

Certificate of Analysis

Tert-Butanol

PurCert Standard for GC

(Secondary reference standard)

Product Number	PSR28324	CAS No.	75-65-0
Brand	PureSynth	Lot No.	P28324P0324
Molecular Formula	C ₄ H ₁₀ O	Date of Mfg.	March,2024
Molecular Weight	74.12 g/mol	Date of Exp.	February,2027

Test	Specification	Result
Description	White or Colorless to Almost white or almost colorless liquid	Colorless liquid
Assay (GC-FID)	≥99.5 %	99.99 %
Water (By KF)	NMT 0.200 %	0.145 %
Density	1.015-1.017 g/cm ³	1.017 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 1601758, Lot no: F183U0**

Storage Condition: Store at room temperature and keep the container tightly closed.

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

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

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

Assay by GC-FID

METHOD: GC- FID conditions:

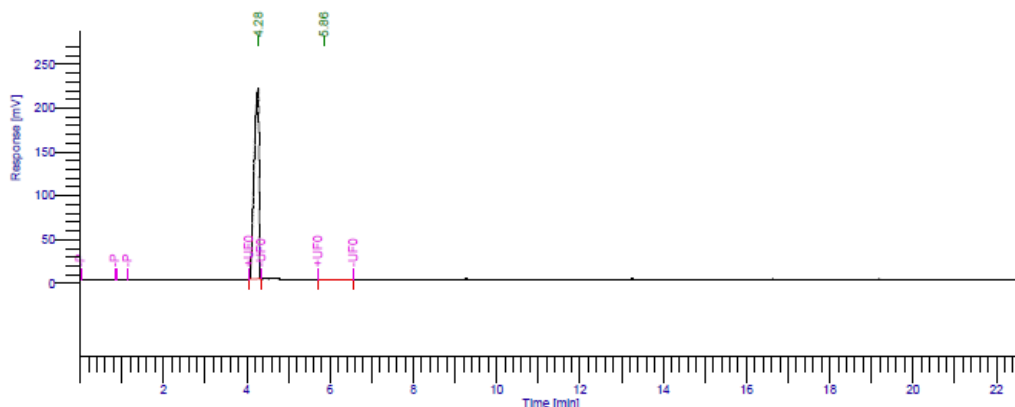
Column: Agilent Technologies DB-FFAP 30mx 0.530mm, 1.0micron

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	: 13-06-2024 12:40:32
Operator	: manager	Sample Name	: TERT-BUTYL ALCOHOL-P28324P032
Sample Number	: 001		: 4
AutoSampler	: BUILT-IN	Study	:
Instrument Name	: Clarus 690	Rack/Vial	: 0/1
Instrument Serial #	: None	Channel	: A
Delay Time	: 0.00 min	A/D mV Range	: 1000
Sampling Rate	: 12.5000 pts/s	End Time	: 22.60 min
Sample Volume	: 1.000000 ul		
Sample Amount	: 1.0000		
Data Acquisition Time	: 13-06-2024 10:49:58	Area Reject	: 0.000000
		Dilution Factor	: 1.00
		Cycle	: 1



GC Reports

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Area [%]
1		4.276	1735765.11	217322.23	99.99
2		5.857	236.82	10.14	0.01
		1736001.93	217332.37	100.00	

Missing Component Report

Component Expected Retention (Calibration File)

All components were found

Purity by GC-FID: 99.99 %

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

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

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:

