PureSynth
Research Chemicals

Certificate of Analysis

Benzyl bromide

PurTech Standard for GC

Product Number	PSI132	**CAS No.**	100-39-0
Brand	PureSynth	**Lot No.**	FRDHP
Molecular Formula	C_7H_7Br	**Date of Mfg.**	May.2022
Molecular Weight	171.04 g/mol	**Date of Exp.**	Apr.2026

Test	Specification	Result
Description	Colorless to light yellow liquid	Light yellow liquid
Assay (GC-FID)	≥ 99.5 %	99.75 %
Water (By KF)	NMT 0.1 %	0.0923 %
Identification by ^1H 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 container tightly closed.

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

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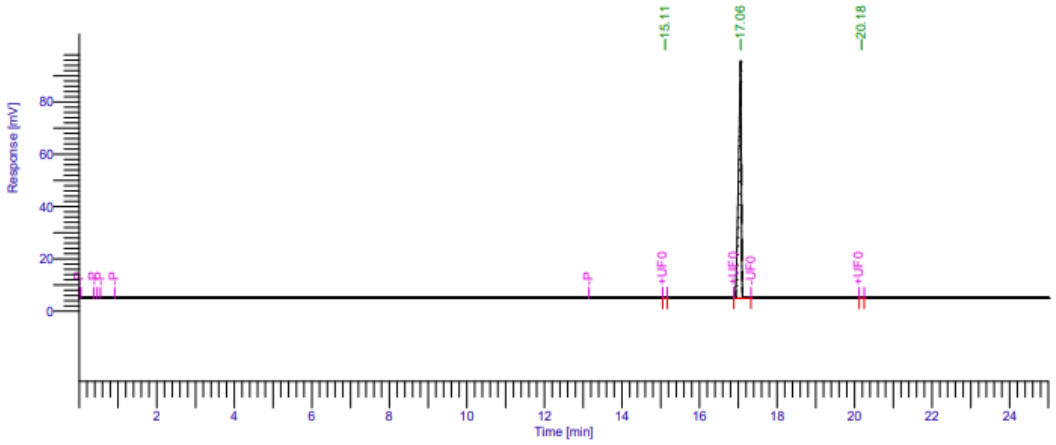
Assay by GC-FID

METHOD: G.C- 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	Date	: 12/08/2022 3.14.20 PM
Operator	: manager	Sample Name	: AR22000379-BENZYL BROMIDE-FRD HP
Sample Number	: 1		
AutoSampler	: BUILT-IN		
Instrument Name	: Clarus 680	Study	: GC Purity
Instrument Serial #	: None	Rack/Vial	: 0/7
Delay Time	: 0.00 min	Channel	: A
Sampling Rate	: 12.5000 pts/s	A/D mV Range	: 1000
Sample Volume	: 1.000000 ul	End Time	: 25.00 min
Sample Amount	: 1.0000		
Data Acquisition Time	: 12/08/2022 1.46.29 PM	Area Reject	: 0.000000
		Dilution Factor	: 1.00
		Cycle	: 1



GC Reports

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Area [%]
1		15.112	687.13	374.52	0.15
2		17.061	449318.87	90713.28	99.75
3		20.180	431.31	177.36	0.10
			450437.30	91265.15	100.00

Missing Component Report

Component	Expected Retention (Calibration File)

