



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.: 06-023

Product:

OLEANOLIC ACID

(3b-Hydroxyolean-12-en-28-oic acid; Caryophyllin)

CAS Number:

[508-02-1]

Lot Number:

1203198

Chemical Formula:

$C_{30}H_{48}O_3$

Molecular Weight:

456.71

Appearance:

White powder

Solubility:

Soluble in chloroform

NMR Spectrum:

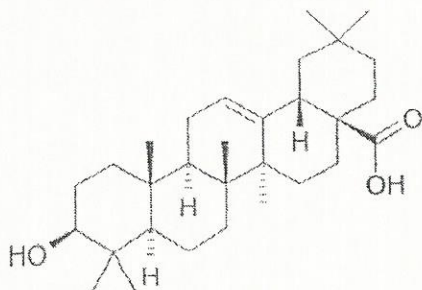
Enclosed

Storage:

Cool dry place

Purity(HPLC):

91.34%





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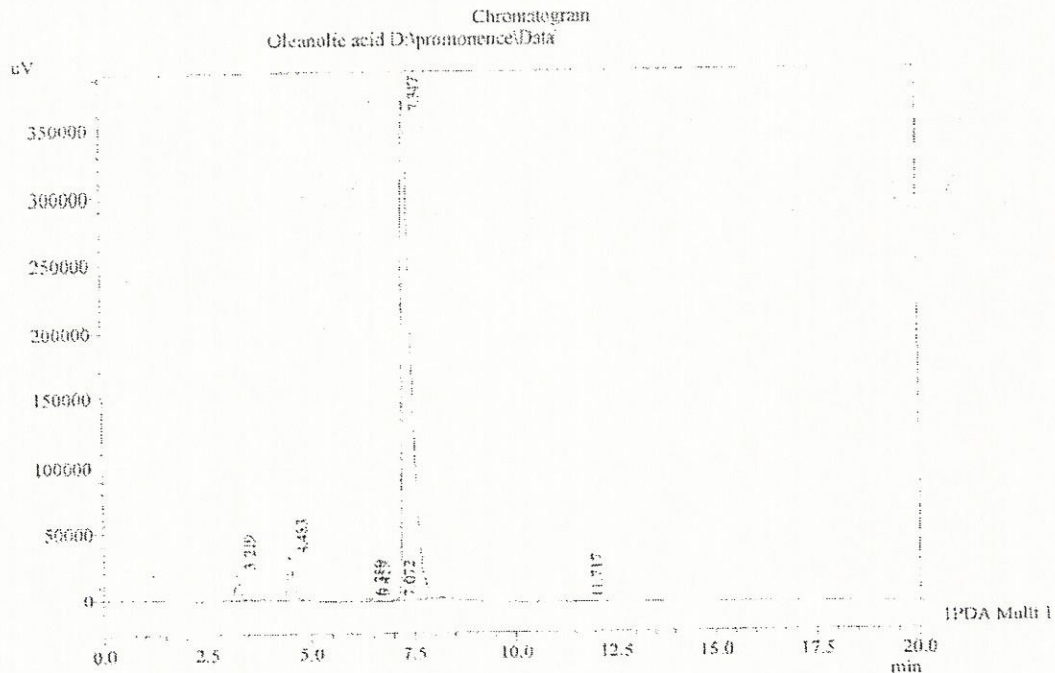
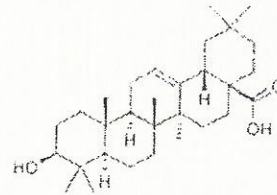
e-mail: chemical@indofinechemical.com

HPLC ANALYSIS

Acquired by : Sanjeev
Sample Name : Oleanolic acid
Sample ID : Lot No: 1203198
Injection Volume : 20 uL
Data Filename : 311212A.tcd
Method Filename : Linear Isocratic.M1cm

