PureSynth™
Research Chemicals

Certificate of Analysis

Pyridine

PurTech Standard for GC

(Secondary Reference Standard)

Product Number	PSI027	**CAS No.**	110-86-1
Brand	PureSynth	**Lot No.**	P28271P
Molecular Formula	C_5H_5N	**Date of Mfg.**	March,2025
Molecular Weight	79.10 g/mol	**Date of Exp.**	February,2030

Test	Specification	Result
Description	Colorless liquid	Colorless liquid
Assay (GC-FID)	≥ 99.00 %	99.97 %
Water (By KF)	NMT 0.1000 %	0.0728 %
Density	0.975-0.980 g/cm^3	0.978 g/cm^3
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.

PureSynth Research Chemicals GmbH, 64683 Einhausen Marie-Curie-StraBe. 3, Germany

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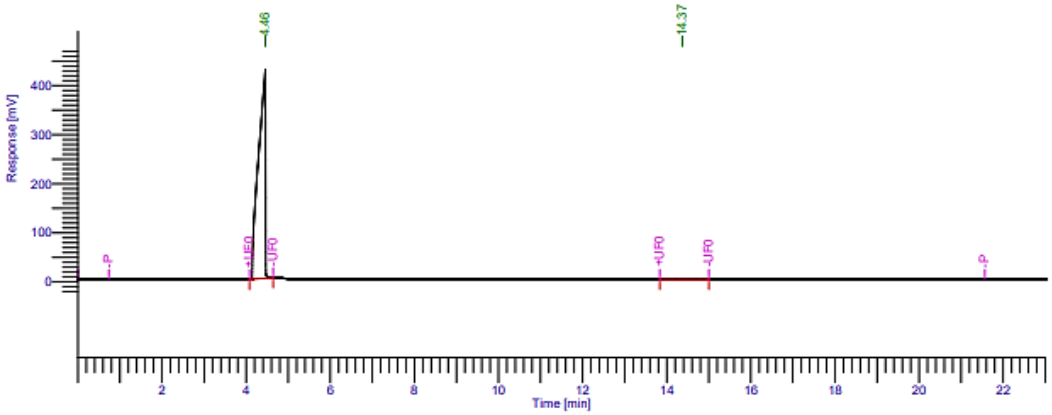
Assay by GC-FID

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	: 08-04-2025 16:25:41
Operator	: manager	Sample Name	: PYRIDINE-P28271P
Sample Number	: 001	Study	:
AutoSampler	: BUILT-IN	Rack/Vial	: 0/22
Instrument Name	: Clarus 690	Channel	: A
Instrument Serial #	: None	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 23.00 min
Sampling Rate	: 12.5000 pts/s		
Sample Volume	: 1.000000 ul		
Sample Amount	: 1.0000	Area Reject	: 0.000000
Data Acquisition Time	: 08-04-2025 15:42:49	Dilution Factor	: 1.00
		Cycle	: 1



GC Reports

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Area [%]
1		4.456	4911169.62	424626.74	99.97
2		14.367	1424.48	38.49	0.03
			4912594.10	424665.23	100.00

Missing Component Report

Component	Expected Retention (Calibration File)

