

Certificate of Analysis

Pyridine

PurCert Standard for GC

Product Number	PSR28271	CAS No.	110-86-1
Brand	PureSynth	Lot No.	T2FDT07P
Molecular Formula	C ₅ H ₅ N	Date of Mfg.	July.2023
Molecular Weight	79.10 g/mol	Date of Exp.	June.2027

Test	Specification	Result
Description	Colorless liquid	Colorless liquid
Assay (GC-FID)	≥ 99.00 %	99.02 %
Water (By KF)	NMT 0.1000 %	0.0759 %
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 USP Reference Standard 1601747, Lot no: R10900.**

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:

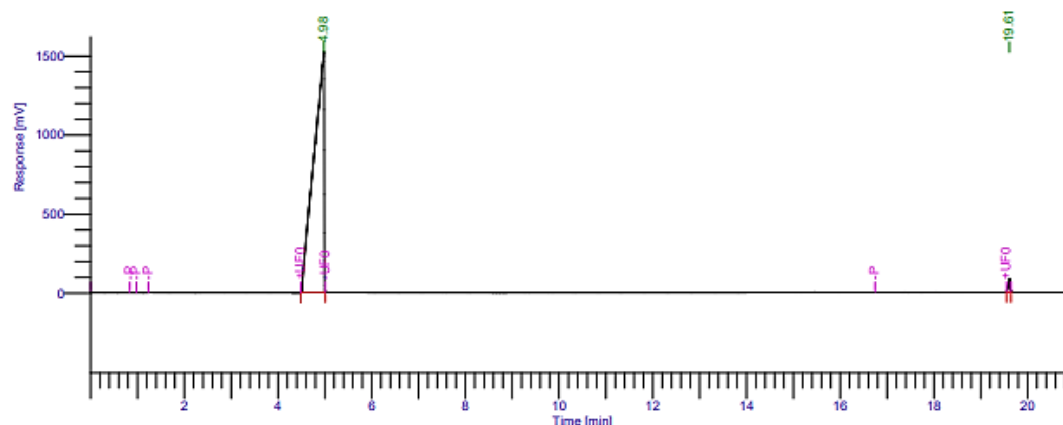
Column: Agilent Technologies DB-FFAP 30mx 0.530mm, 1.0micron

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	Date	: 23-09-2023 12:57:00
Operator	: manager	Sample Name	: PYRIDINE-T2FDT07P
Sample Number	: 001	Study	:
AutoSampler	: BUILT-IN	Rack/Vial	: 0/20
Instrument Name	: Clarus 690	Channel	: A
Instrument Serial #	: None	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 21.00 min
Sampling Rate	: 12.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 0.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 23-09-2023 11:22:46	Cycle	: 1



GC Reports

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Area [%]
1		4.980	22919707.64	1.52e+06	99.02
2		19.611	227486.61	84299.09	0.98
		23147194.25	1.61e+06	100.00	

