

Certificate of Analysis

Methyl chloroacetate GC Standard

Product Name	: METHYL CHLOROACETATE GC STANDARD	Product Code	: 98087
Batch Number	: F24K122	CAS Number	: 96-34-4
Molecular Formula	: $C_3H_5ClO_2$	Formula Weight	: 108.52
Mfg. Month & Year	: October, 2024	Exp. Month & Year	: September, 2027

Test	Results	Specification
DESCRIPTION	Complies	A Clear colourless liquid.
GUARANTEED ANALYSIS		
PURITY (GC/FID)*	99.22%	NLT 99.0%
POTENCY	99.14%	NLT 98.5%
DENSITY AT 25°C	1.249 g/ml	1.230-1.250 g/ml
IDENTIFICATION by MASS	Complies	Conforms to Molecular mass
IDENTIFICATION by FT-IR	Complies	Conforms to structure
IDENTIFICATION by 1H NMR	Complies	Conforms to structure
MAXIMUM LIMITS OF IMPURITIES		
WATER (by KF)	0.076%	NMT 0.10%
OTHER IMPURITIES*	0.78%	NMT 1.00%

GC/FID* Conditions :

Column: HP-1 30 m X 0.53 mm X 5.0 μ m
Inj vol. 0.2 μ l, Splitless, Flow 3.0 ml/min (Nitrogen)
Inj temp. 200°C, Det. temp. 250°C
Oven Prog. : 40.0°C 5 min, Ramp: 10°C/min to 220.0°C 2 min

Recommended Storage : Store at room temperature below 30°C in original packing. Keep the container tightly closed away from source of ignition; handle at inert atmosphere.

Note : This is our in-house GC standard properly characterized by analytical data and we do not claim its traceability to any pharmacopoeia reference (whether primary/secondary) standards.

REMARKS:

This is to certify that the above mentioned batch has been analysed at the time of quality release and has been found to be complying with the label claim/prescribed specifications.

Dr. Rashmi Ranjan Mohanty
Director-Technical

This document has been produced electronically and is valid without signature.



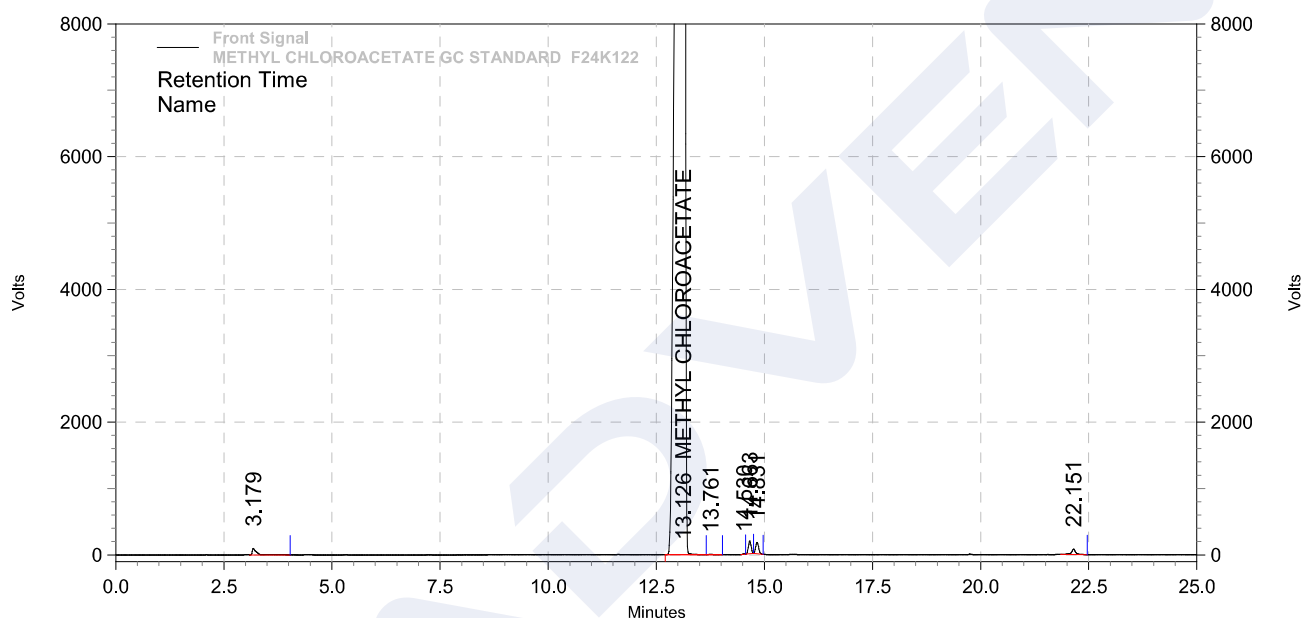
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Gas Chromatogram