Catalog no.: 06-023
Product name: Oleanolic acid
Lot No.: 1203198

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



IPDA Multi 1 / 210mm 4µm

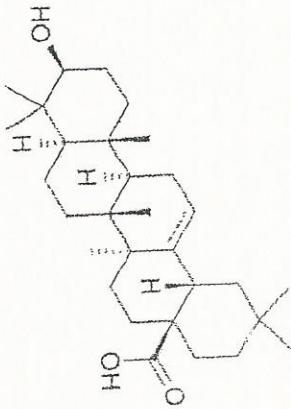
Peak Table

Peak#	Name	Ret. Time	Area	Area %	Relative Retention Time
1	RT:3.219	3.219	169963	2.66	0.44
2	RT:4.483	4.483	325019	5.09	0.61
3	RT:6.359	6.359	20642	0.32	0.87
4	RT:6.459	6.459	22592	0.35	0.88
5	RT:7.072	7.072	7589	0.12	0.96
6	Oleanolic acid	7.347	5834322	91.34	1.00
7	RT:11.717	11.717	7592	0.12	1.59
Total			6387320	100.00	



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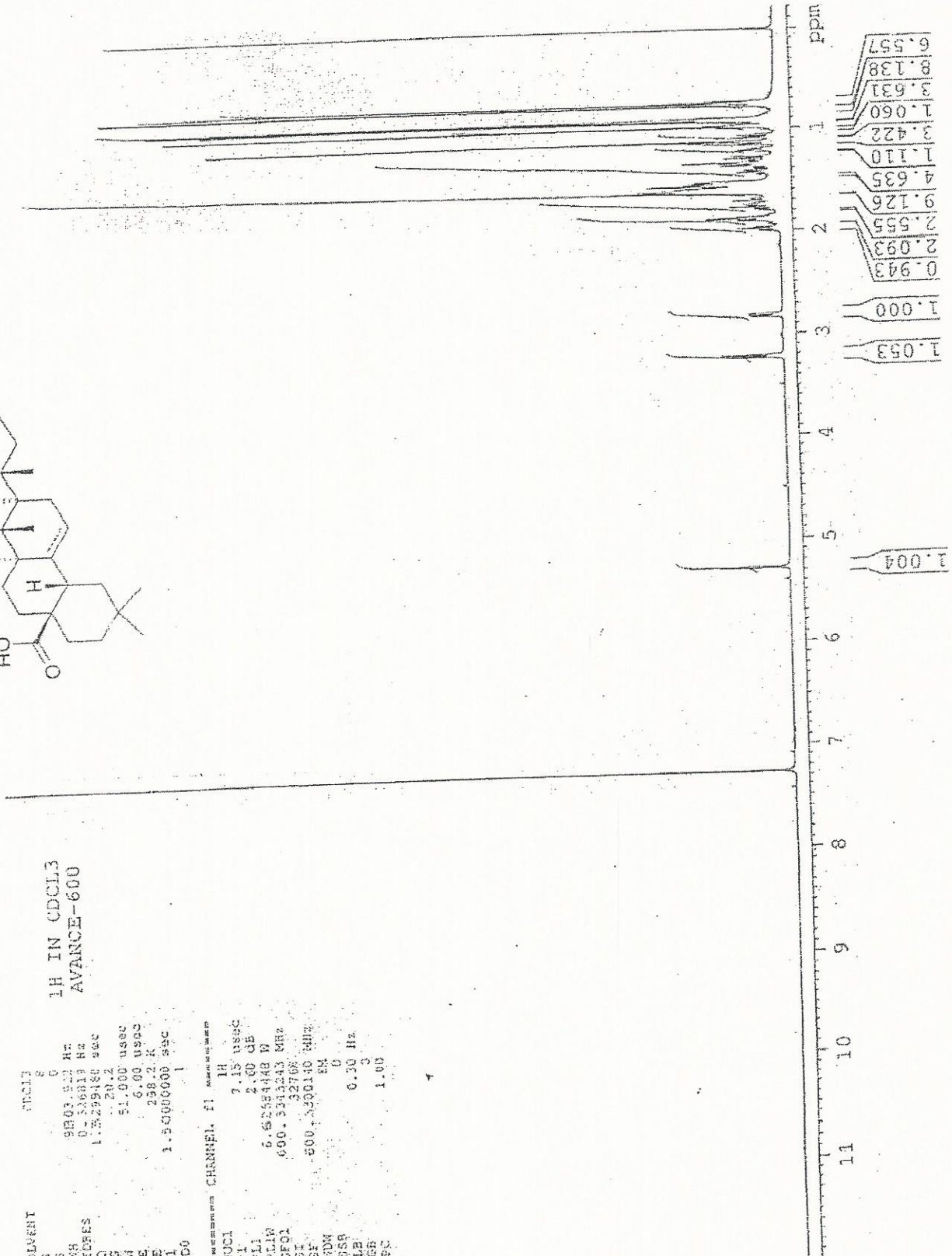
Catalog no.: 06-023
 Product name: Oleonic acid
 Lot No.: 1203198