All components were found

Purity by GC-FID: 99.75 %

This is a computer-generated report -does not required sign

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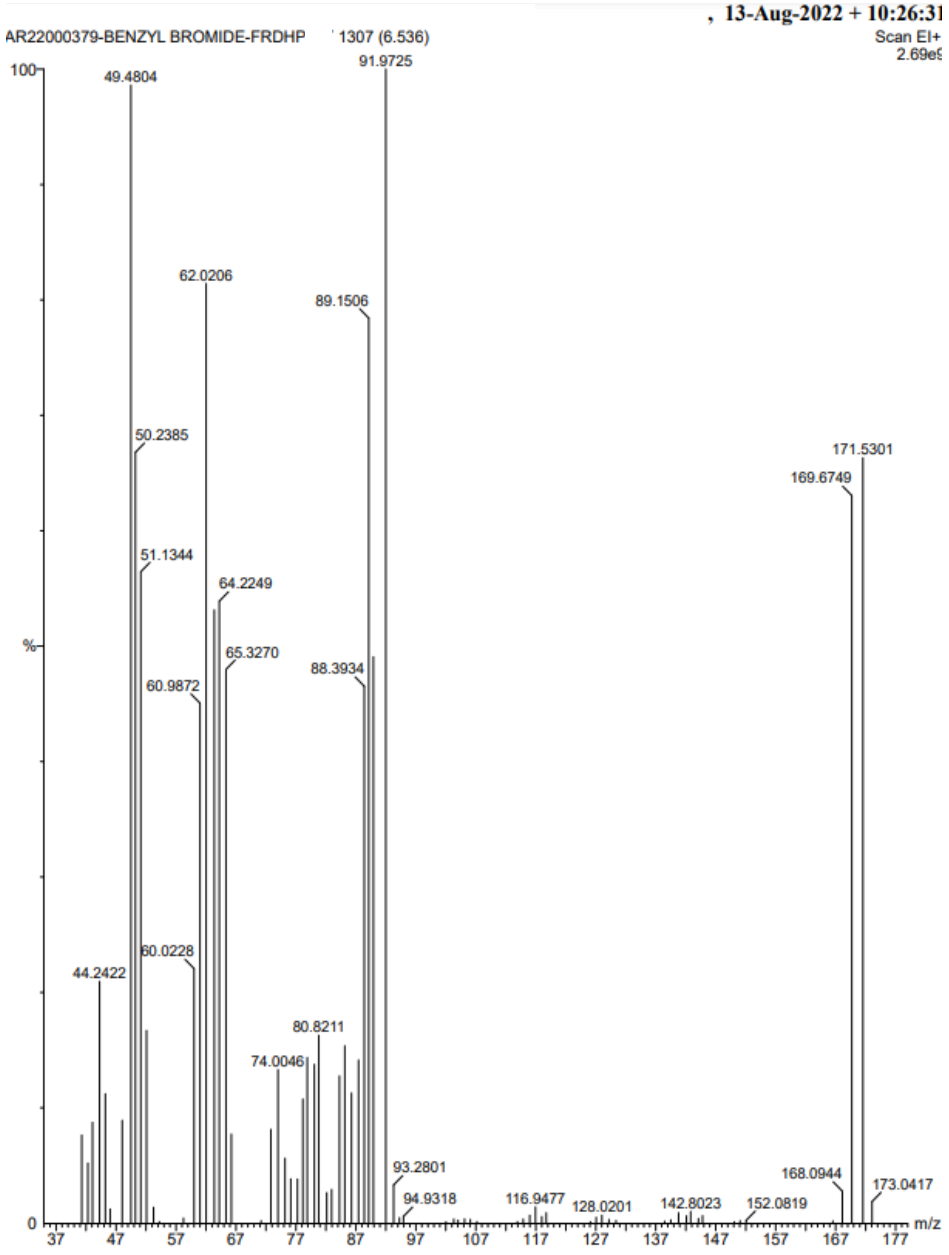
IDENTIFICATION TESTS

GC-MS Spectrum:

METHOD: G.C-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: Benzyl bromide
Product Code: PSI132