Methyl chloroacetate GC Standard Lot. No. F24K122

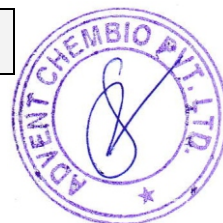
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Method: D:\advent data D\2021 DATA\2022 DATA\Method\ACS STANDARD 40-220 (MANUAL).met
Acquired: 10/11/24 10:03:03 (GMT +05:30)
Printed: 10/11/24 10:30:03 (GMT +05:30)



Front Signal Results

Retention Time	Area	Area %	Height	Height %
3.179	4384454	0.158	759503	0.31
13.126	2755904035	99.218	241569054	98.25
13.761	438635	0.016	62005	0.03
14.530	153355	0.006	42782	0.02
14.663	6435498	0.232	1479955	0.60
14.831	6248495	0.225	1321462	0.54
22.151	4052943	0.146	628880	0.26

Totals	2777617415	100.000	245863641	100.00
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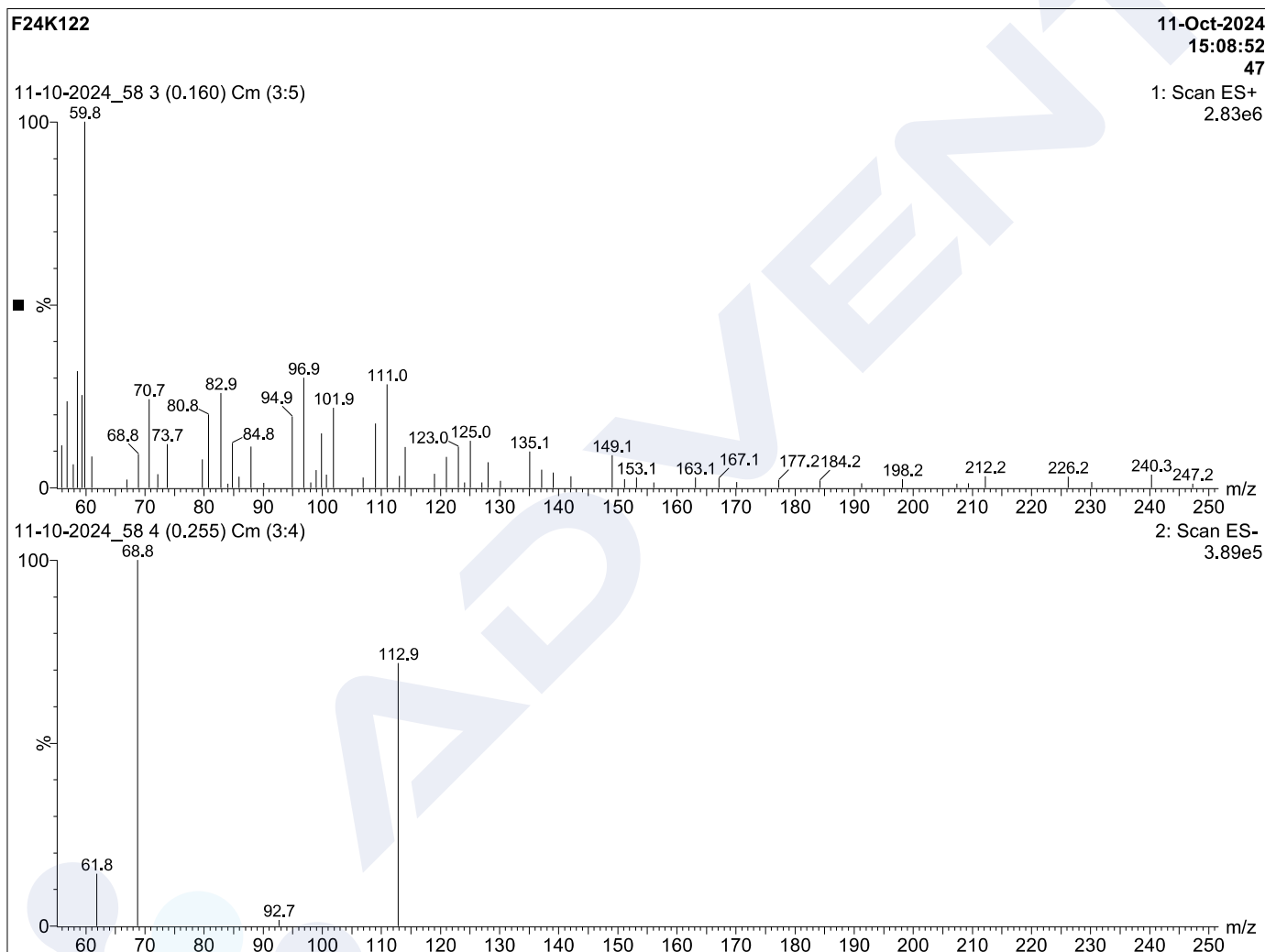


