)-4-phenylcoumarin

Lot No.: 99045

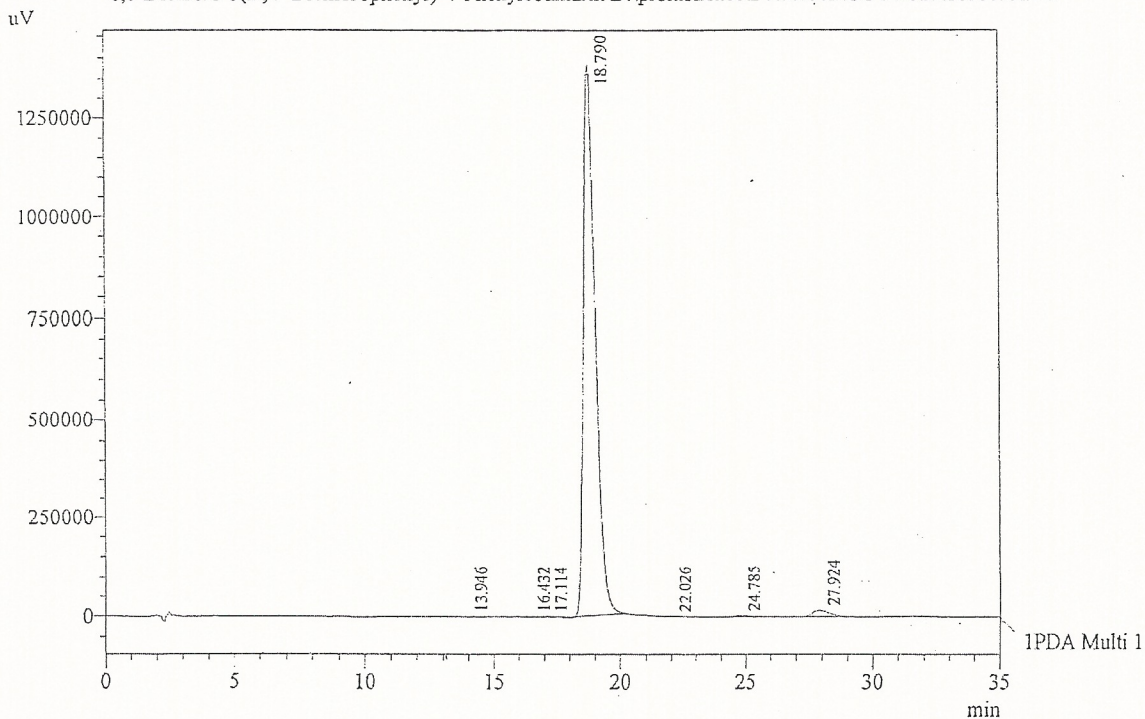
Acquired by : Sanjeev  
Sample Name : 6,8-Dichloro-3(2',4'-Dichlorophenyl)-4-Phenylcoumarin  
Sample ID : Lot NO-99045  
Injection Volume : 20 uL  
Data Filename : 181012A.lcd  
Method Filename : Linear Isocratic.M.lcm



Column : LUNA C-18(2), (250mm x4.6mm 5.0μ)  
Flow : 1.000 mL/min.  
Mobile Phase : A(20% of 0.05% TFA in water) B(80% of Acetonitrile)

### Chromatogram

6,8-Dichloro-3(2',4'-Dichlorophenyl)-4-Phenylcoumarin D:\promonence\Data\2012\OCT-2012\181012A.lcd



1 PDA Multi 1 / 220nm 4nm

### PeakTable

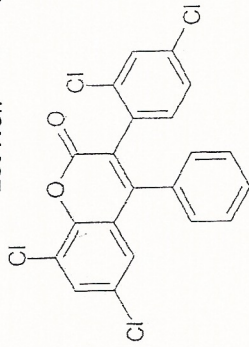
PDA Ch1 220nm 4nm

Peak#	Name	Ret. Time	Area	Area %	Relative Retention Time
1	RT:13.946	13.946	17030	0.04	0.74
2	RT:16.432	16.432	35790	0.08	0.87
3	RT:17.114	17.114	36491	0.08	0.91
4	RT:18.790	18.790	44137857	97.72	1.00
5	RT:22.026	22.026	8105	0.02	1.17
6	RT:24.785	24.785	138326	0.31	1.32
7	RT:27.924	27.924	792960	1.76	1.49
Total			45166560	100.00	