SOLVENT CDCL3
 NS 0
 DS 9801.541 Hz
 SWH 0.516813 Hz
 FIDRES 1.5229186 sec
 AQ 1.291.2
 RG 51.000 usec
 EN 6.00 usec
 DE 238.2 K
 TE 1.50000000 sec
 DI 1
 IC0

CHANNEL F1
 NUCL 1H
 P1 7.15 usec
 PL1 2.00 dB
 PL1R 6.62654448 W
 SF01 600.3413243 MHz
 ST 1.32768
 SR 500.3500140 MHz
 SFO 0
 SFR 0
 SSM 0
 LB 0.30 Hz
 GB 1.00
 PC

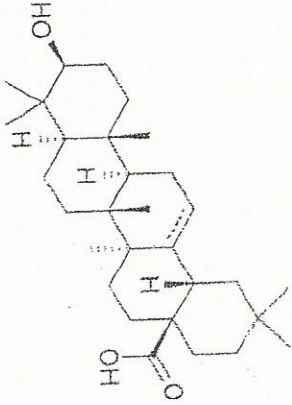
1H IN CDCL3
 AVANCE-600





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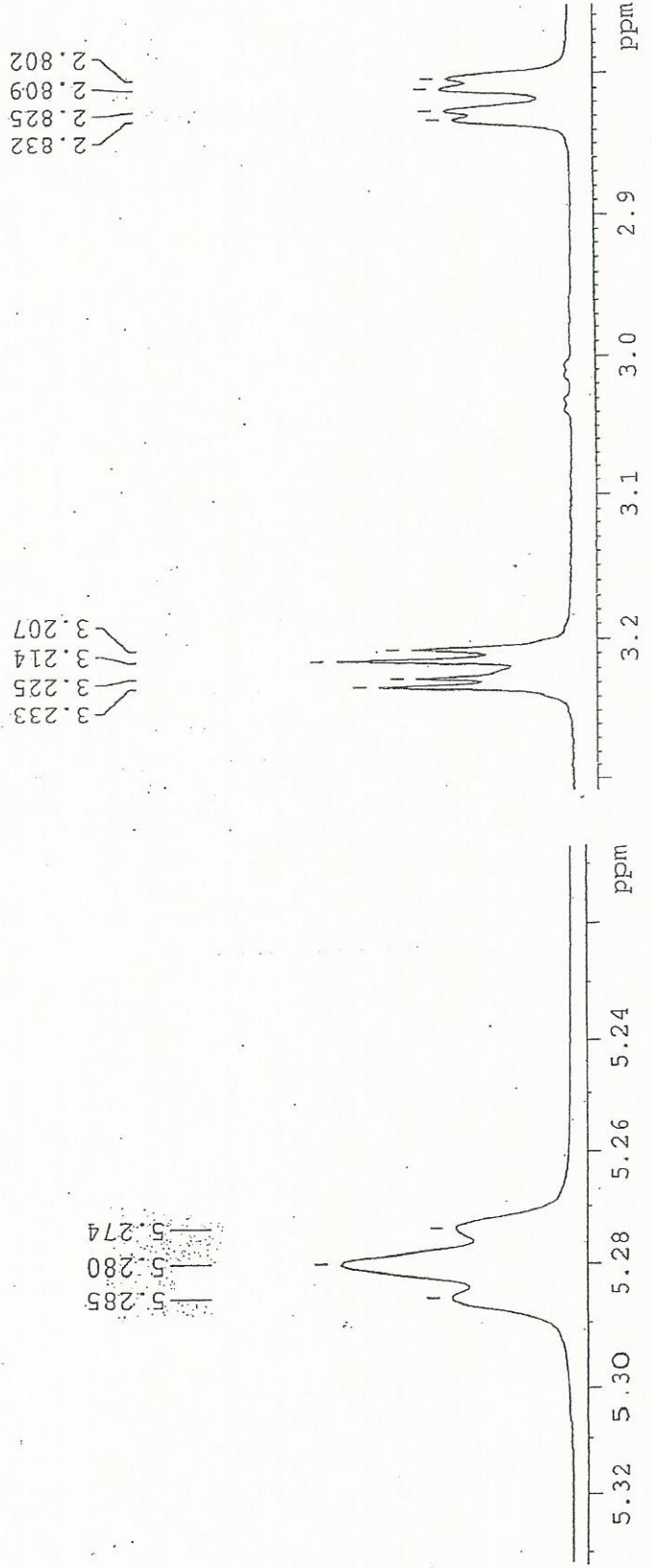
Catalog no.: 06-023
 Product name: Oleanolic acid
 Lot No.: 1203198



