

Certificate of Analysis

Bromochloromethane

PurCert Standard for GC

Product Number	PSR41119	CAS No.	74-97-5
Brand	PureSynth	Lot No.	GFDRYU05C
Molecular Formula	CH ₂ BrCl	Date of Mfg.	May.2023
Molecular Weight	129.38 g/mol	Date of Exp.	April.2027

Test	Specification	Result
Description	Colorless liquid	Colorless liquid
Assay (GC-FID)	≥ 99.0 %	99.02 %
Water (By KF)	NMT 0.2000 %	0.1121 %
Identification by ¹ H NMR	Conforms to structure	Conforms
Identification by GC-MS	Conforms to molecular mass	Conforms
Identification by IR	Conforms to structure	Conforms

***Traceable to Internal Reference Standard**

Storage Condition: Store at room temperature and keep the container tightly closed.

Remark: The batch complies with the prescribed quality of the above specification.

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Assay by GC-FID

METHOD: GC- FID conditions:

Column: Agilent Technologies DB-FFAP 30mx 0.530mm, 1.0micron

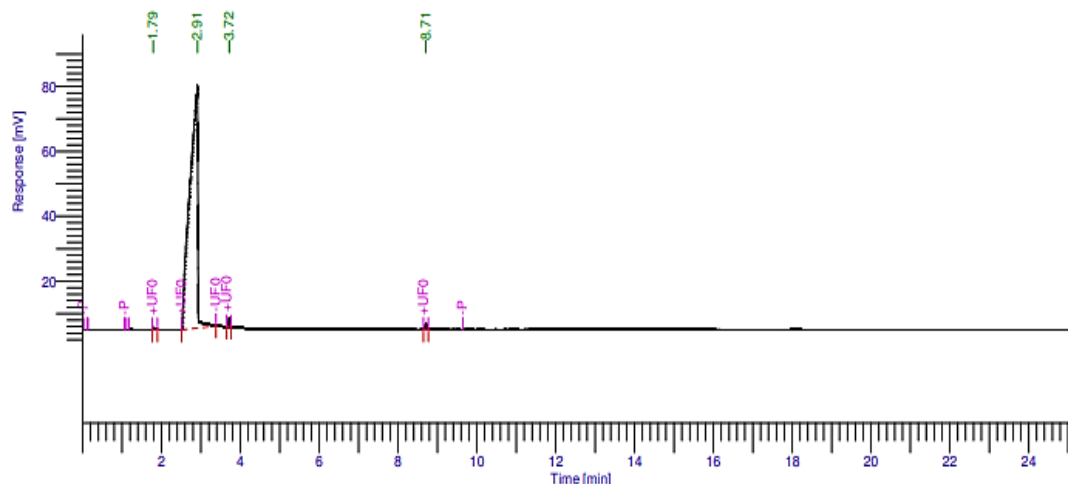
Instrument: PerkinElmer, GC 2014,

Detector: FID, **Carrier gas:** Nitrogen

Temp programming: Initial 50°C hold for 1min, 5° C Ramp/ min., 100 °C hold for 1 min., 25°C Ramp up to 250°C hold for 2 min., Run time 20 min.

Software Version : 6.3.4.0700
Operator : manager
Sample Number : 1
AutoSampler : BUILT-IN
Instrument Name : Clarus 680
Instrument Serial # : None
Delay Time : 0.00 min
Sampling Rate : 12.5000 pts/s
Sample Volume : 1.000000 ul
Sample Amount : 1.0000
Data Acquisition Time : 11/07/2023 1.33.44 PM

Date : 11/07/2023 4.20.59 PM
Sample Name : AR23000366-BROMOCHLOROMETHANE-GFDRYU05C
Study : GC Purity
Rack/Vial : 0/106
Channel : A
A/D mV Range : 1000
End Time : 25.27 min
Area Reject : 0.000000
Dilution Factor : 1.00
Cycle : 1



GC Reports

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Area [%]
1		1.791	1610.32	624.48	0.15
2		2.913	1065507.72	74839.73	99.02
3		3.719	4896.38	2806.71	0.46
4		8.707	4074.66	1847.42	0.38
			1076089.09	80118.33	100.00

Missing Component Report
Component Expected Retention (Calibration File)

All components were found

Purity by GC-FID: 99.02 %

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IDENTIFICATION TESTS

GC-MS Spectrum:

METHOD: GC-MS conditions:

Column: Agilent Technologies, Elite -5MS, 30 m X 0.25 mm, 1.0micron

Instrument: Perkin Elmer, **Carrier gas:** Helium

Source Temp.: 230°C, Transfer line: 250°C

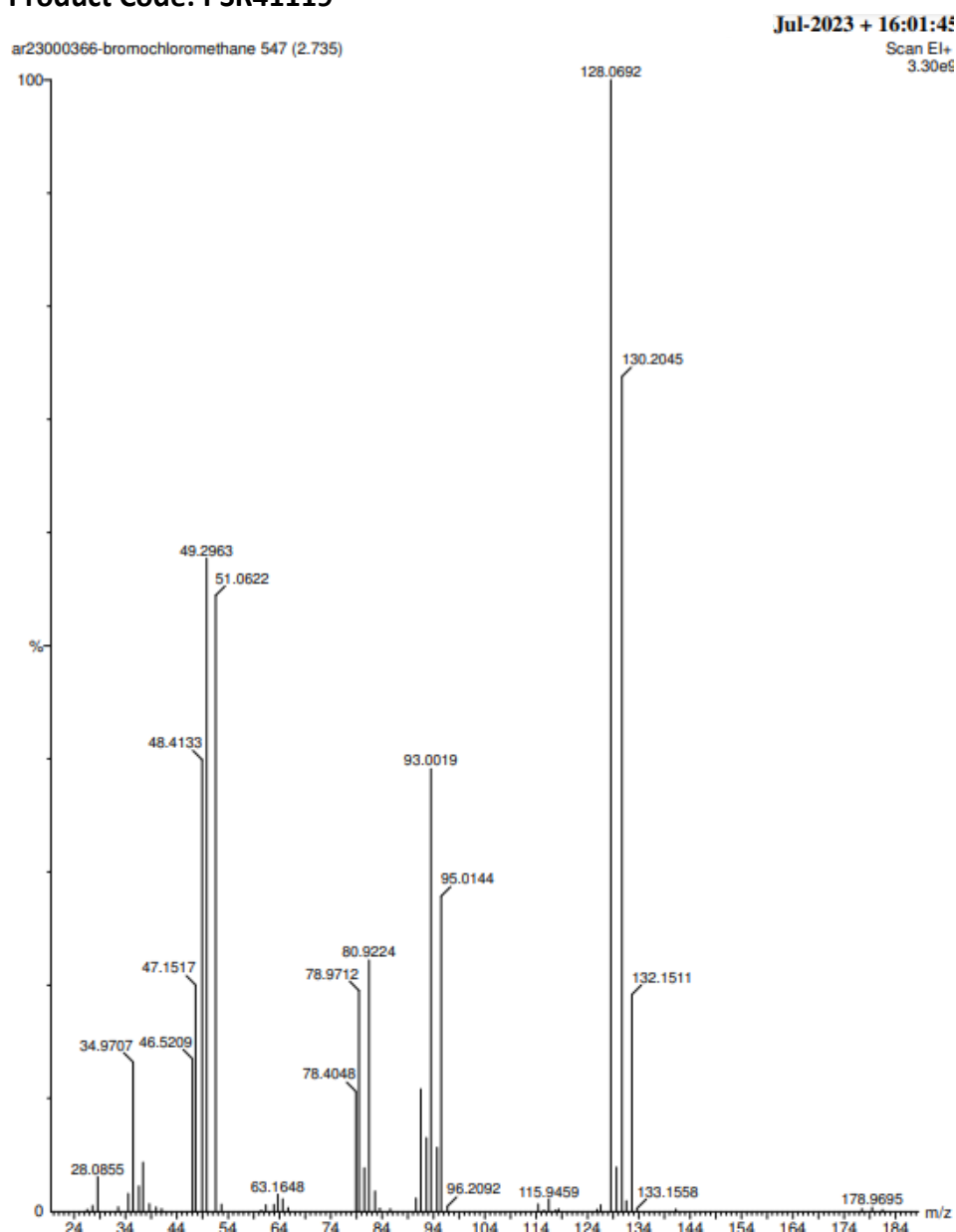
Inlet Temp.: 180°C, **Diluent:** Methanol

Source energy: 70eV

Mass by GC-MS:

Product Name: Bromochloromethane

Product Code: PSR41119



Identification by GC-MS: Conforms to molecular mass

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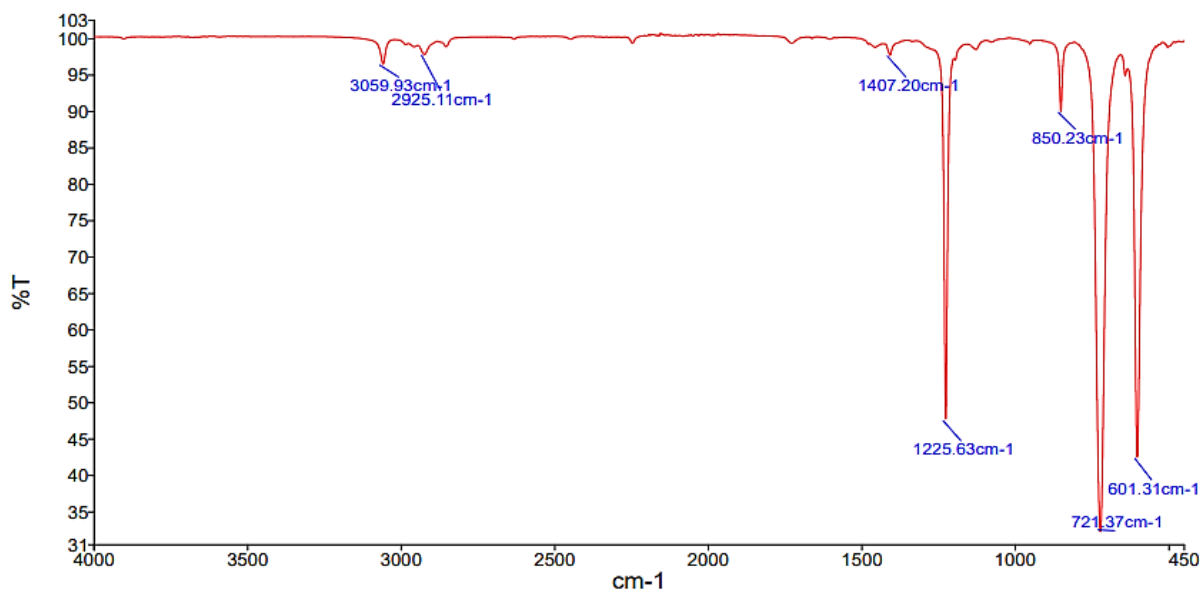
Infrared spectrum:

Product Name: Bromochloromethane

Product Code: PSR41119

PerkinElmer Spectrum IR Version 10.7.2
11 July 2023

Analyst
Date



Source Spectra Results		
Spectrum Name		Number Of Peaks
AR23000019-BROMOCHLORO METHANE-GFDRYU05C_1		7
List of Peak Area/Height		
Peak Number	X (cm-1)	Y (%T)
1	3059.93	96.59
2	2925.11	97.93
3	1407.20	97.81
4	1225.63	47.74
5	850.23	90.06
6	721.37	32.23
7	601.31	42.54

Identification by IR: Conforms to structure

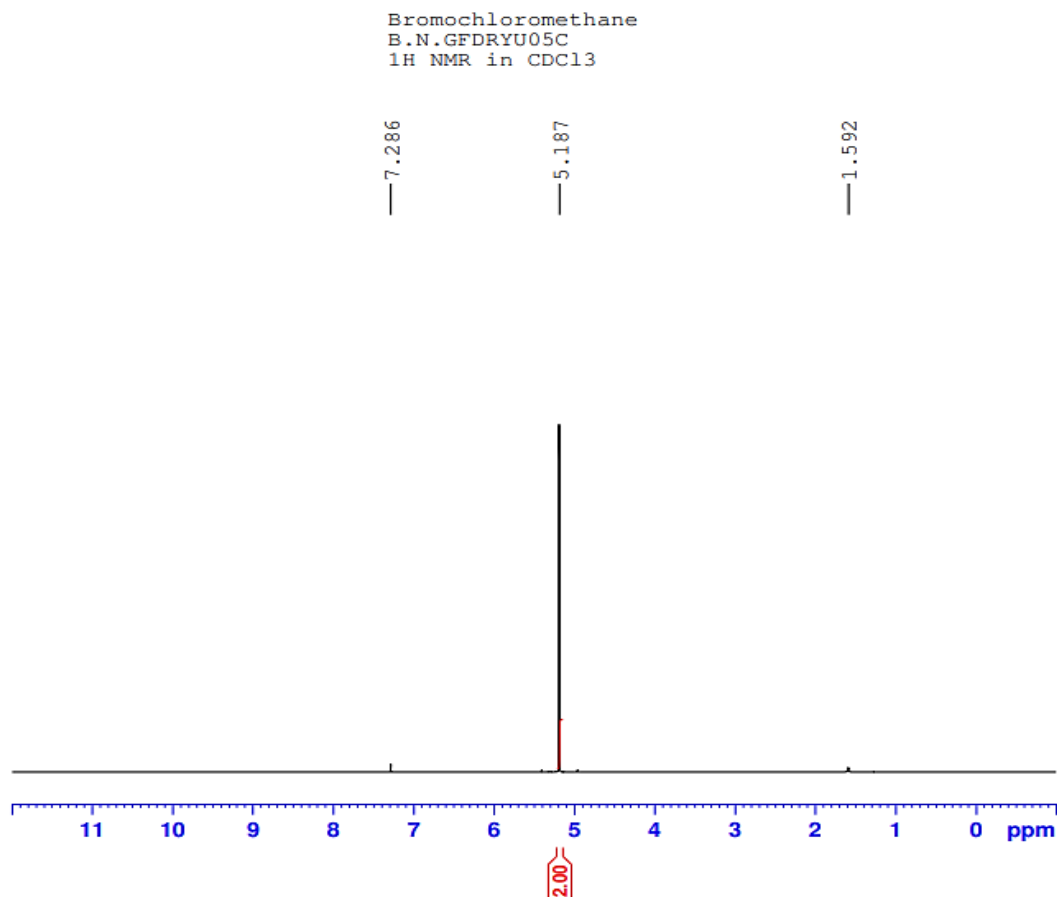
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¹H NMR Spectrum:

Product Name: Bromochloromethane

Product Code: PSR41119



Identification by ¹H NMR: Conforms to structure

Maximum limits of impurities

WATER DETERMINATION

Method: Karl Fisher titration

Water Content (PSR41119) = **0.1121 %**

Approved By
Head - Technical

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