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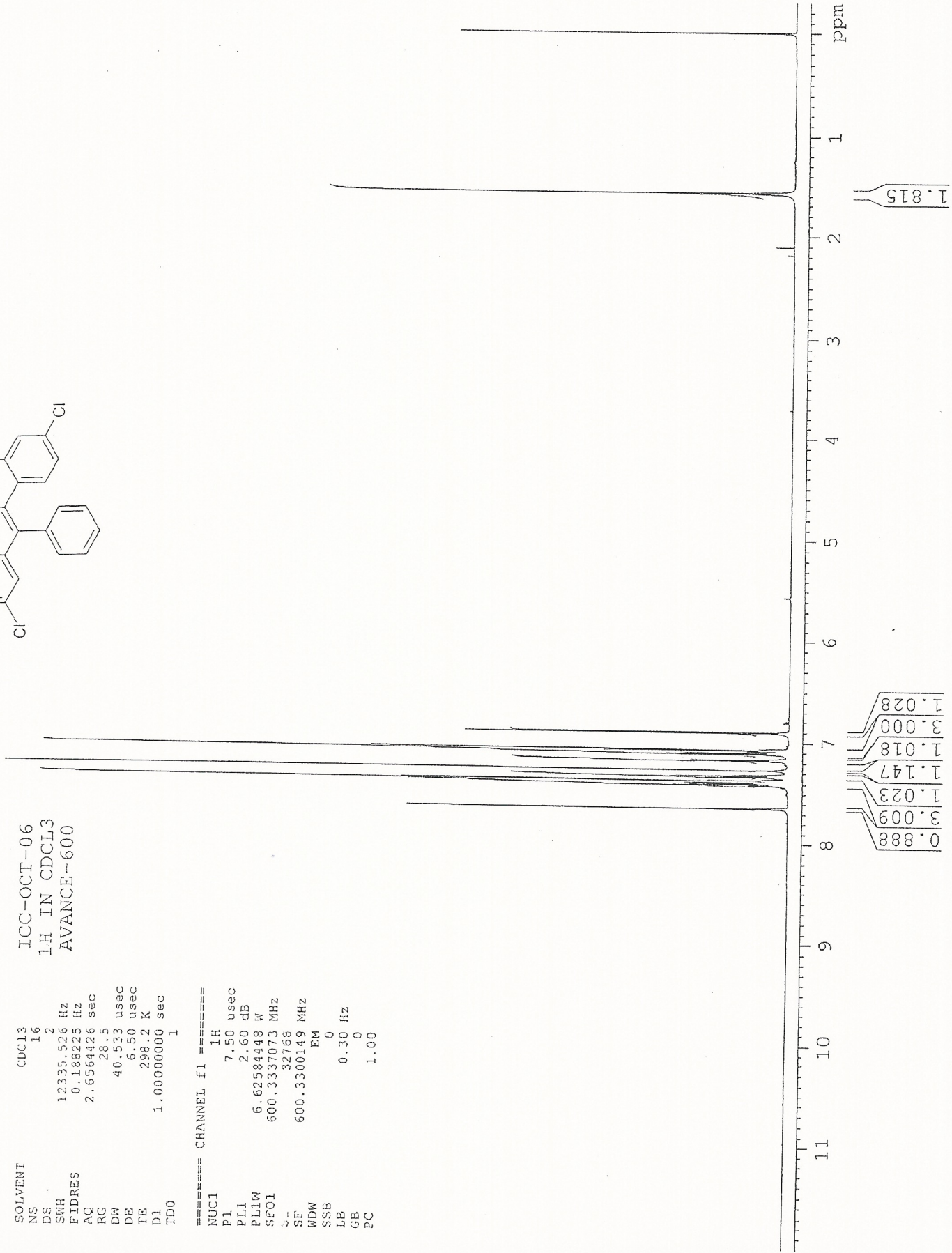
Catalog no.: 19-091  
 Product name: 6,8-Dichloro-3-(2',4'-dichlorophenyl)-4-phenylcoumarin  
 Lot No.: 99045



ICC-OCT-06  
 1H IN CDCL3  
 AVANCE-600

SOLVENT CDCL3  
 NS 16  
 DS 2  
 SWH 12335.526 Hz  
 FIDRES 0.188225 Hz  
 AQ 2.6564426 sec  
 RG 28.5  
 DW 40.533 usec  
 DE 6.50 usec  
 TE 298.2 K  
 D1 1.0000000 sec  
 ID0 1

==== CHANNEL f1 =====  
 NUC1 1H  
 P1 7.50 usec  
 PL1 2.60 dB  
 PL1W 6.62584448 W  
 SF01 600.3337073 MHz  
 SF 32768  
 SE 600.3300149 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