SOLVENT CDCL3
 NS 8
 DS 0
 SWH 9303.922 Hz
 FIDRES 0.326813 Hz
 AQ 1.329480 sec
 RG 20.2
 DW 51.000 usec
 DE 6.00 usec
 TE 298.2 K
 DL 5000.000 sec
 TD0 1

***** CHANNEL F1 *****
 NUC1 1H
 P1 7.15 usec
 PL1 2.00 dB
 PL1N 6258.4448 W
 SF01 60.3343243 MHz
 SI 32768
 SF 60.3300140 MHz
 RDN BK
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

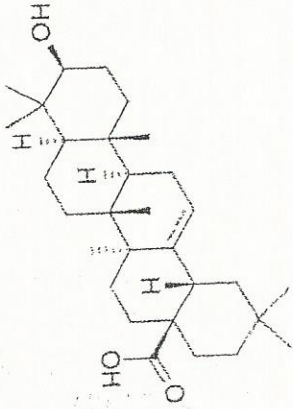
1H IN CDCL3
 AVANCE-600





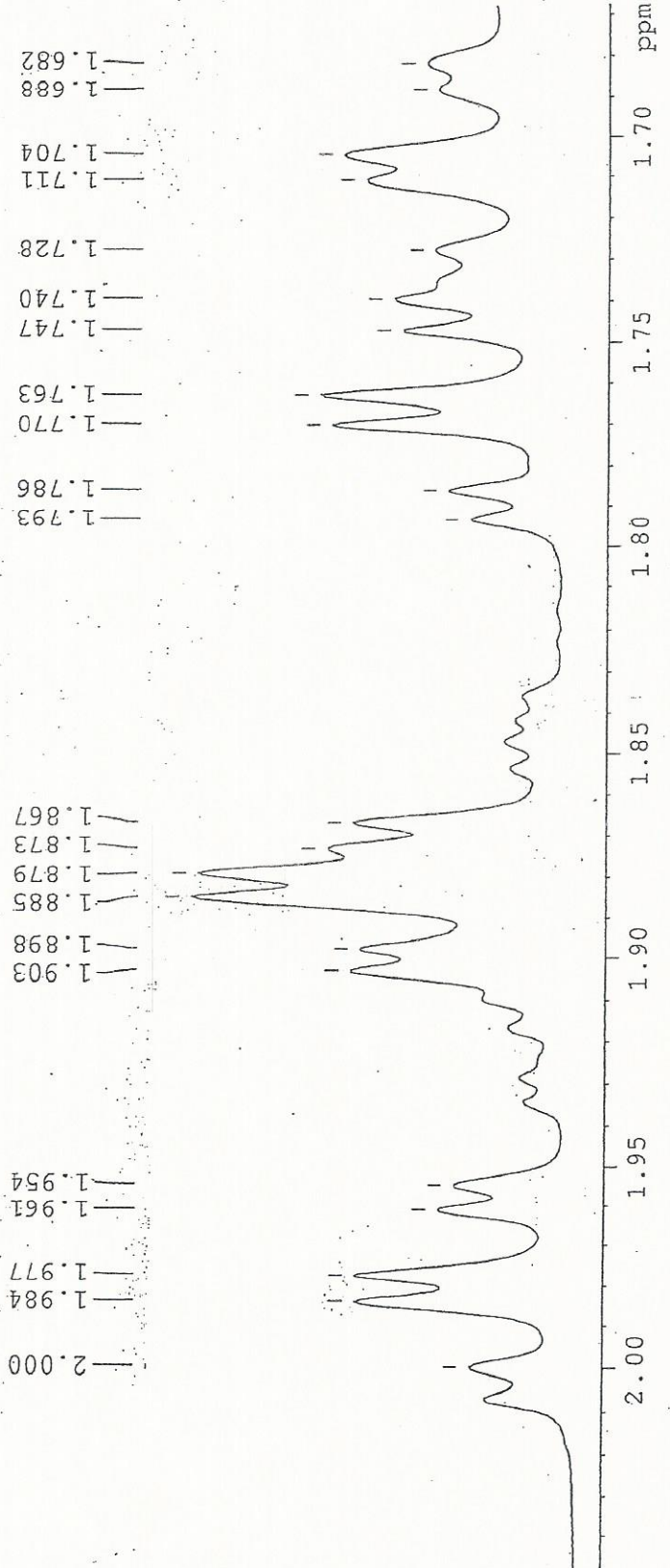
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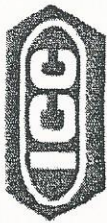
Catalog no.: 06-023
 Product name: Oleonic acid
 Lot No.: 1203198



