



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.: 19-888

Product: **2,3,4,6-TETRA-O-BENZYL-D-GLUCOPYRANOSE**

CAS Number: [4132-28-9]

Lot No.: 1212262

Chemical Formula: C₃₄H₃₆O₆

Molecular Weight: 540.66

Melting point: 149-151°C

Appearance: White fluffy powder

TLC: Hexane:Ethyl acetate (7:3)

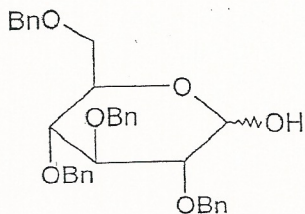
Solubility: Soluble in chloroform

NMR Spectrum: Enclosed

Moisture (KF): 0.35%

Purity (HPLC): 99.24%

Storage: Cool, dry place





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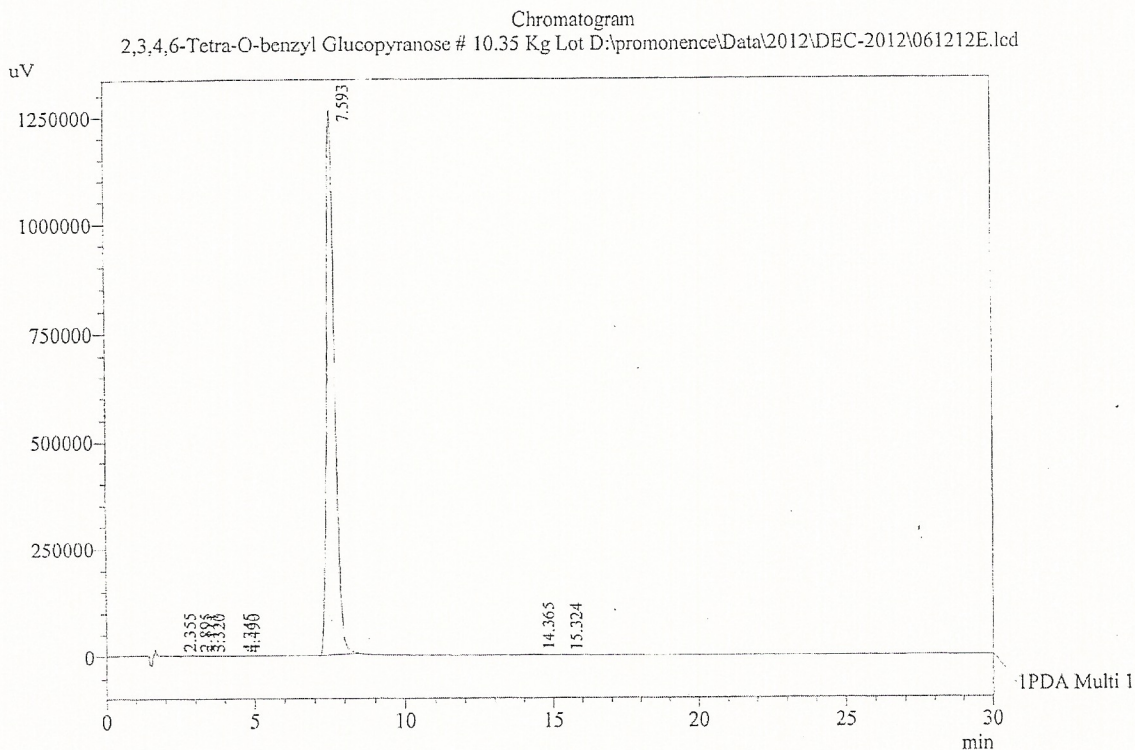
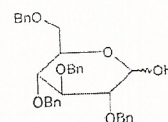
e-mail: chemical@indofinechemical.com

HPLC ANALYSIS

Acquired by : Sanjeev
Sample Name : 2,3,4,6-Tetra-O-benzyl Glucopyranose
Sample ID : #BRC/TBG/II/049/168/A
Injection Volume : 20 uL
Data Filename : 061212E.lcd
Method Filename : Linear Isocratic.M.lcm

Catalog no.: 19-888
Product name: 2,3,4,6-Tetra-O-benzyl-D-glucopyranose
Lot No.: 1212262

Column : LUNA C-18(2), (250mm x4.6mm 5.0μ)
Flow : 1.500 mL/min.
Mobile Phase : A(20% of 0.05% TFA in water) B(80% of Acetonitrile)