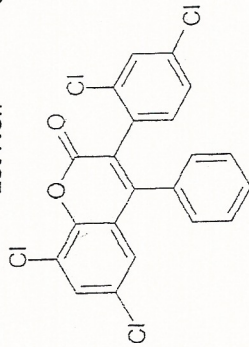




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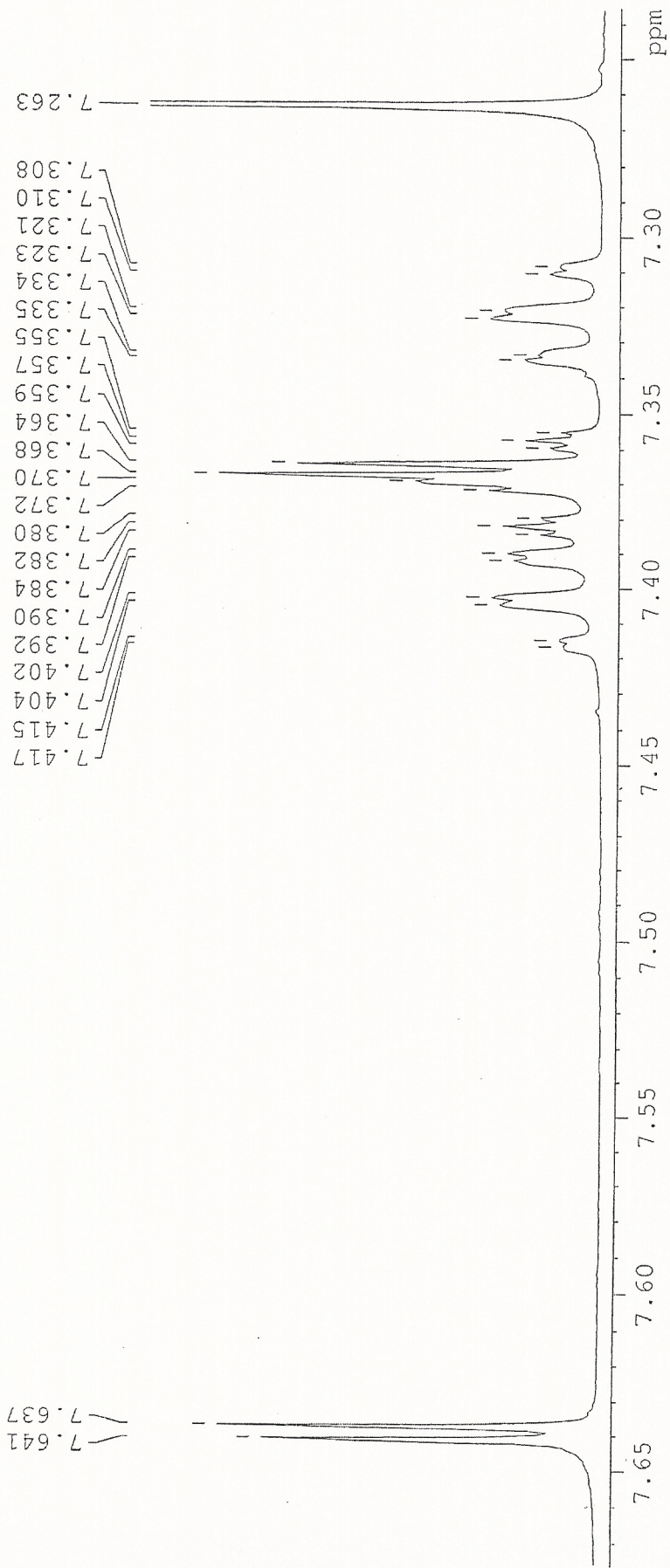
Product name: 6,8-Dichloro-3(2',4'-dichlorophenyl)-4-phenylcoumarin  
 Lot No.: 99045



ICC-OCT-06  
 1H IN CDCL3  
 AVANCE-600

SOLVENT CDCL3  
 NS 16  
 DS 2  
 SWH 12335.525 Hz  
 FLDRES 0.188225 Hz  
 AQ 2.0564426 sec  
 RG 28.5  
 DW 40.533 usec  
 DE 6.50 usec  
 TE 298.2 K  
 D1 1.00000000 sec  
 TD0 1

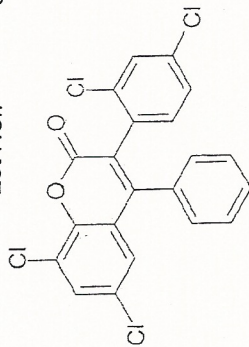
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 NUCL 1H  
 P1 7.50 usec  
 PL1 2.60 dB  
 PL1W 6.62584448 W  
 SF01 600.3337073 MHz  
 SI 32768  
 SF 600.3300149 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00





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 Lot No.: 99045



ICC-OCT-06  
 1H IN CDCL3  
 AVANCE-600

SOLVENT CDCL3  
 NS 16  
 DS 2  
 SWH 12335.526 Hz  
 FIDRES 0.188225 Hz  
 AQ 2.6584426 sec  
 RG 28.5  
 DW 40.533 usec  
 DE 6.50 usec  
 TE 298.2 K  
 D1 1.0000000 sec  
 TD0 1

===== CHANNEL f1 =====  
 NUC1 1H  
 P1 7.50 usec  
 PL1 2.60 dB  
 PL1W 6.62584448 W  
 SF01 600.3337073 MHz  
 SI 32768  
 SF 600.3300149 MHz  
 WDW EM  
 SSB 0  
 LE 0.30 Hz  
 GB 0  
 PC 1.00