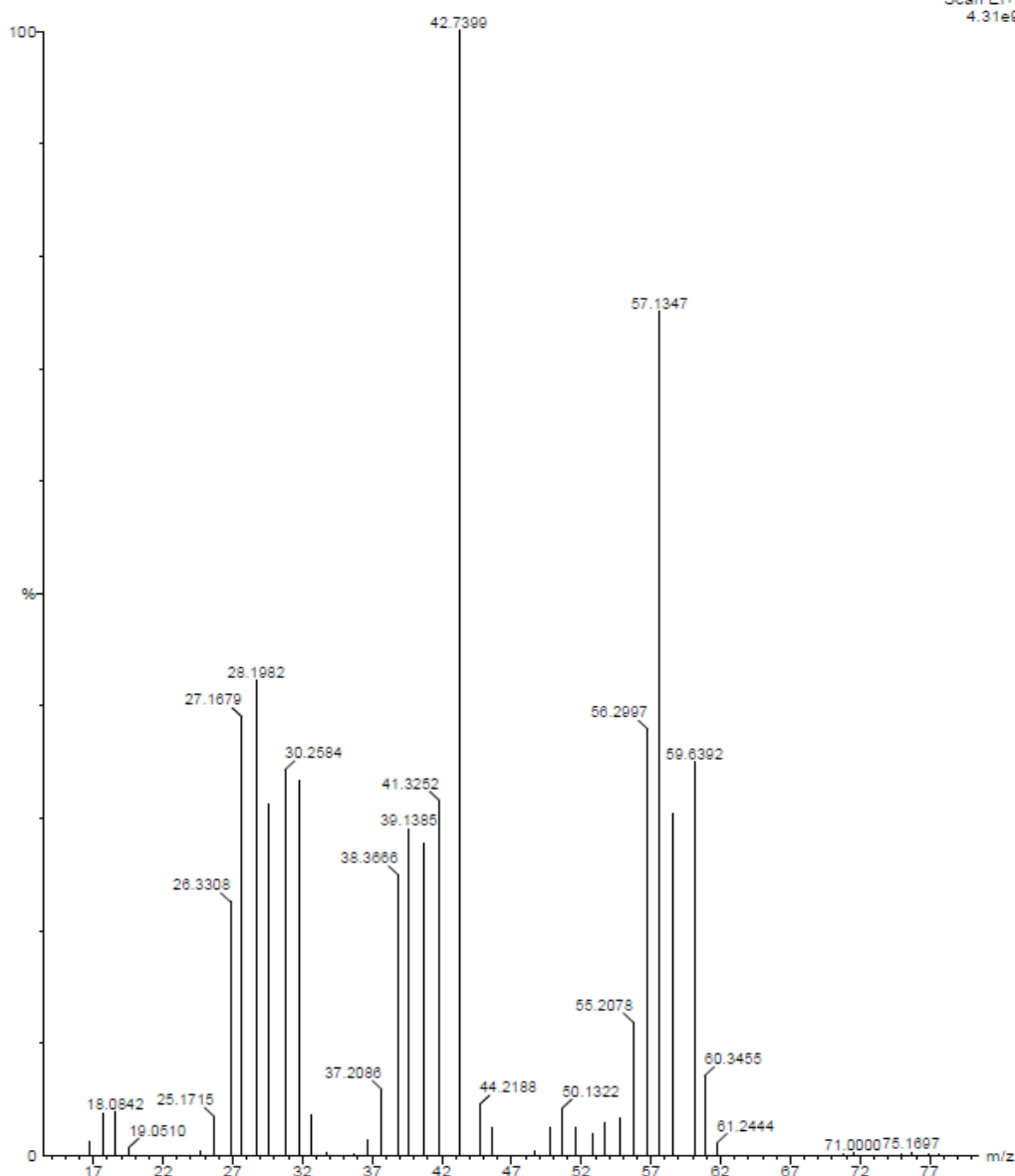
Product Name: Tert-Butanol

Product Code: PSR28324

TERT BUTYL ALCOHOL-P28324P0324

, 13-Jun-2024 + 10:21:13

Scan El+
4.31e9



Identification by GC-MS: Conforms to molecular mass

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

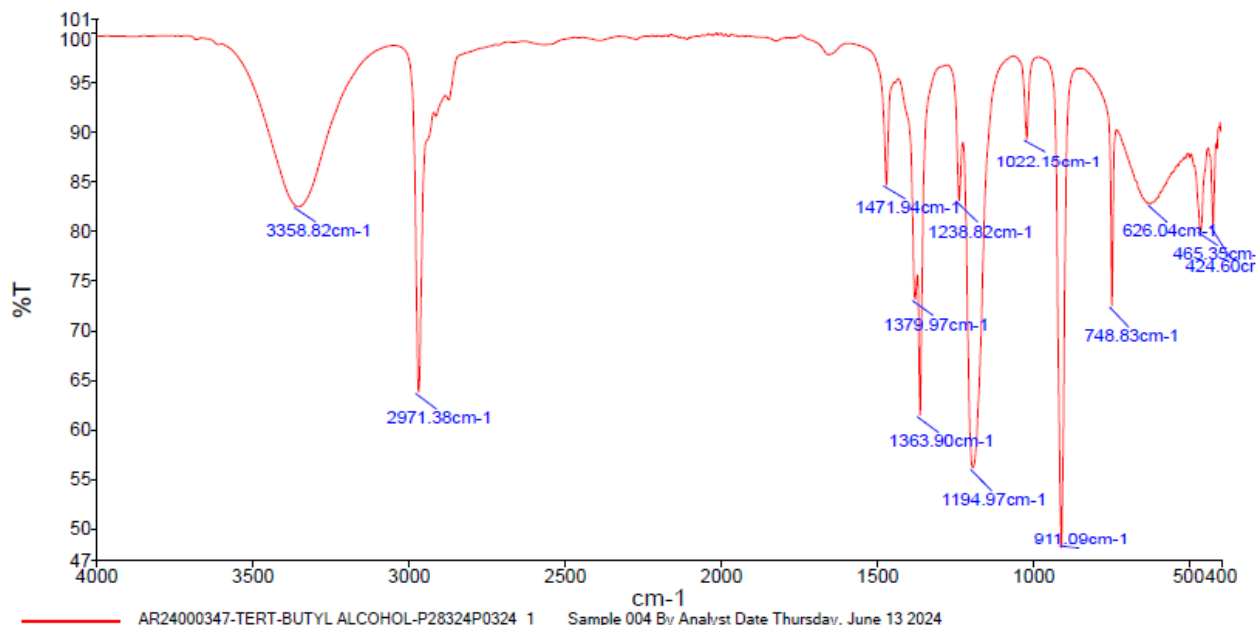
Toll free no. 1800-8908-260, Email: info@pure-synth.com, Website: www.pure-synth.com