SOLVENT CDCL3
 NS 8
 DS 0
 SWH 9803.922 Hz
 FIDRES 0.326819 Hz
 AQ 1.5239480 sec
 RG 20.2
 DW 51.000 usec
 DE 6.00 usec
 TE 298.2 K
 DI 1.5000000 sec
 TDO 1

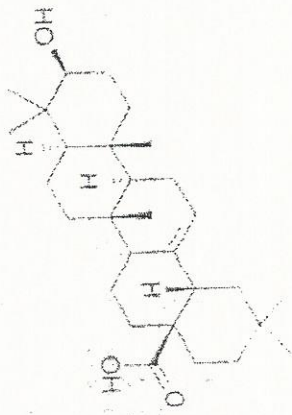
CHANNEL f1
 NUCL 1H
 P1 7.15 usec
 PL1 2.50 dB
 PLLW 6.62584448 W
 SF01 600.3343243 MHz
 SI 32768
 SF 600.3300140 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00





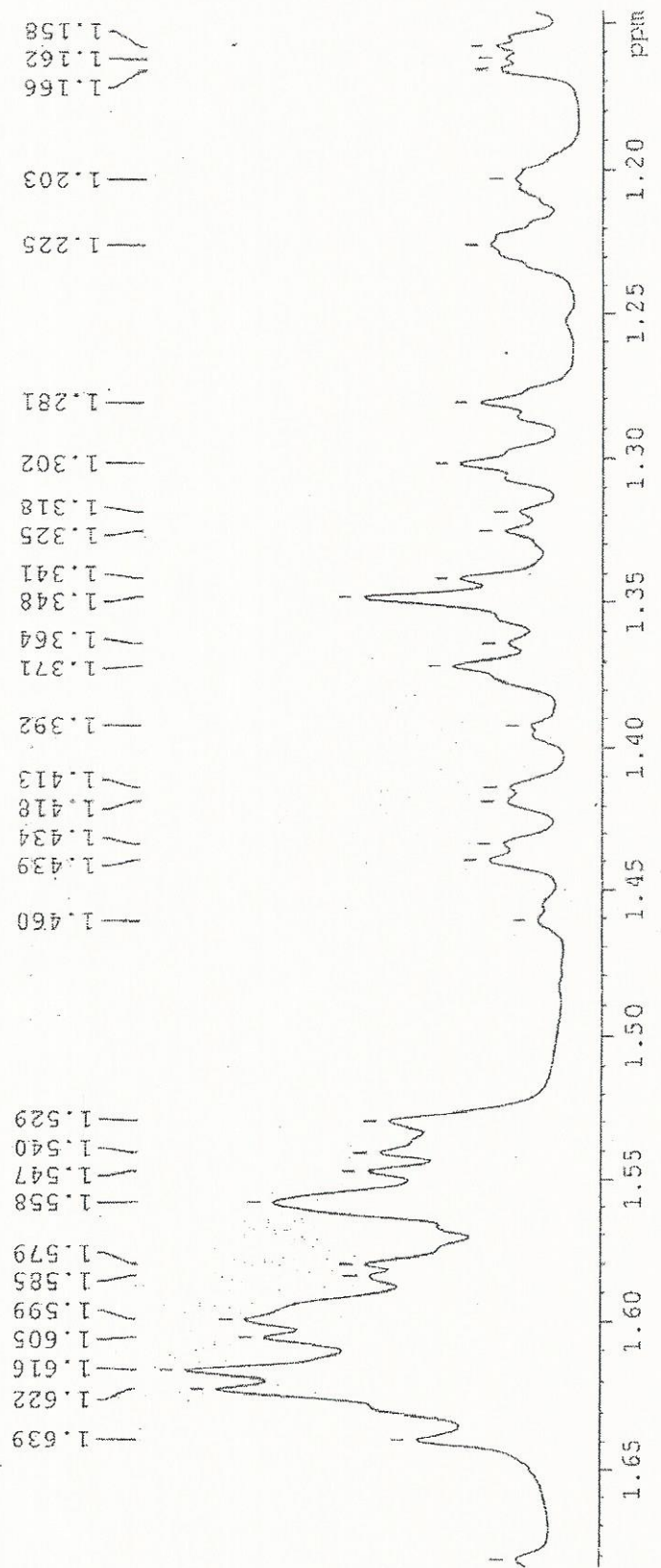
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 BLDG. 30, SUITE 1
 HILLSBOROUGH, NJ 08844

Catalog no.: 06-023
 Product name: Oleonic acid
 Lot No.: 1203198



SOLVENT CDCL3
 NS 6
 DS 0
 SNH 9803.822 Hz
 XIPRES 0.326819 Hz
 AQ 1.5259480 sec
 RG 28.2
 DW 51.000 usec
 DE 6.00 usec
 TE 298.2 K