PeakTable

PDA Ch1 210nm 4nm

Peak#	Name	Ret. Time	Area	Area %	Relative Retention Time
1	RT:2.355	2.355	14937	0.06	0.31
2	RT:2.895	2.895	12253	0.05	0.38
3	RT:3.111	3.111	9137	0.04	0.41
4	RT:3.320	3.320	5415	0.02	0.44
5	RT:4.345	4.345	7168	0.03	0.57
6	RT:4.490	4.490	6891	0.03	0.59
7	TBG	7.593	23700837	99.24	1.00
8	RT:14.365	14.365	108336	0.45	1.89
9	RT:15.324	15.324	18259	0.08	2.02
Total			23883233	100.00	



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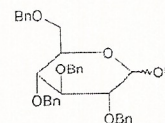
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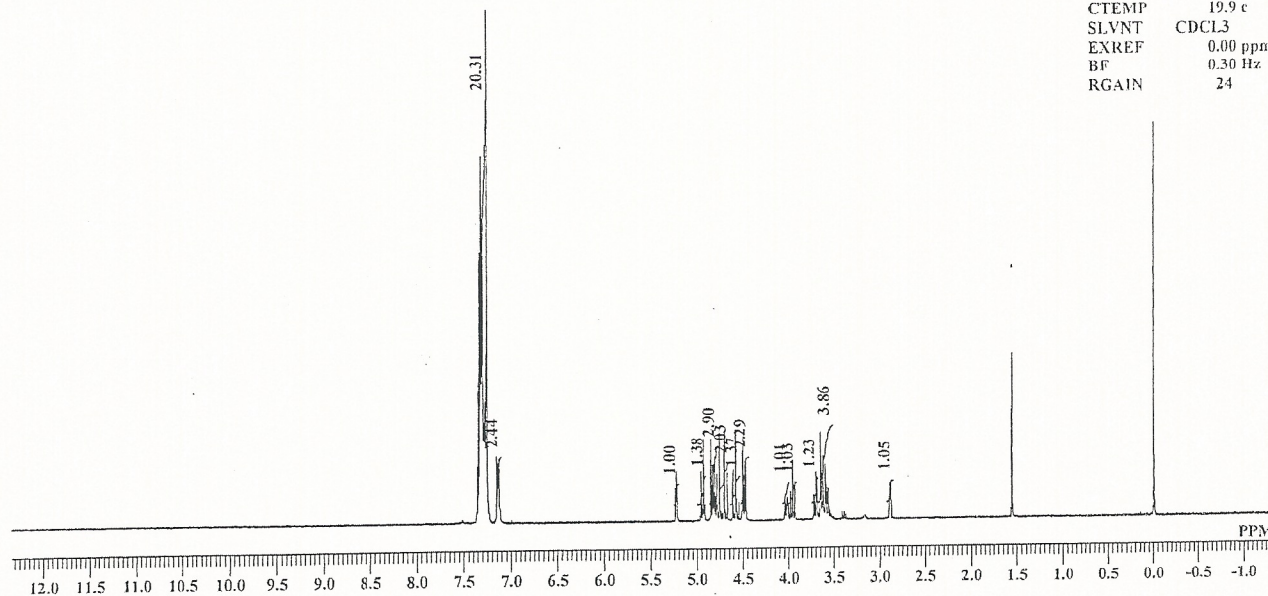
Catalog no.: 19-888
Product name: 2,3,4,6-Tetra-O-benzyl-D-glucopyranose
Lot No.: 1212262



TBG-10.35Kg lot 1H NMR CDCl3

Analysed By : JNR

DFILE TBG-10.35Kg lot 1H.als
COMNT TBG-10.35Kg lot 1H NMR CDCl
DATIM Thu Dec 06 15:33:23 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 19.9 c
SLVNT CDCl3
EXREF 0.00 ppm
BF 0.30 Hz
RGAIN 24





