

Certificate of Analysis

N,N-Dimethyl acetamide

PurTech Standard for GC

Product Number	PSI040	CAS No.	127-19-5
Brand	PureSynth	Lot No.	N040P1224
Molecular Formula	C ₄ H ₉ NO	Date of Mfg.	December,2024
Molecular Weight	87.12 g/mol	Date of Exp.	November,2027

Test	Specification	Result
Description	Colorless liquid	Colorless liquid
Assay (GC-FID)	≥ 99.0 %	99.98 %
Water (By KF)	NMT 0.20 %	0.16 %
Density	0.925-0.940 g/cm ³	0.937 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 Internal Reference Standard**

Storage Condition: Store at ambient temperature and keep container tightly closed in a dry and well-Ventilated place.

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

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Toll free no. 1800-8908-260, Email: info@pure-synth.com , Website: www.pure-synth.com

Assay by GC-FID

METHOD: GC- FID conditions:

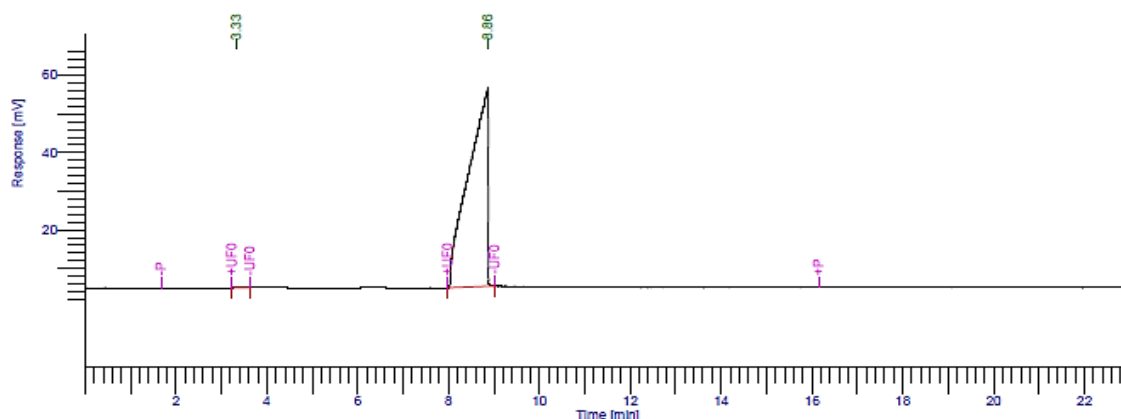
Column: Agilent Technologies DB-FFAP 30mx 0.530mm, 1.0micron

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	: 04-01-2025 12:29:46
Operator	: manager	Sample Name	: N_N-DIMETHYL ACETAMIDE-N040P1
Sample Number	: 001		224
AutoSampler	: BUILT-IN	Study	:
Instrument Name	: Clarus 690	Rack/Vial	: 0/15
Instrument Serial #	: None	Channel	: A
Delay Time	: 0.00 min	A/D mV Range	: 1000
Sampling Rate	: 12.5000 pts/s	End Time	: 23.00 min
Sample Volume	: 1.000000 ul		
Sample Amount	: 1.0000		
Data Acquisition Time	: 04-01-2025 10:51:52	Area Reject	: 0.000000
		Dilution Factor	: 1.00
		Cycle	: 1



GC Reports

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Area [%]
1		3.327	299.17	19.53	0.02
2		8.864	1517774.14	51515.11	99.98
			1518073.32	51534.64	100.00

Missing Component Report
Component Expected Retention (Calibration File)

All components were found

Purity by GC-FID: 99.99 %

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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: N,N-Dimethyl acetamide