 DI 1.50000000 sec
 TDG 1

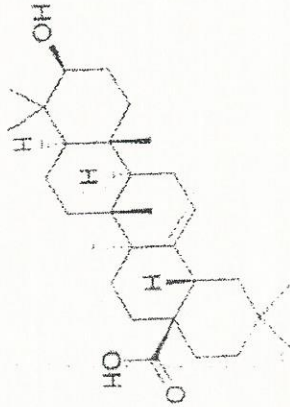
CHANNEL 51
 MUCL 1H
 P1 7.15 usec
 P11 2.60 dB
 P11N 6.62584848 W
 SF01 600.3343243 MHz
 SI 32758
 SF 600.3350140 MHz
 KDN EN
 SSB 0
 LP 0.30 Hz
 GB 0
 PC 1.00





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Catalog no.: 06-023
 Product name: Oleanolic acid
 Lot No.: 1203198



SOLVENT CDCl3
 NS 8
 DS 0
 SWH 9905.073 Hz
 FIDRES 3.316619 Hz
 AQ 1.5289102 sec
 RG 20.12
 ON 51.000 Hz/C0
 DE 6.00 USEC
 FT 258.72 K
 DI 1.5000000 sec
 TPC 1

1H IN CDCl3
 AVANCE-500

===== CHANNEL F1 =====
 NUC1 1H
 P1 7.15 USEC
 P11 2.00 GB
 P11M 6.63584448 Hz
 SFO1 600.5383243 MHz
 SI 327.66
 SF 600.5300140 MHz
 RDN 0
 SSB 0
 LB 0.30 Hz
 GB 0
 FC 1.00