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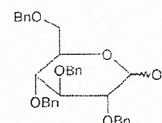
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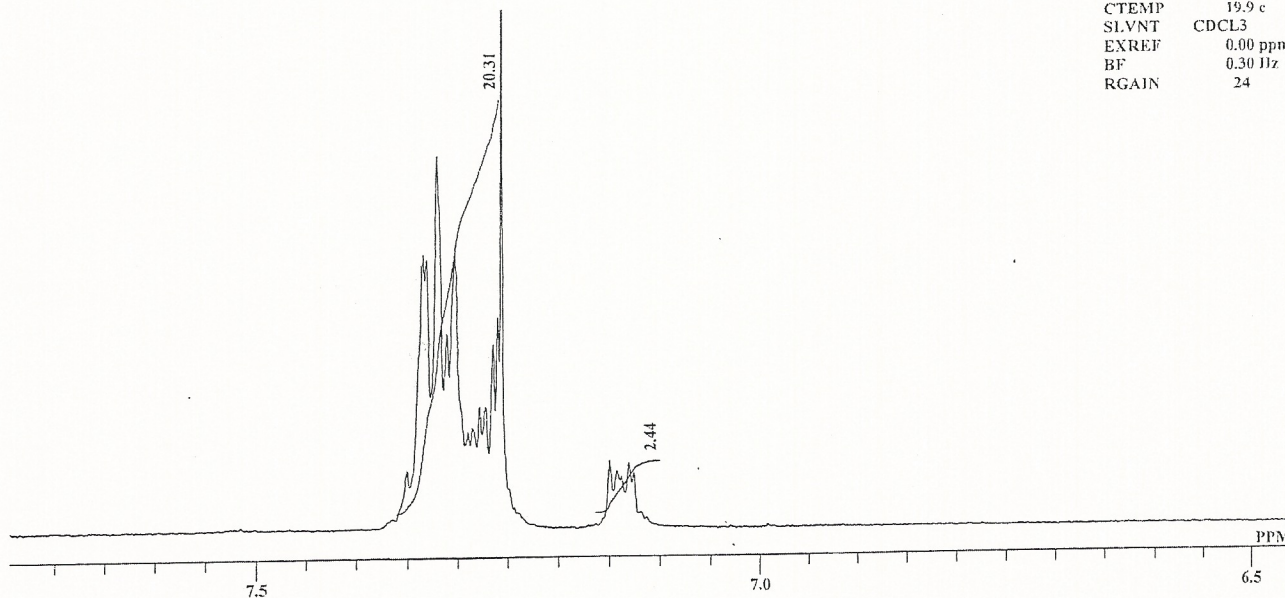
Catalog no.: 19-888
Product name: 2,3,4,6-Tetra-O-benzyl-D-glucopyranose
Lot No.: 1212262



TBG-10.35Kg lot 1H NMR CDCl3

Analysed By : JNR

DFILE	TBG-10.35Kg lot 1H.als
COMNT	TBG-10.35Kg lot 1H NMR CDCl3
DATIM	Thu Dec 06 15:33:23 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	19.9 c
SLVNT	CDCl3
EXREF	0.00 ppm
BF	0.30 Hz
RGAIN	24





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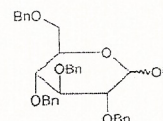
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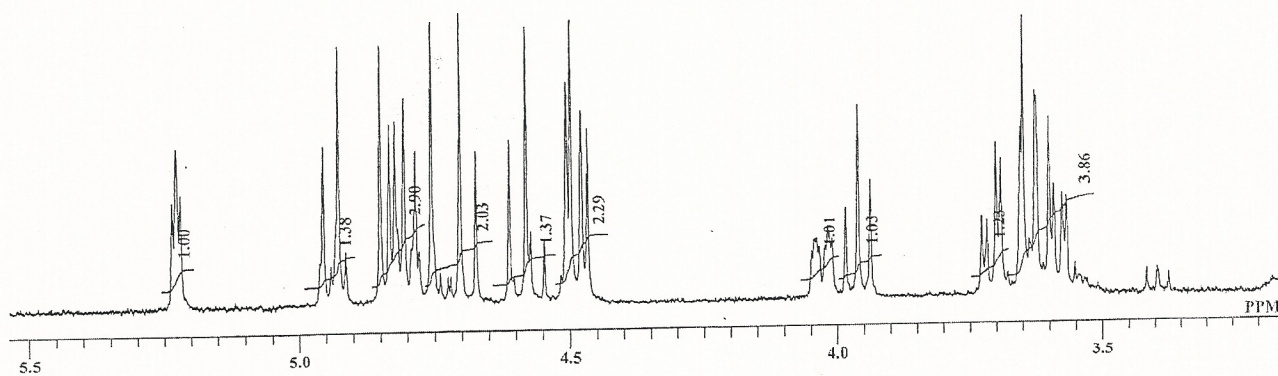
Catalog no.: 19-888
Product name: 2,3,4,6-Tetra-O-benzyl-D-glucopyranose
Lot No.: 1212262



TBG-10.35Kg lot 1H NMR CDCl₃

Analysed By : JNR

DFILE	TBG-10.35Kg lot 1H.als
COMNT	TBG-10.35Kg lot 1H NMR CDCl ₃
DATIM	Thu Dec 06 15:33:23 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	19.9 c
SLVNT	CDCl ₃
EXREF	0.00 ppm
BF	0.30 Hz
RGAIN	24