All components were found

Purity by GC-FID: 99.97 %

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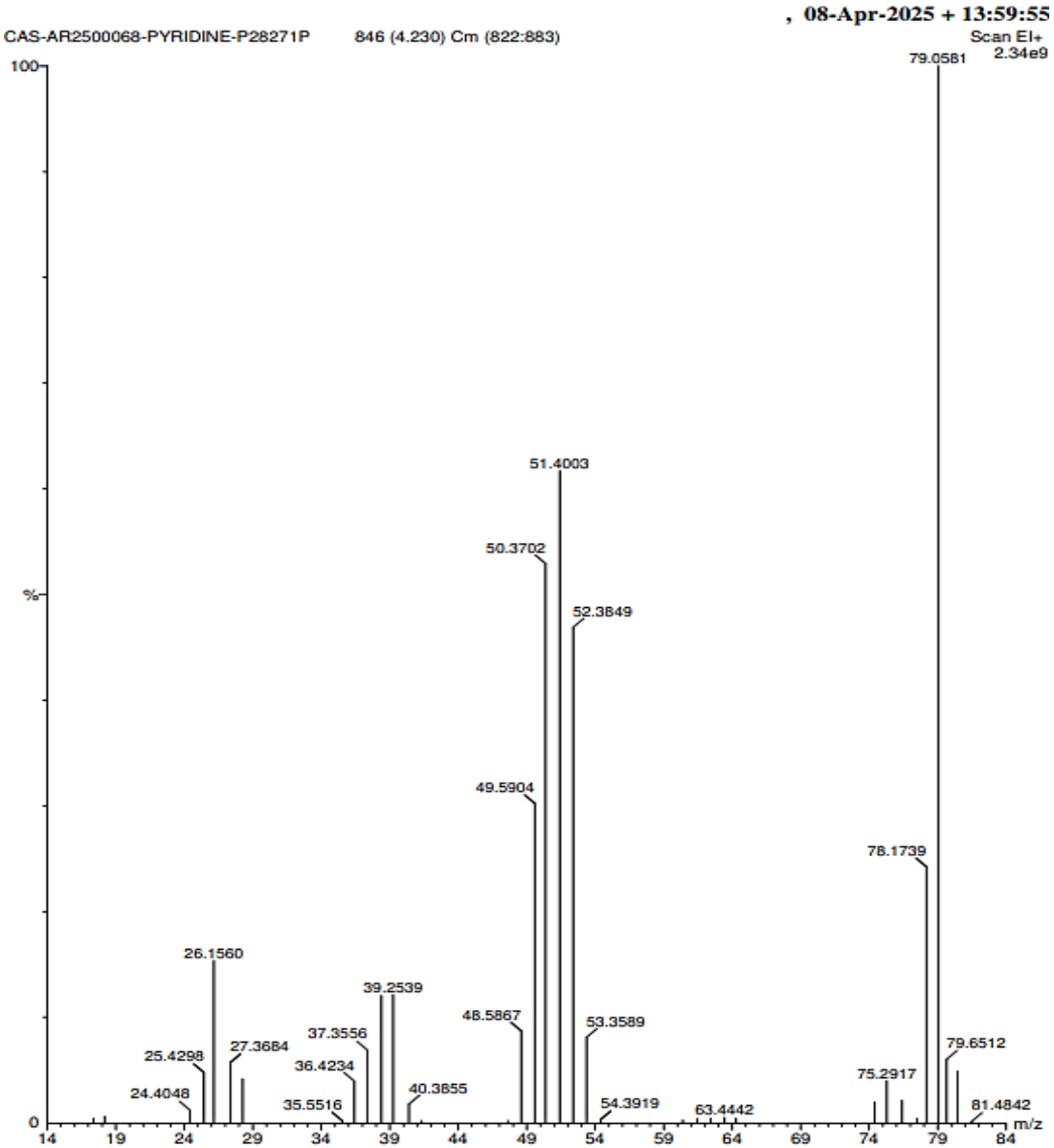
IDENTIFICATION TESTS

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:

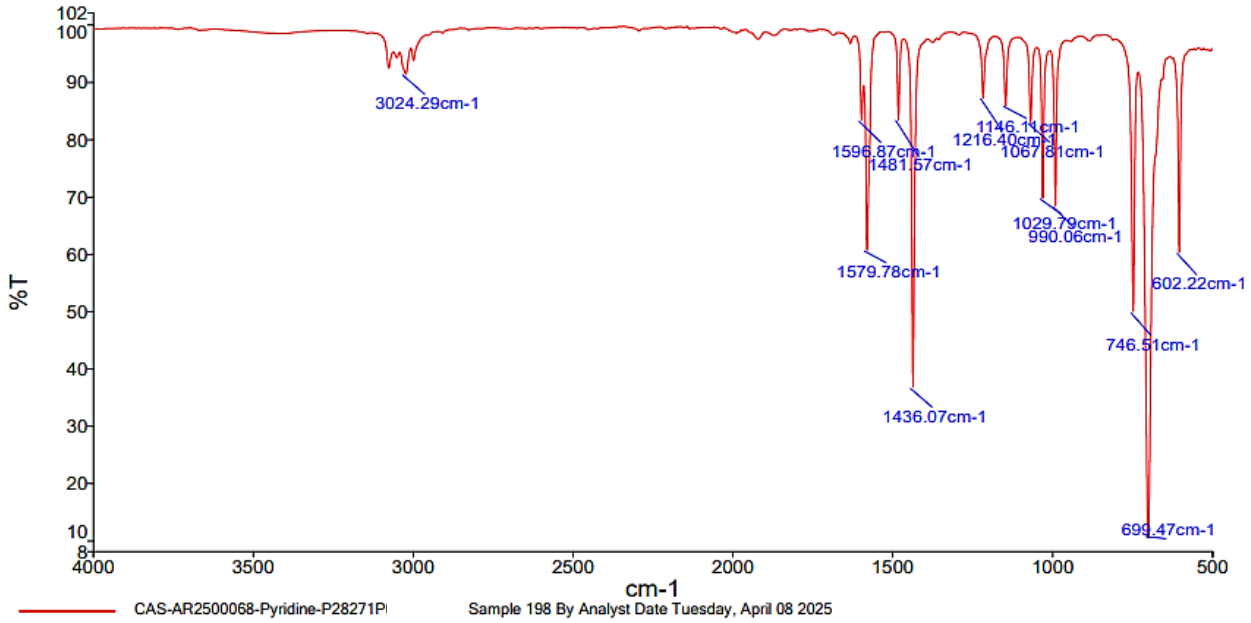
Product Name: Pyridine
Product Code: PSI027