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Mass Spectrometry (MS) Data

Methyl chloroacetate GC Standard
Lot. No. F24K122

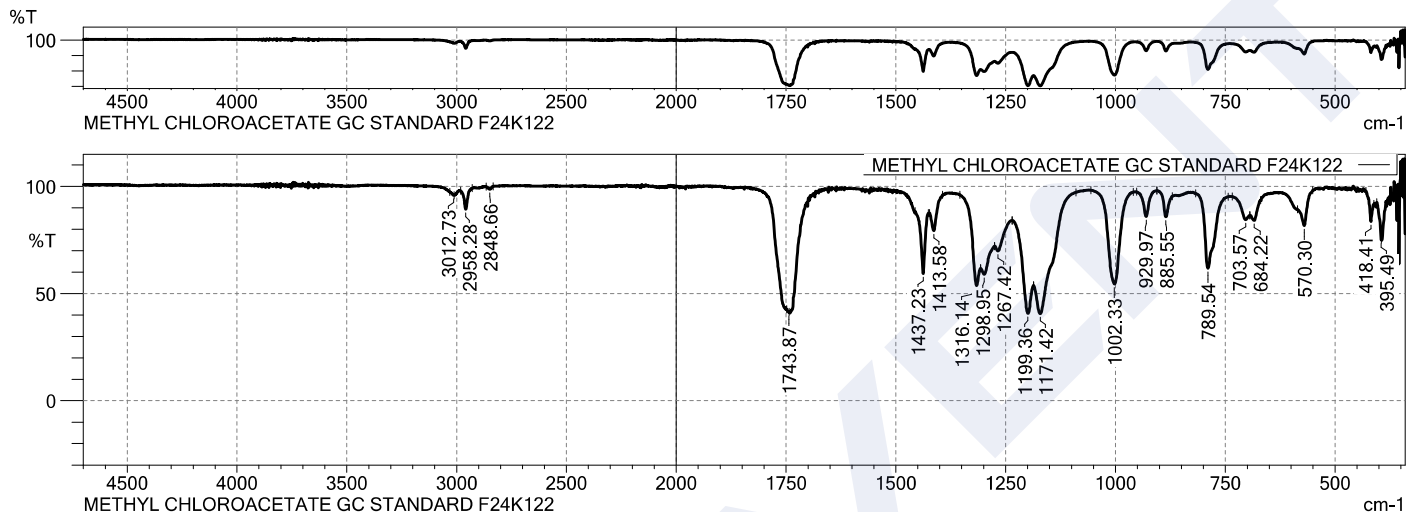


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Infrared Spectroscopy (IR) Data

Methyl chloroacetate GC Standard
Lot. No. F24K122



Instrument ID : ADV/QC/040

User Name : Sachin Patil

Project Name, Data Number, Filename:
 D:\IR data\GC STANDARD 2023\METHYL
 CHLOROACETATE GC STANDARD F24K122.ispd

Acquired Date & Time : 10-10-24 15:38:48

Print Date & Time: 10-10-24 15:42:25

Comment : METHYL CHLOROACETATE GC
 STANDARD F24K122

Scan Range : 340 to 4700 No. Of Scans : 45

Apodization : Happ-Genzel Resolution: 2 [cm-1]

Analysed By: SACHIN PATIL

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Checked By: SWAPNIL PATIL



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Infrared Spectroscopy (IR) Data