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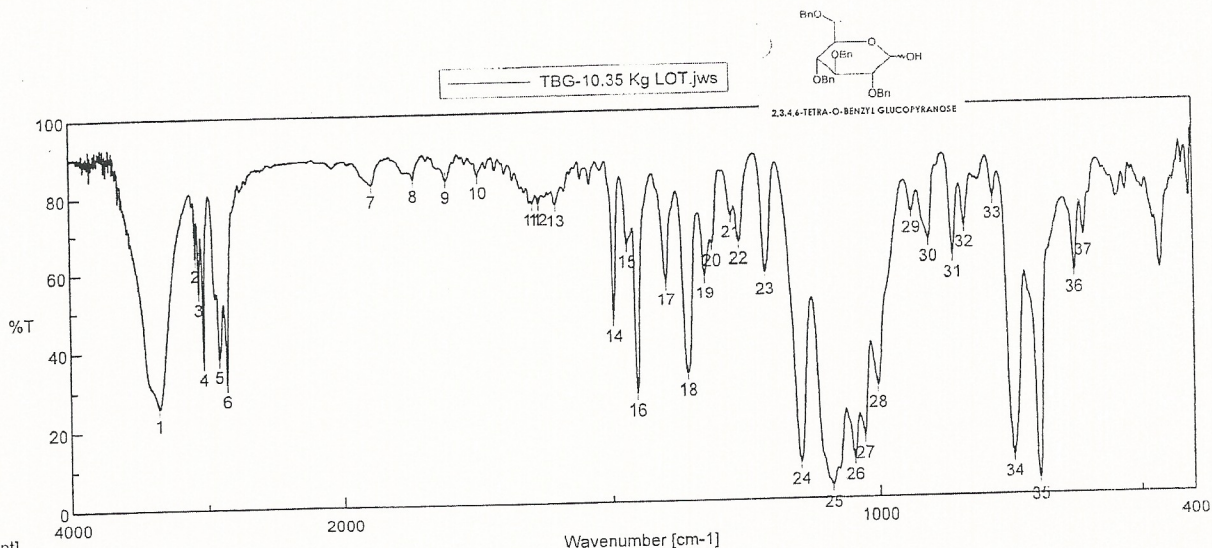
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Catalog no.: 19-888
Product name: 2,3,4,6-Tetra-O-benzyl-D-glucopyranose
Lot No.: 1212262



[Comment]
 Sample Name TBG-10.35 Kg LOT
 Comment KBr Pellet
 User K.HARI
 Division QC

[Data Information]
 Creation Date 12/6/2012 12:02 PM
 Data array type Linear data array
 Horizontal Wavenumber [cm-1]
 Vertical %T
 Start 349.053 cm-1
 End 7800.65 cm-1
 Data pitch 0.964233 cm-1
 Data points 7729

Result of Peak Picking

No.	Position	Intensity	No.	Position	Intensity	No.	Position	Intensity
1	3357.46	25.8135	2	3086.51	63.9525	3	3062.41	55.0545
4	3028.66	37.4866	5	2914.88	38.0643	6	2859.92	31.7469
7	1944.86	82.4303	8	1867.72	83.7012	9	1806.97	83.258
10	1747.19	84.2653	11	1645.95	76.7771	12	1634.38	76.7513
13	1603.52	76.34	14	1496.49	46.135	15	1470.46	65.2852
16	1453.1	27.5707	17	1398.14	55.3724	18	1358.6	32.3238
19	1325.82	56.977	20	1311.36	65.1613	21	1275.68	72.4118
22	1261.22	65.6349	23	1213.01	57.7185	24	1147.44	9.14964
25	1087.66	3.25232	26	1046.19	10.0991	27	1026.91	15.4738
28	1001.84	28.2169	29	936.271	72.6281	30	904.451	65.0329
31	858.168	61.0087	32	835.99	68.5108	33	781.993	76.0286
34	744.388	10.0273	35	695.212	4.11046	36	626.752	56.5436
37	608.431	65.6824						



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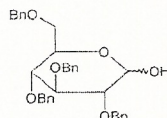
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Lot No.: 1212262



Model P-1030 (A017560639)

Room Temp.

Weight

Operator

K.HARI

Sample

TBG-10.35Kg Lot

Comment

C= 2 % W/V in CHCl₃

Mode

Specific O.R.

Light

Na

Wavelength

589nm

Cell path

100.00 mm

Concentration

2.0130 w/v%

Factor

1.0000

Blank

-0.0016 deg

Interval

5 sec

Integration

5 sec

Average

17.8619

S.D.

0.0939

C.V.

0.5257 %

No.	Sample No	Data	Temp.
1	2(1/ 5)	17.715	20.0
2	2(2/ 5)	17.919	20.1
3	2(3/ 5)	17.829	20.3
4	2(4/ 5)	17.953	20.3
5	2(5/ 5)	17.894	20.3