Infrared spectrum:

Product Name: Tert-Butanol

Product Code: PSR28324

Analyst
Date



Source Spectra Results		
Spectrum Name		Number Of Peaks
AR24000347-TERT-BUTYL ALCOHOL-P28324P0324_1		13
List of Peak Area/Height		
Peak Number	X (cm-1)	Y (%T)
1	3358.82	82.56
2	2971.38	63.82
3	1471.94	84.76
4	1379.97	73.20
5	1363.90	61.47
6	1238.82	83.19
7	1194.97	56.16
8	1022.15	89.37
9	911.09	48.09
10	748.83	72.54
11	626.04	82.84
12	465.35	80.06
13	424.60	80.63

Identification by IR: Conforms to structure

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

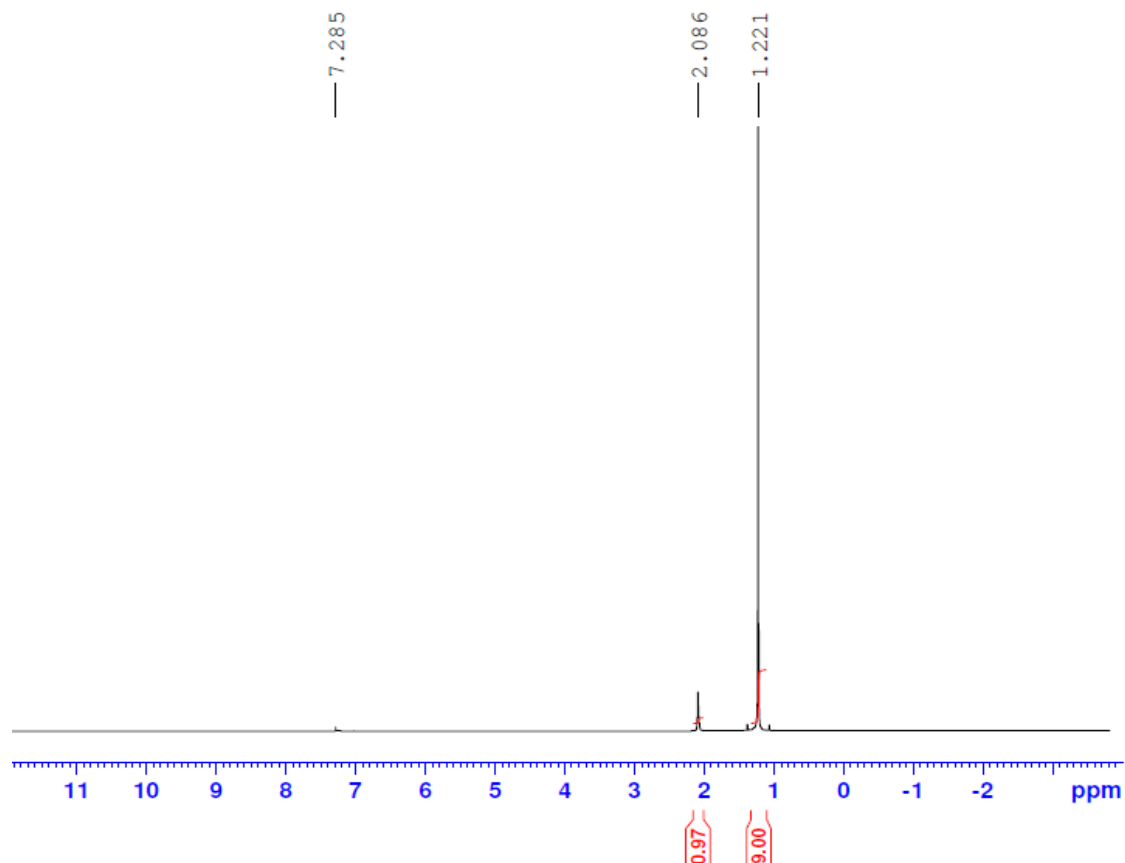
Toll free no. 1800-8908-260, Email: info@pure-synth.com , Website: www.pure-synth.com

¹H NMR Spectrum:

Product Name: Tert-Butanol

Product Code: PSR28324

Tert-Butanol
B.no-P28324P0324
1H-NMR in CDCL₃



Identification by ¹H NMR: Conforms to structure

Maximum limits of impurities

WATER DETERMINATION

Method: Karl Fisher titration

Water Content (PSR28324) = **0.145 %**

Approved By
Head - Technical

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

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