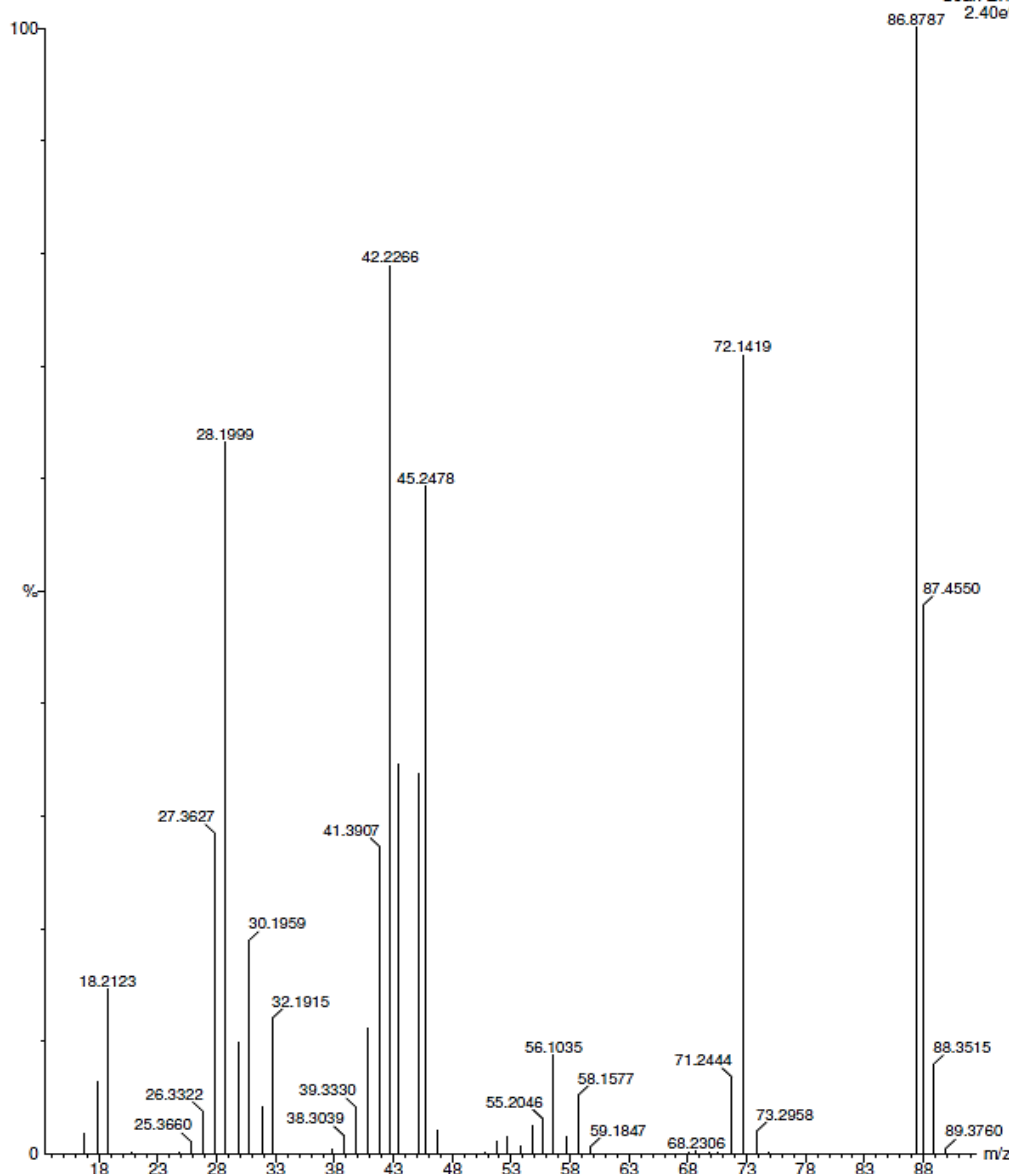
Product Code: PSI040

N,N-DIMETHYL ACETAMIDE-N040P1224

, 04-Jan-2025 + 11:36:15

Scan EI+

2.40e9



Identification by GC-MS: Conforms to molecular mass

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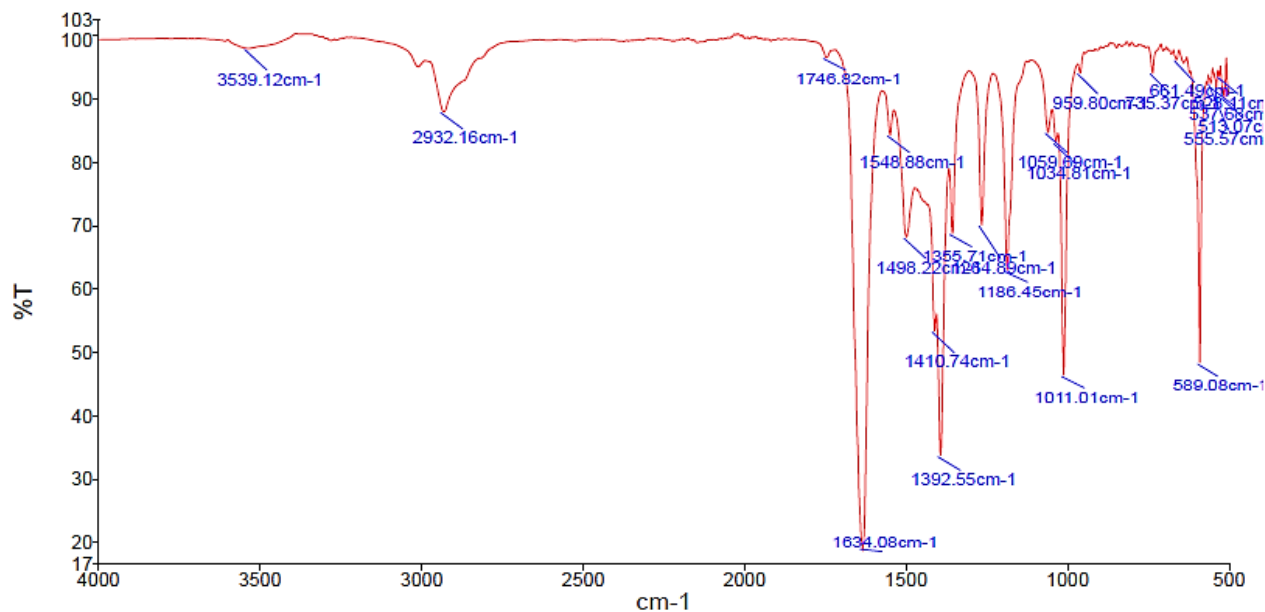
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Infrared spectrum:

Product Name: N,N-Dimethyl acetamide

Product Code: PSI040

Analyst
Date



AR24000879-N,N-Dimethyl acetamide-N040P1224-1

Sample 004 By Analyst Date Saturday, January 04 2025

Source Spectra Results		
Spectrum Name		Number Of Peaks
AR24000879-N,N-Dimethyl acetamide_1		22
List of Peak Area/Height		
Peak Number	X (cm-1)	Y (%T)
1	3539.12	98.09
2	2932.16	88.11
3	1746.82	96.63
4	1634.08	18.65
5	1548.88	84.44
6	1498.22	68.30
7	1410.74	53.47
8	1392.55	33.79
9	1355.71	68.83
10	1264.89	70.23
11	1186.45	62.99
12	1059.69	84.82
13	1034.81	83.22
14	1011.01	46.45
15	959.80	94.20
16	735.37	94.19
17	661.49	96.30
18	589.08	48.43
19	555.57	92.59
20	537.68	91.60
21	528.11	93.68
22	513.07	90.28

Identification by IR: Conforms to structure

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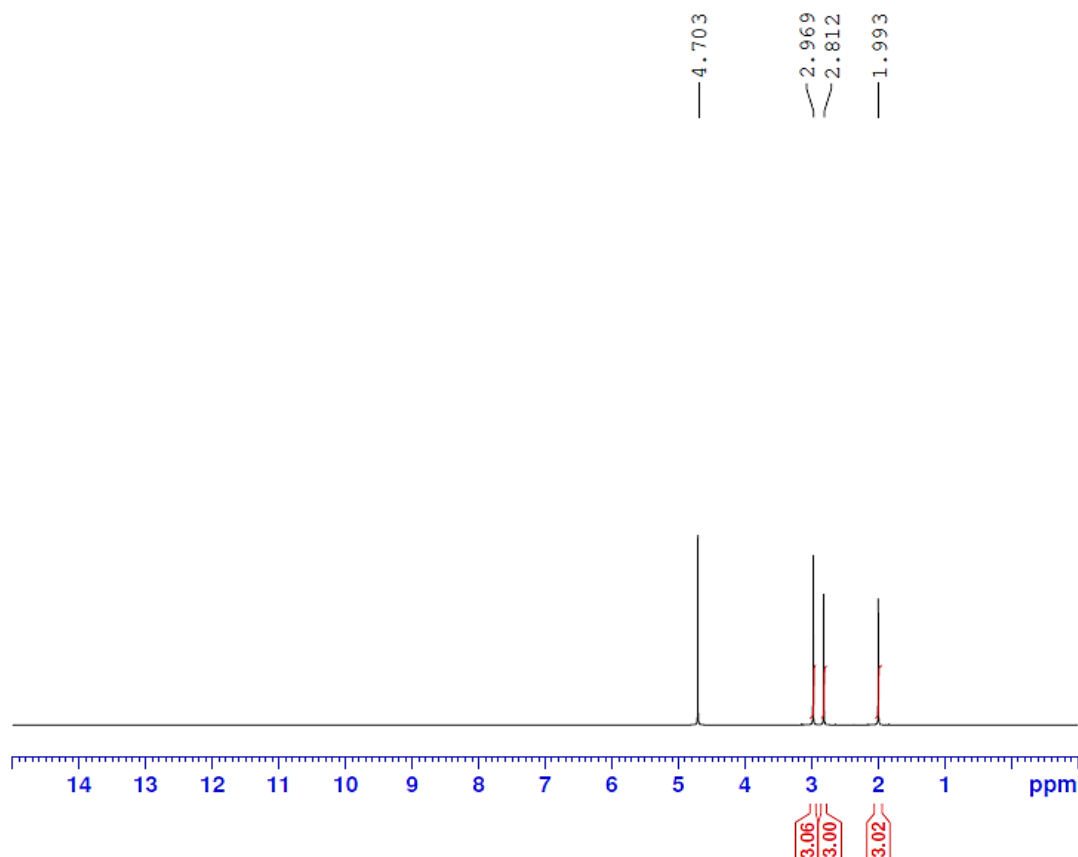
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¹H NMR Spectrum:

Product Name: N,N-Dimethyl acetamide

Product Code: PSI040

N,N-Dimethyl acetamide
B.no :N040P1224
1H-NMR in D2O



Identification by ¹H NMR: Conforms to structure

Maximum limits of impurities

WATER DETERMINATION

Method: Karl Fisher titration

Water Content (PSI040) = **0.16 %**

Approved By
Head - Technical

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