Identification by GC-MS: Conforms to molecular mass

Infrared spectrum:

Product Name: Pyridine
Product Code: PSI027



Source Spectra Results	
Spectrum Name	Number Of Peaks
CAS-AR2500068-Pyridine-P28271P _1	17

List of Peak Area/Height		
Peak Number	X (cm-1)	Y (%T)
1	3077.50	92.59
2	3024.29	91.55
3	3000.13	93.90
4	1921.75	97.69
5	1632.51	96.90
6	1596.87	83.46
7	1579.78	60.82
8	1481.57	83.60
9	1436.07	36.85
10	1216.40	87.38
11	1146.11	86.00
12	1067.81	83.09
13	1029.79	69.90
14	990.06	68.54
15	746.51	50.09
16	699.47	10.41
17	602.22	60.39

Identification by IR: Conforms to structure

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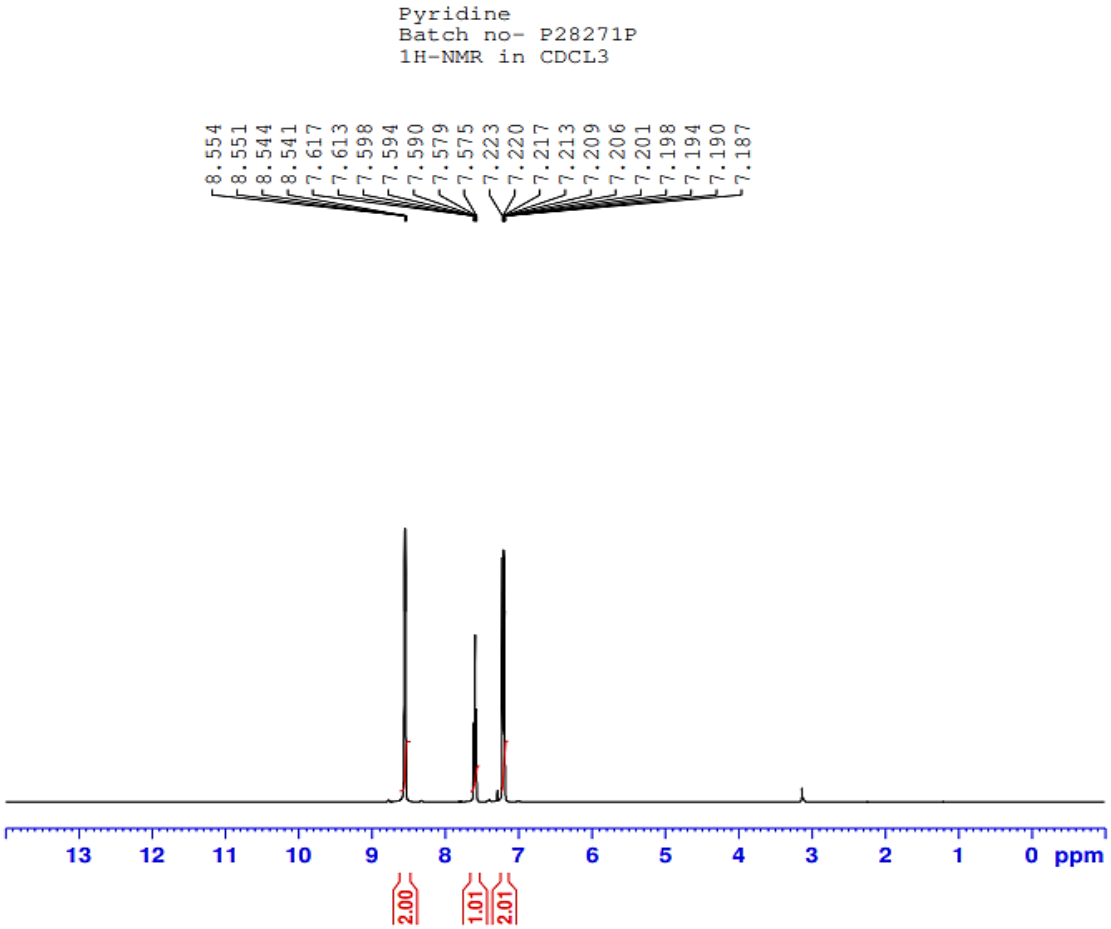
^{1}H NMR Spectrum:

Product Name: Pyridine
Product Code: PSI027



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

Maximum limits of impurities

WATER DETERMINATION

Method: Karl Fisher titration
Water Content (PSI027) = **0.0728 %**

Approved By
Head - Technical

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

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