PureSynth™
Research Chemicals

Certificate of Analysis

Methanol

PurTech Standard for GC

(Secondary Reference Standard)

Product Number	PSI024	**CAS No.**	67-56-1
Brand	PureSynth	**Lot No.**	M28268P
Molecular Formula	CH_4O	**Date of Mfg.**	March,2025
Molecular Weight	32.04 g/mol	**Date of Exp.**	February,2030

Test	Specification	Result
Description	Colorless Liquid	Colorless Liquid
Assay (GC-FID)	≥ 99.5 %	99.99 %
Water (By KF)	NMT 0.3000 %	0.1000 %
Density	0.790-0.794 g/cm^3	0.791 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, Current lot: R07490**

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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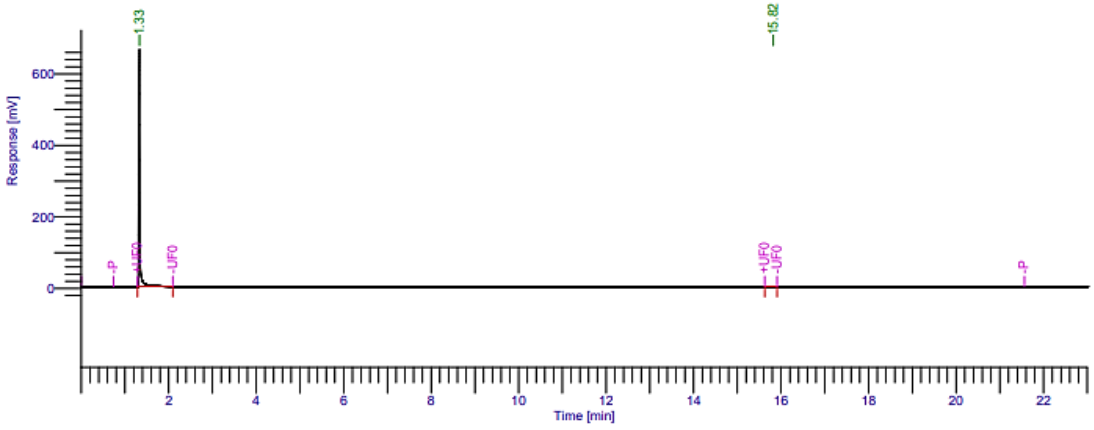
Assay by GC-FID

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 15:18:16
Operator	: manager	Sample Name	: METHANOL
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	: 23.00 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	: 08-04-2025 14:47:46	Cycle	: 1



GC Reports

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Area [%]
1		1.331	1354245.12	663765.34	99.99
2		15.821	77.65	9.70	0.01
			1354322.77	663775.04	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

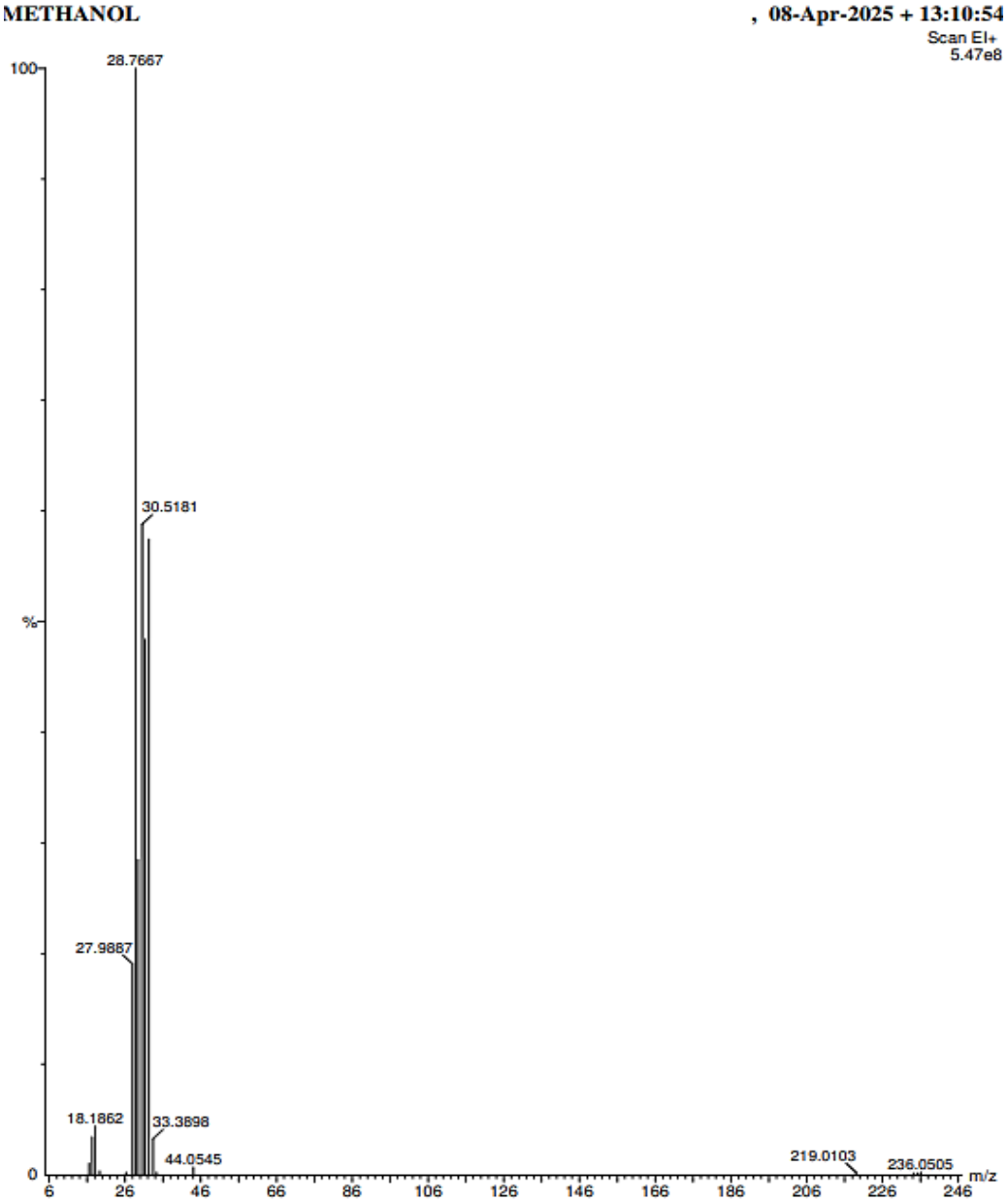
GC-MS Spectrum:

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: Methanol
Product Code: PSI024



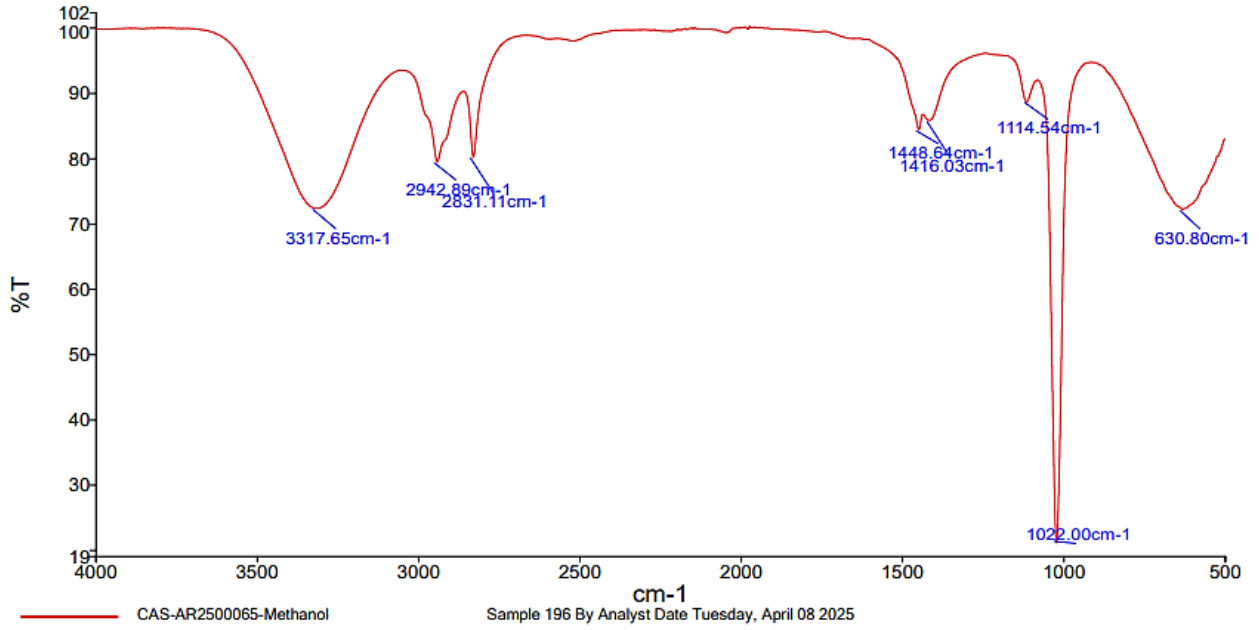
Identification by GC-MS: Conforms to molecular mass

Infrared spectrum:

Product Name: Methanol

Product Code: PSI024

Analyst
Date



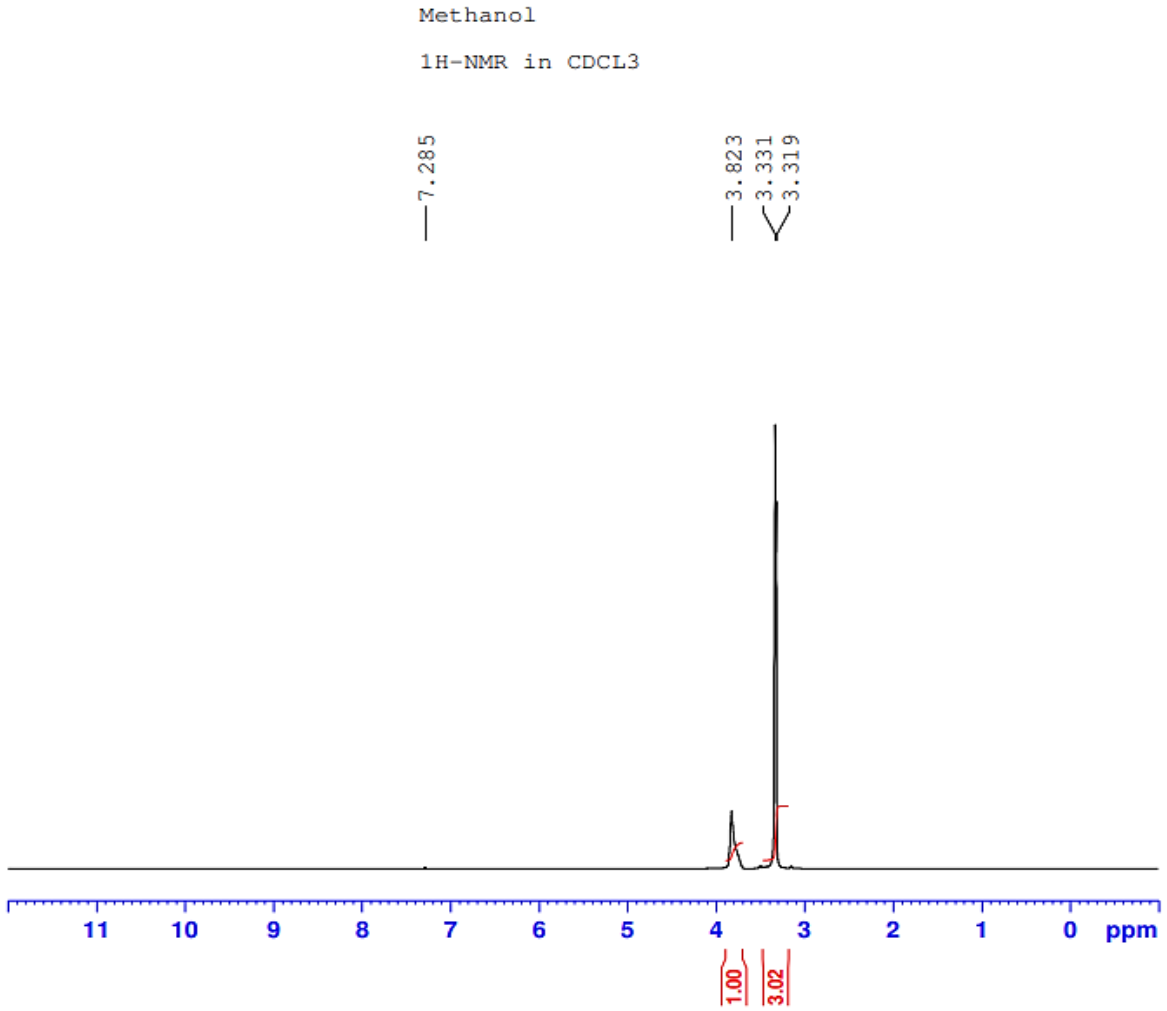
Source Spectra Results	
Spectrum Name	Number Of Peaks
CAS-AR2500065-Methanol	8

List of Peak Area/Height		
Peak Number	X (cm-1)	Y (%T)
1	3317.65	72.43
2	2942.89	79.58
3	2831.11	80.31
4	1448.64	84.51
5	1416.03	85.92
6	1114.54	88.80
7	1022.00	21.10
8	630.80	72.26

Identification by IR: Conforms to structure

[1]H NMR Spectrum:

Product Name: Methanol
Product Code: PSI024



Identification by [1]H NMR: Conforms to structure

Maximum limits of impurities

WATER DETERMINATION

Method: Karl Fisher titration
Water Content (PSI024) = **0.1000 %**

Approved By
Head - Technical

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

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