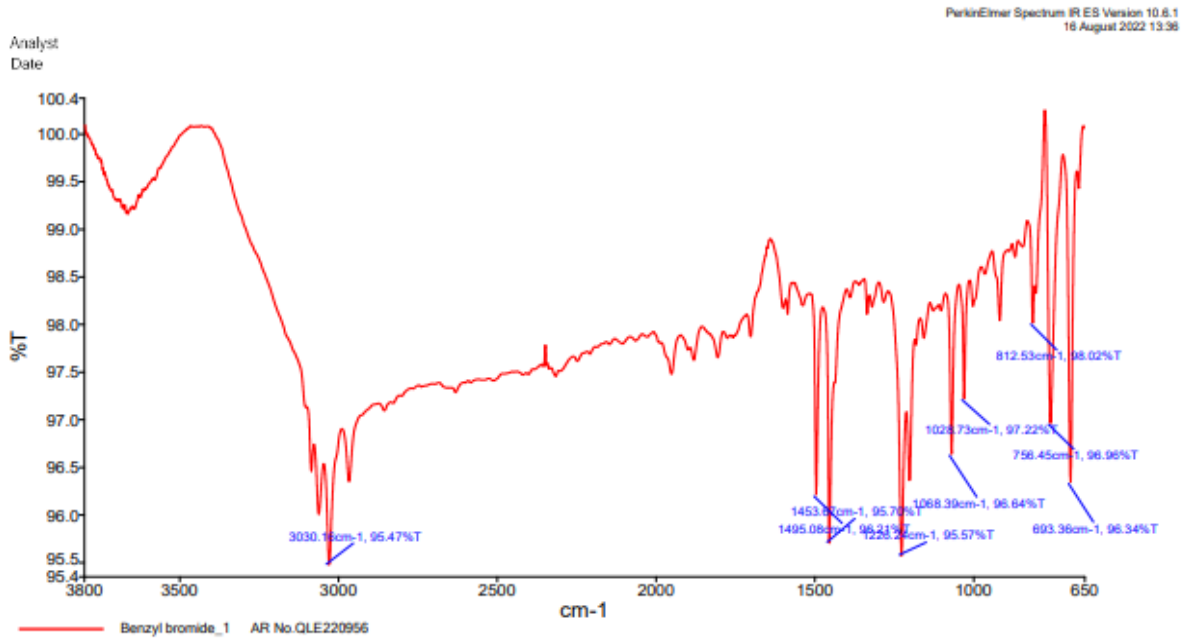


Identification by GC-MS: Conforms to molecular mass

Infrared spectrum:

Product Name: Benzyl bromide

Product Code: PSI132



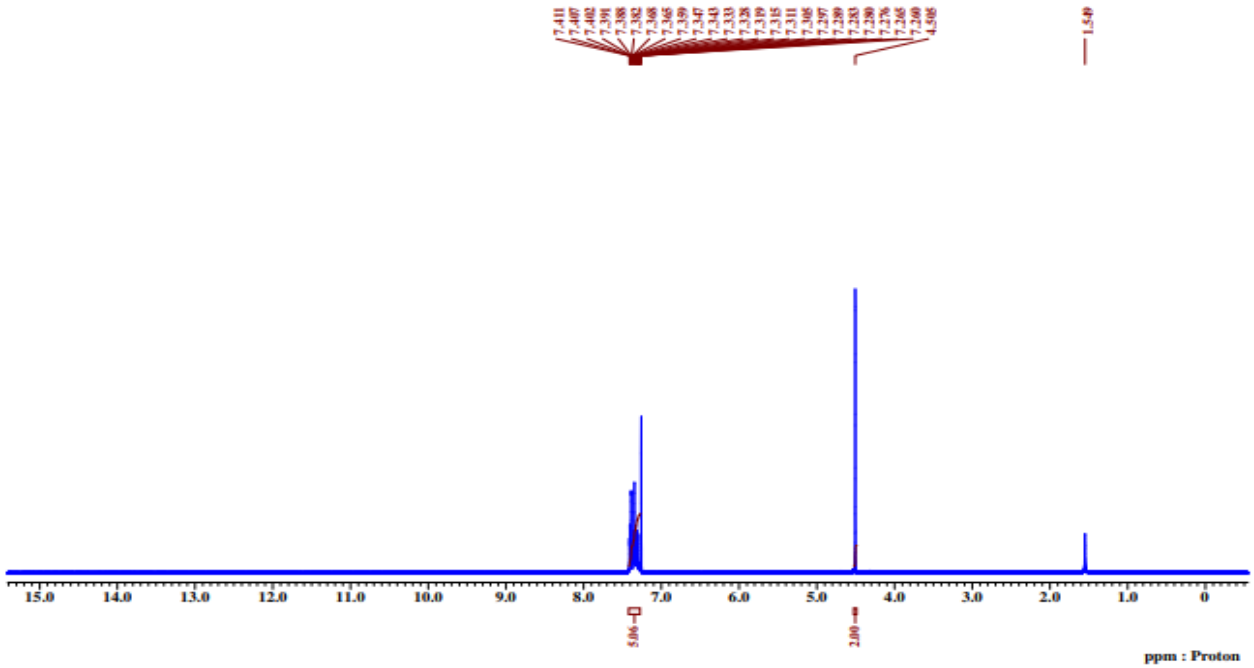
Source Spectra Results	
Spectrum Name	Number Of Peaks
Benzyl bromide_1	9