Methyl chloroacetate GC Standard
Lot. No. F24K122

No.	Peak	Intensity	Corr. Intensity	Base (H)	Base (L)	Area	Corr. Area	Comment
1	395.49	74.99	1.45	405.52	394.77	153.845	-18.944	
2	418.41	83.54	10.46	429.88	411.97	155.781	63.626	
3	570.30	81.69	11.50	585.35	550.96	357.063	142.230	
4	684.22	84.18	5.19	694.25	669.18	308.190	59.622	
5	703.57	84.52	4.03	734.37	694.25	401.629	37.024	
6	789.54	61.78	34.41	817.48	743.69	1156.157	861.129	
7	885.55	85.78	10.80	905.61	870.50	237.013	123.593	
8	929.97	86.04	11.75	952.18	905.61	271.446	169.105	
9	1002.33	54.55	43.22	1056.07	959.34	1530.396	1318.831	
10	1171.42	40.61	20.00	1186.46	1090.46	2767.142	418.617	
11	1199.36	40.71	21.12	1235.18	1186.46	1825.080	313.224	
12	1267.42	69.95	4.56	1275.30	1235.18	923.363	46.647	
13	1298.95	58.95	5.40	1306.83	1275.30	1101.596	59.895	
14	1316.14	53.68	14.82	1354.12	1306.83	1024.048	26.062	
15	1413.58	79.31	11.09	1423.61	1393.52	369.050	123.217	
16	1437.23	59.35	28.50	1456.57	1425.76	661.016	290.502	
17	1743.87	41.24	0.42	1748.17	1743.16	291.913	1.426	
18	2848.66	98.70	1.23	2865.14	2833.61	21.355	18.866	
19	2958.28	89.34	9.20	2982.64	2928.19	237.435	161.818	
20	3012.73	95.85	0.12	3030.64	3011.30	65.486	0.758	