Warning -- Signal level out-of-range in peak

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

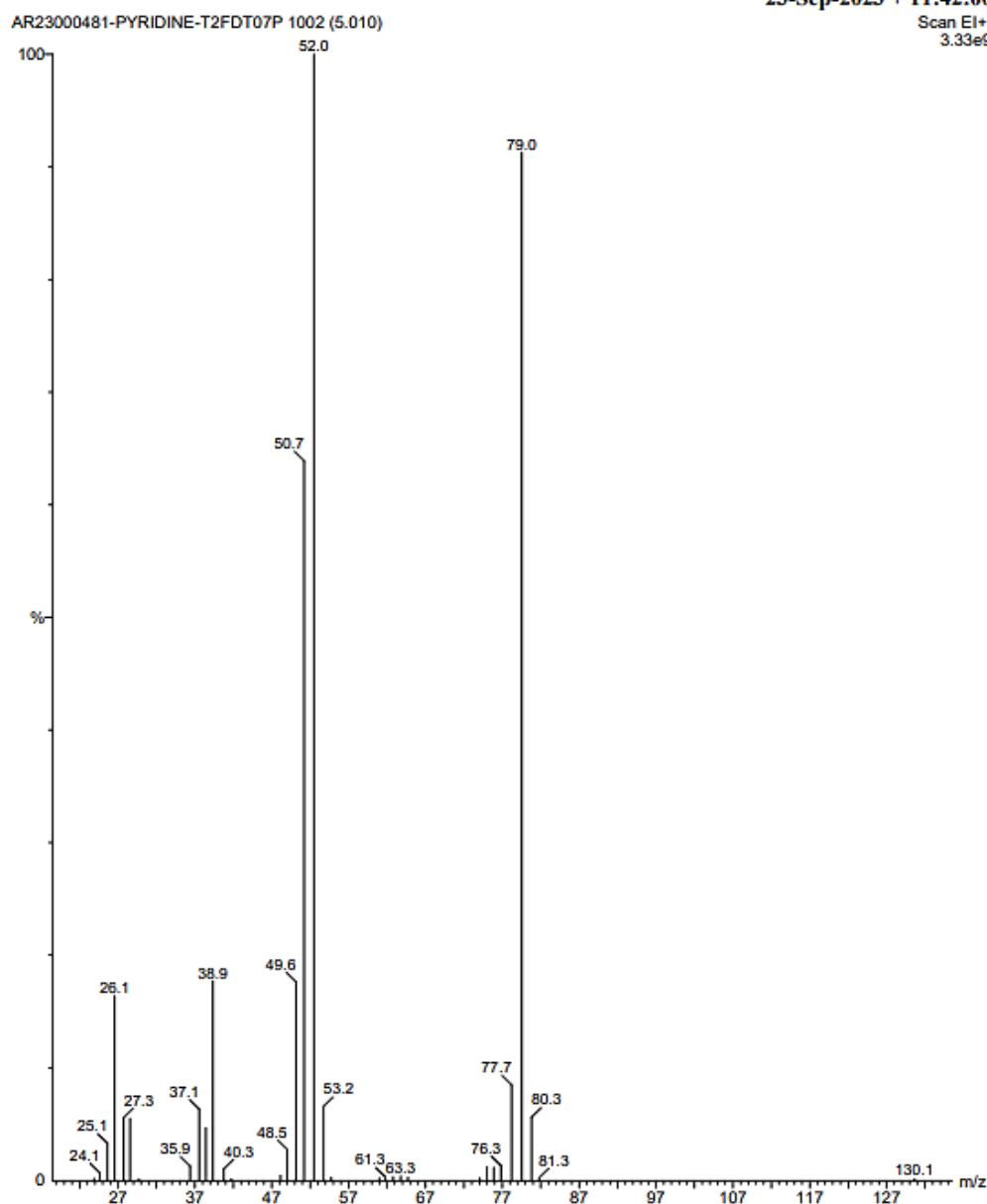
Mass by GC-MS:

Product Name: Pyridine

Product Code: PSR28271

23-Sep-2023 + 11:42:00

Scan EI+
3.33e9



Identification by GC-MS: Conforms to molecular mass

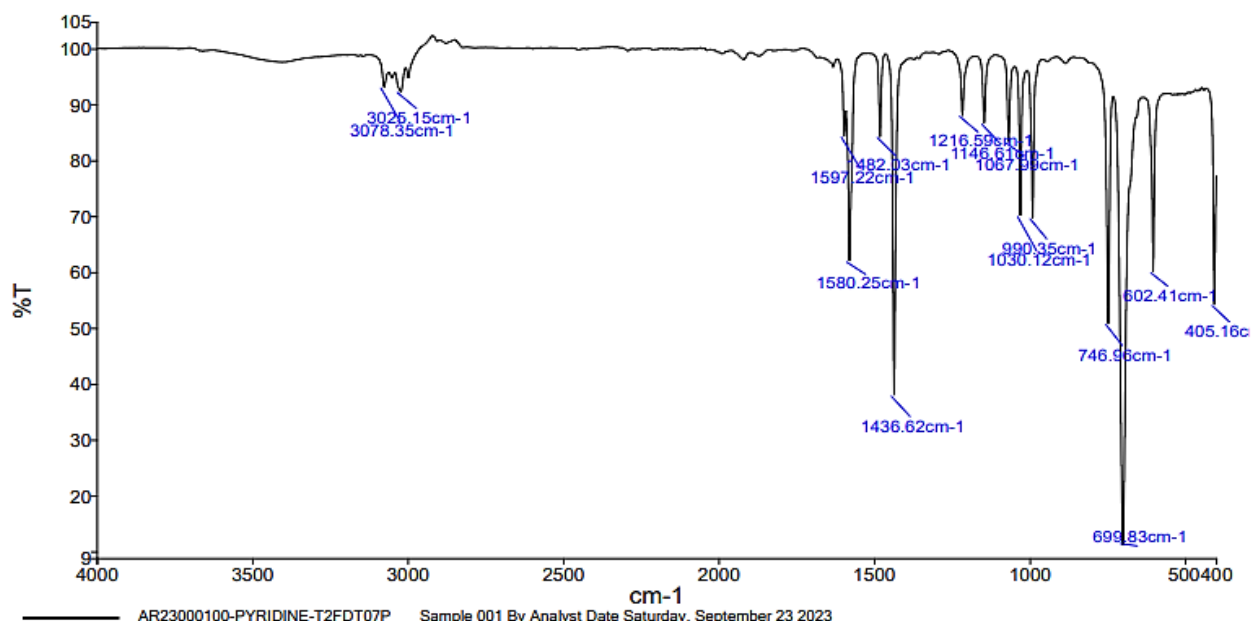
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Infrared spectrum:

Product Name: Pyridine

Product Code: PSR28271



Source Spectra Results		
Spectrum Name		Number Of Peaks
AR23000100-PYRIDINE-T2FDT07P		15
List of Peak Area/Height		
Peak Number	X (cm-1)	Y (%T)
1	3078.35	93.32
2	3025.15	92.49
3	1597.22	84.51
4	1580.25	62.17
5	1482.03	84.42
6	1436.62	38.14
7	1216.59	88.22
8	1146.61	86.87
9	1067.99	83.50
10	1030.12	70.27
11	990.35	69.92
12	746.96	50.97
13	699.83	11.14
14	602.41	60.24
15	405.16	54.34