List of Peak Area/Height		
Peak Number	X (cm-1)	Y (%T)
1	3030.16	95.47
2	1495.08	96.21
3	1453.67	95.70
4	1226.24	95.57
5	1068.39	96.64
6	1028.73	97.22
7	812.53	98.02
8	756.45	96.96
9	693.36	96.34

Identification by IR: Conforms to structure

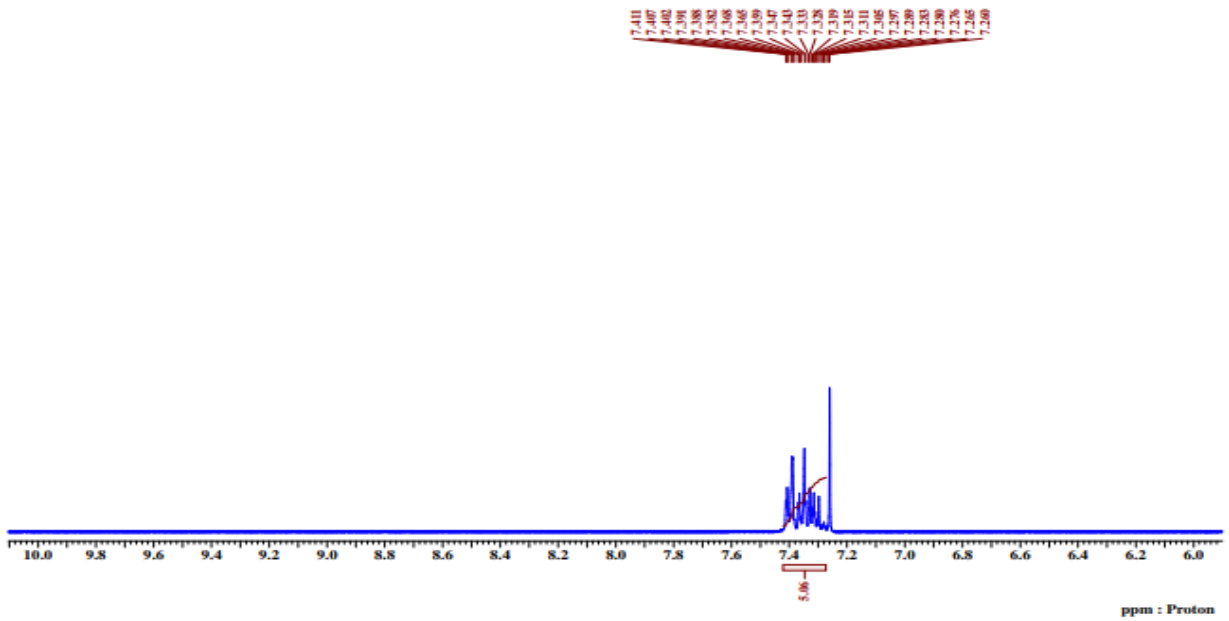
^{1}H NMR Spectrum:

Product Name: Benzyl bromide
Product Code: PSI132



Sample_Id	= Benzyl bromide-FRDMP	Experiment	= proton.jxp	Relaxation_Delay	= 5[s]
Author	= delta	X_Domain	= Proto	Exp_Total	= 205.0[s]
Creation_Time	= 18-AUG-2022 18:07:04	Dim_Title	= Proton		
Revision_Time	= 18-AUG-2022 18:52:28	Solvent	= CHLOROFORM-D		
Experiment Details		Scans	= 19		
Instrument	:JEOL[Delta V5.3.2]	Temp_Get	= 18.8[dC]		
Spectrometer	= JNM-ECZ400S/L1	X_Acq_Time	= 1.16916224[s]		

^{1}H NMR Spectrum: Expansion



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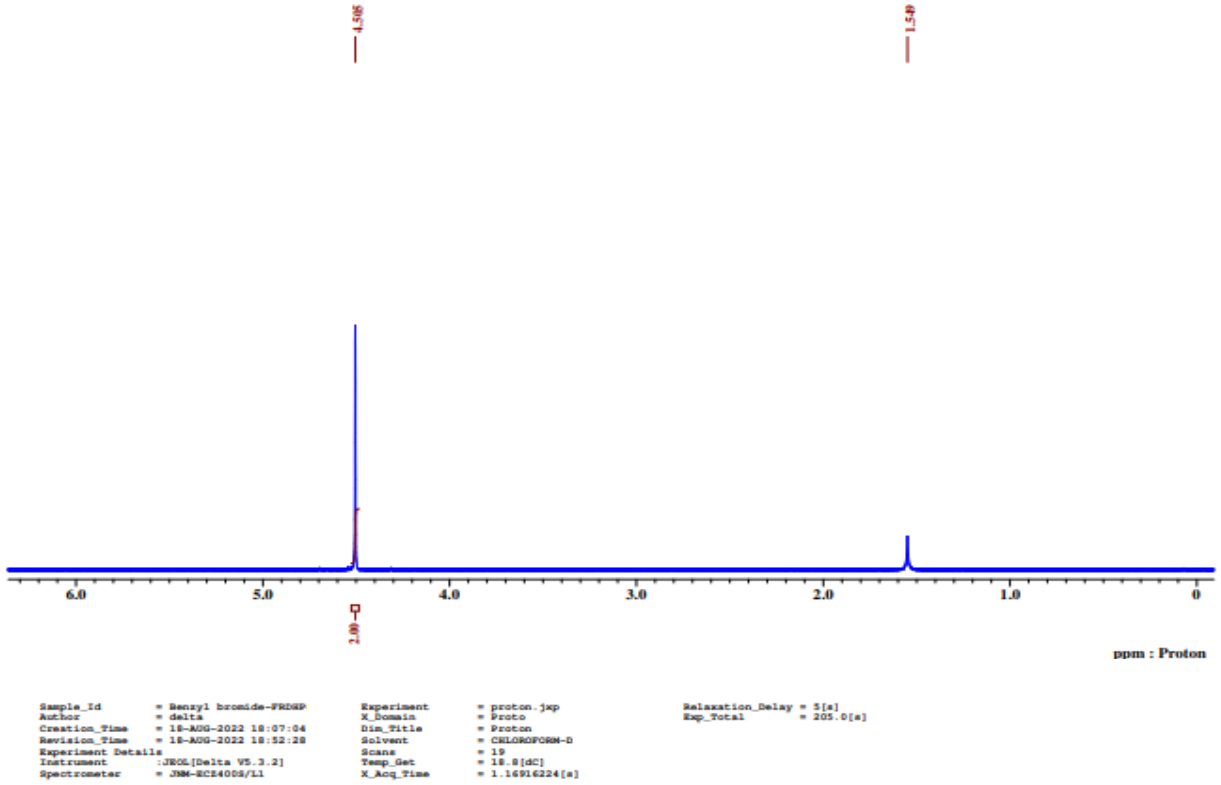

Identification by ^{1}H NMR: Conforms to structure

Maximum limits of impurities

WATER DETERMINATION

Method: Karl Fisher titration

Water Content (PSI132) = **0.0923 %**

Approved By

Head - Technical