Analysed By: SACHIN PATIL

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Checked By: SWAPNIL PATIL



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Proton NMR (1H NMR) Data

Methyl chloroacetate GC Standard
Lot. No. F24K122

F24K122_Proton-1-2.jdf
 030872

4.08
 3.81

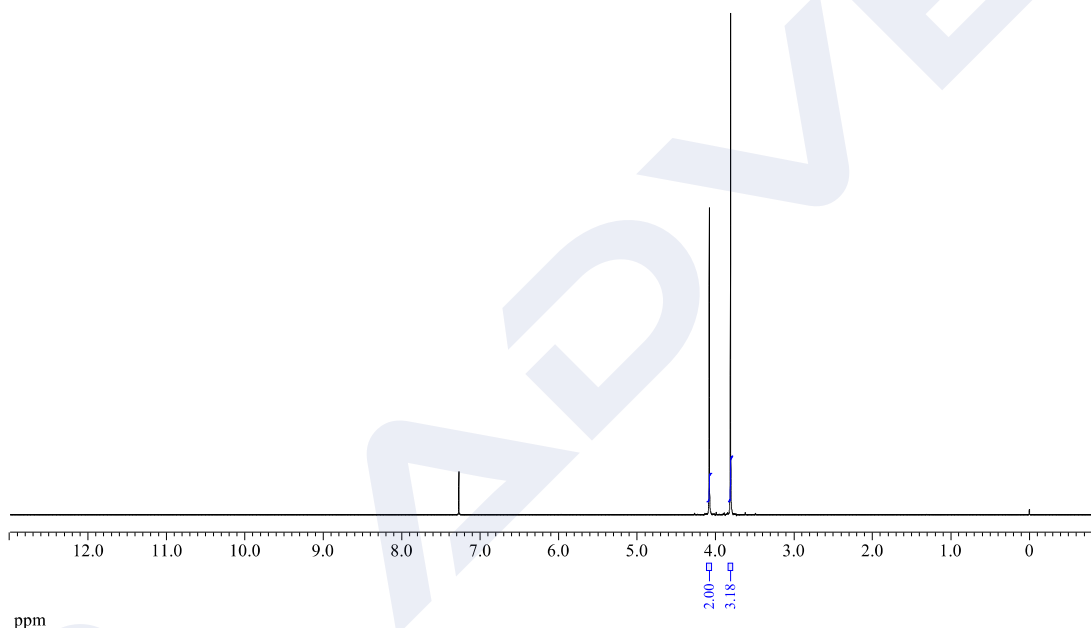


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ppm
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Spectrometer    = NM-70010S4L1
Instrument id    = ABNL/QC/NMR-01
Author          = 1038
Reviewed by     = RMG
Solvent         = CHLOROFORM-D
Acquisition Parameters
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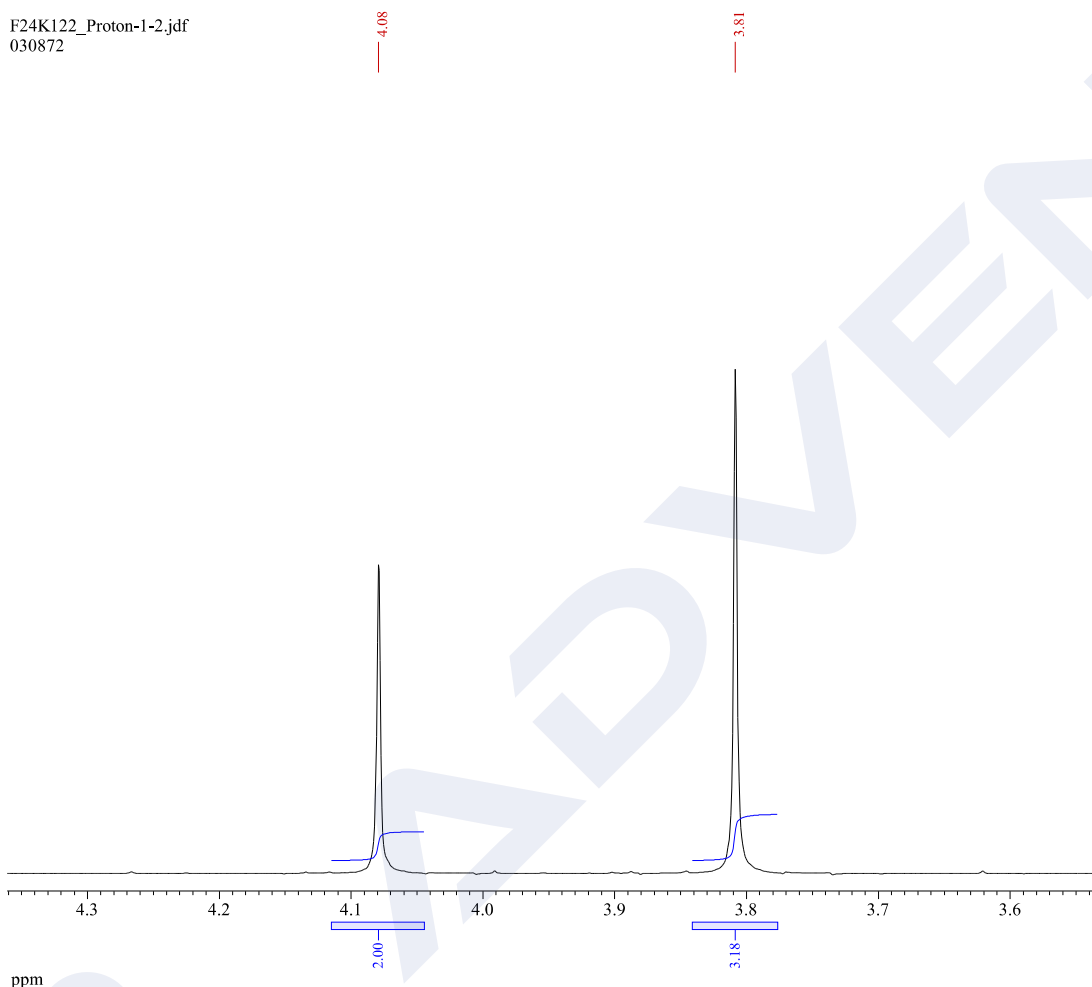
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Methyl chloroacetate GC Standard
Lot. No. F24K122

F24K122_Proton-1-2.jdf
 030872



----- PROCESSING PARAMETERS -----
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 Spectrometer = NM-70010S4L1
 Instrument id = ABNL/QC/NMR-01
 Author = 1038
 Reviewed by = RMG
 Solvent = CHLOROFORM-D
 Acquisition Parameters
 Experiment = proton.jxp
 X_Offset = 7[ppm]
 X_Sweep = 9.00576369[kHz]
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J-Coupling Analysis Report

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3.81 [ppm]	3	s



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