Identification by IR: Conforms to structure

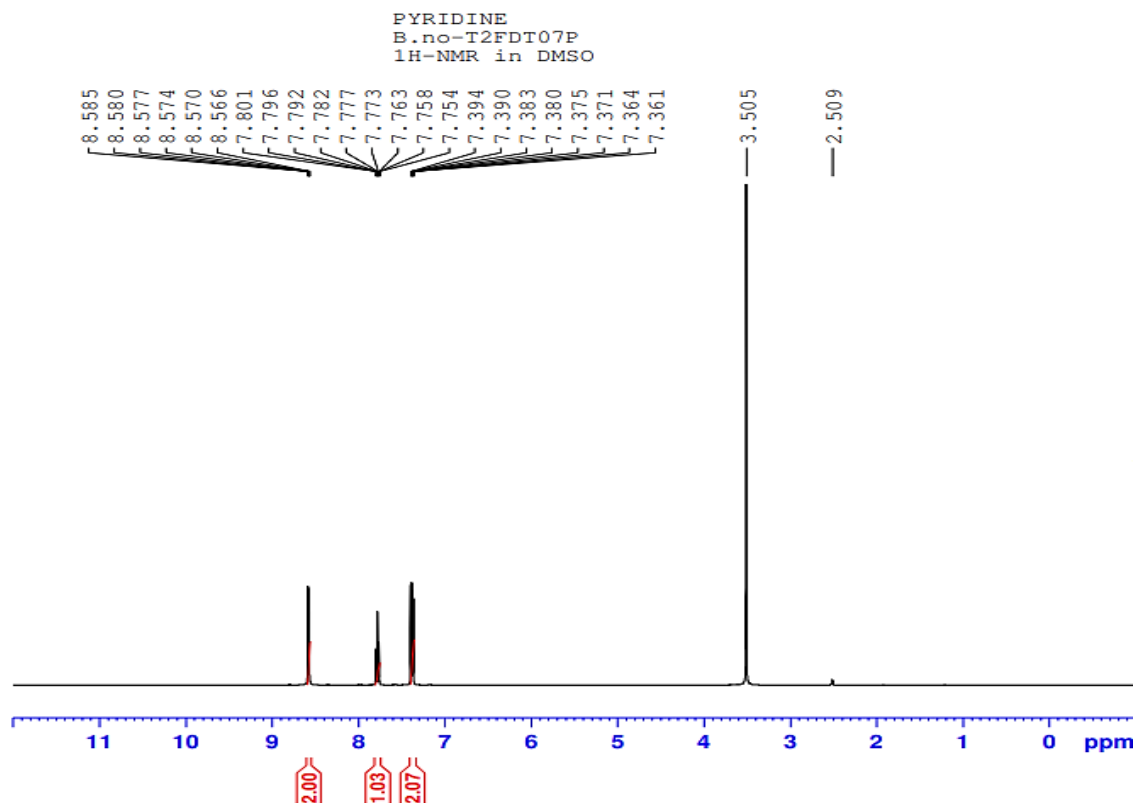
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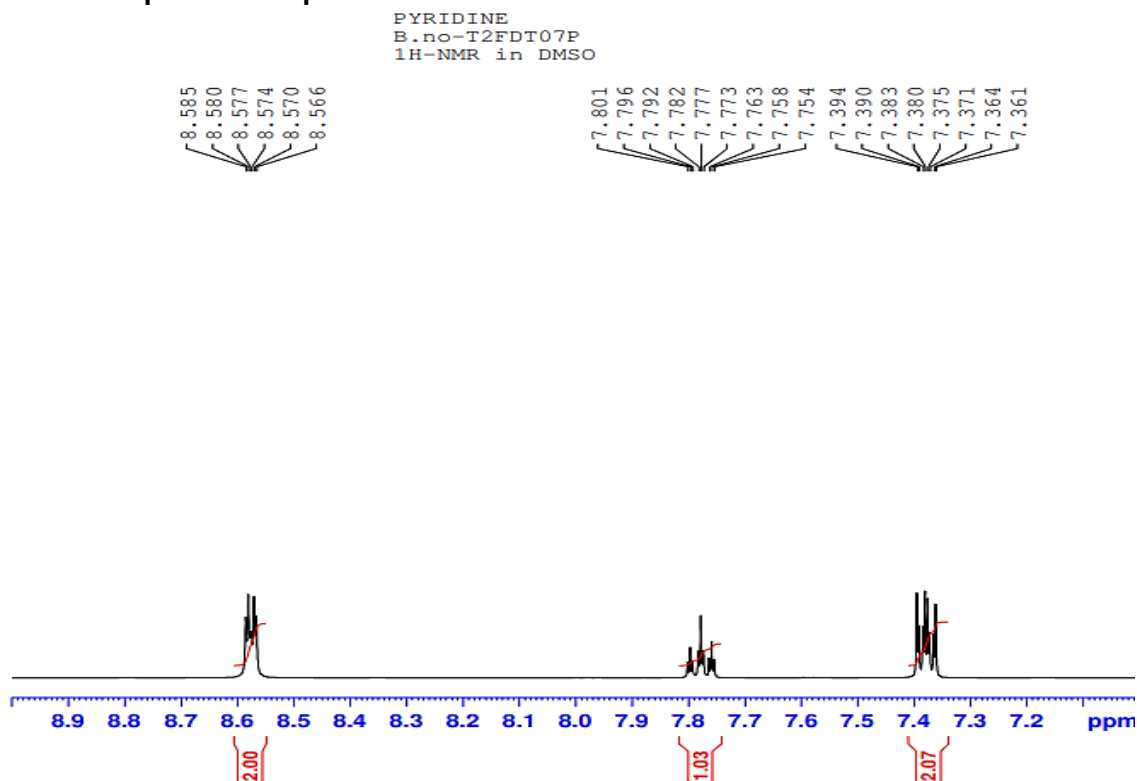
¹H NMR Spectrum:

Product Name: Pyridine

Product Code: PSR28271



¹H NMR Spectrum: Expansion



Identification by ¹H NMR: Conforms to structure

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Maximum limits of impurities

WATER DETERMINATION

Method: Karl Fisher titration

Water Content (PSR28271) = **0.0759 %**

Approved By
Head - Technical

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