PureSynth
Research Chemicals

Certificate of Analysis

Isopropyl alcohol (2-propanol)

PurTech Standard for GC

(Secondary reference standard)

Product Number	PSI050	**CAS No.**	67-63-0
Brand	PureSynth	**Lot No.**	I050P0324
Molecular Formula	C_3H_8O	**Date of Mfg.**	March,2024
Molecular Weight	60.11 g/mol	**Date of Exp.**	February,2027

Test	Specification	Result
Description	Colorless liquid	Colorless liquid
Assay (GC-FID)	≥ 99.0 %	99.99 %
Water (By KF)	NMT 0.05 %	0.018 %
Density		0.78 g/cm3
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 1570428, Lot No: R048P0**

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

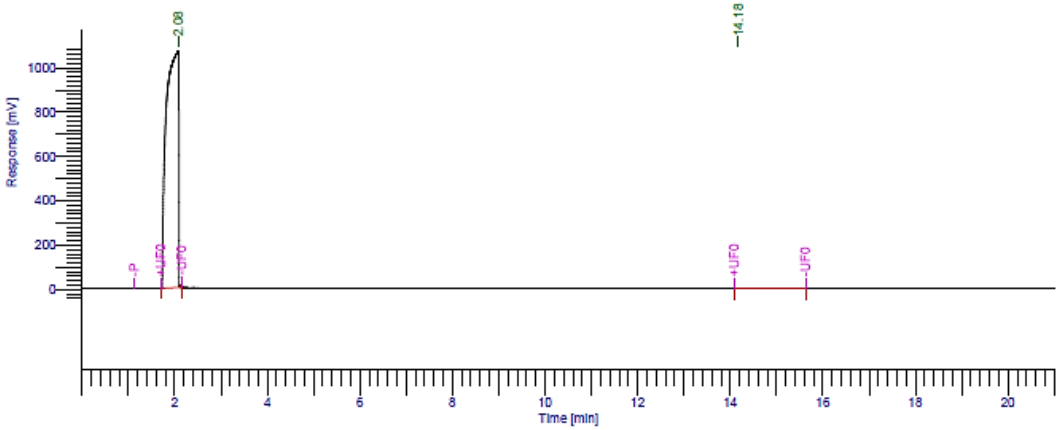
Remark: The batch complies with the prescribed quality of the above specification.

PureSynth
Research Chemicals

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	: 07-05-2024 17:20:47
Operator	: manager	Sample Name	: ISOPROPYL ALCOHOL-I050P0324
Sample Number	: 001	Study	:
AutoSampler	: BUILT-IN	Rack/Vial	: 0/43
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		
Sample Amount	: 1.0000	Area Reject	: 0.000000
Data Acquisition Time	: 07-05-2024 11:37:39	Dilution Factor	: 1.00
		Cycle	: 1



GC Reports

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Area [%]
1		2.084	19294876.19	1.07e+06	99.99
2		14.176	2025.14	42.26	0.01
			19296901.32	1.07e+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: 99.99 %

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

Worldwide Helpline No. 1800-120-1234-34 , Email: info@pure-synth.com , Website: www.pure-synth.com

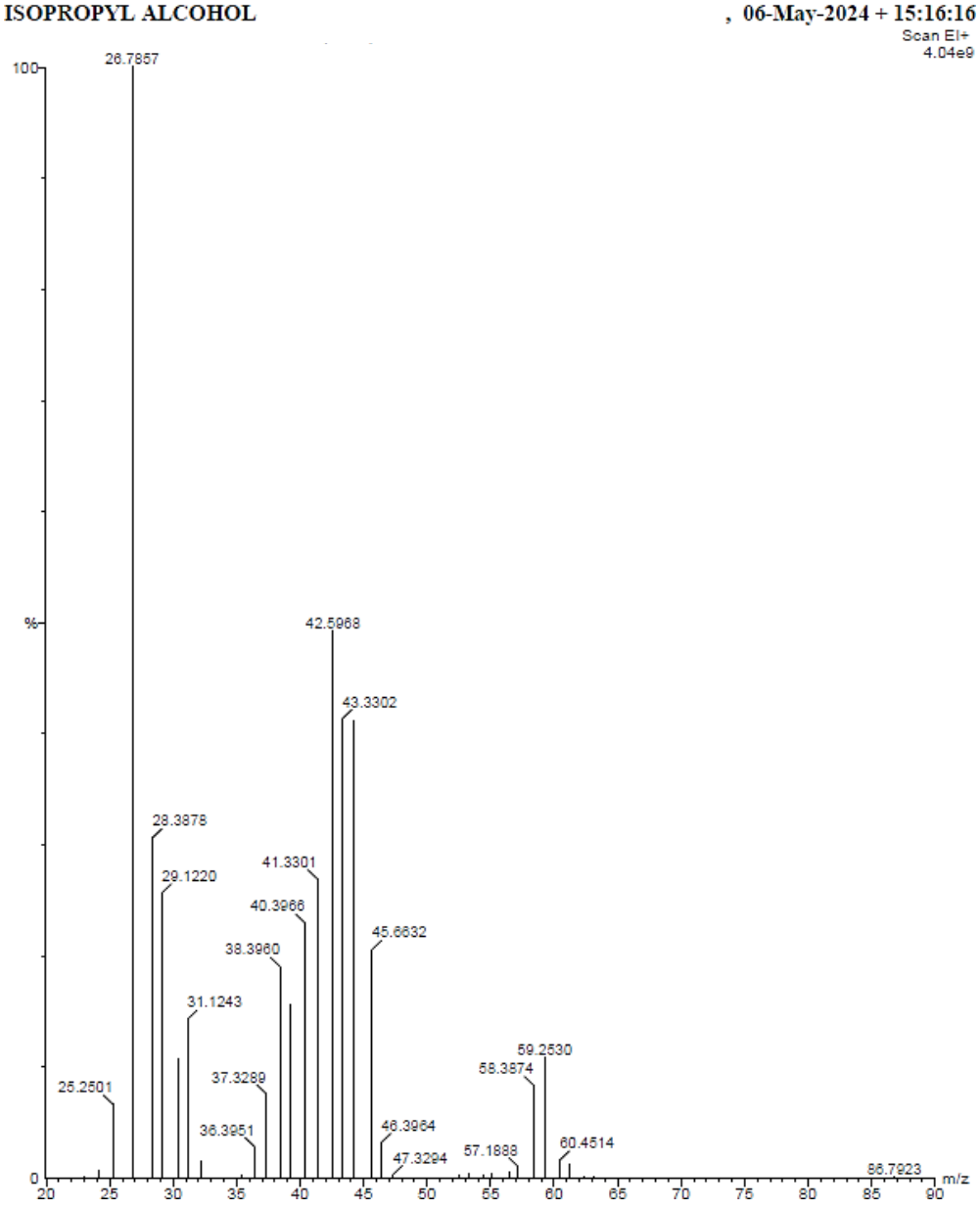
IDENTIFICATION TESTS

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: Isopropyl alcohol
Product Code: PSI050

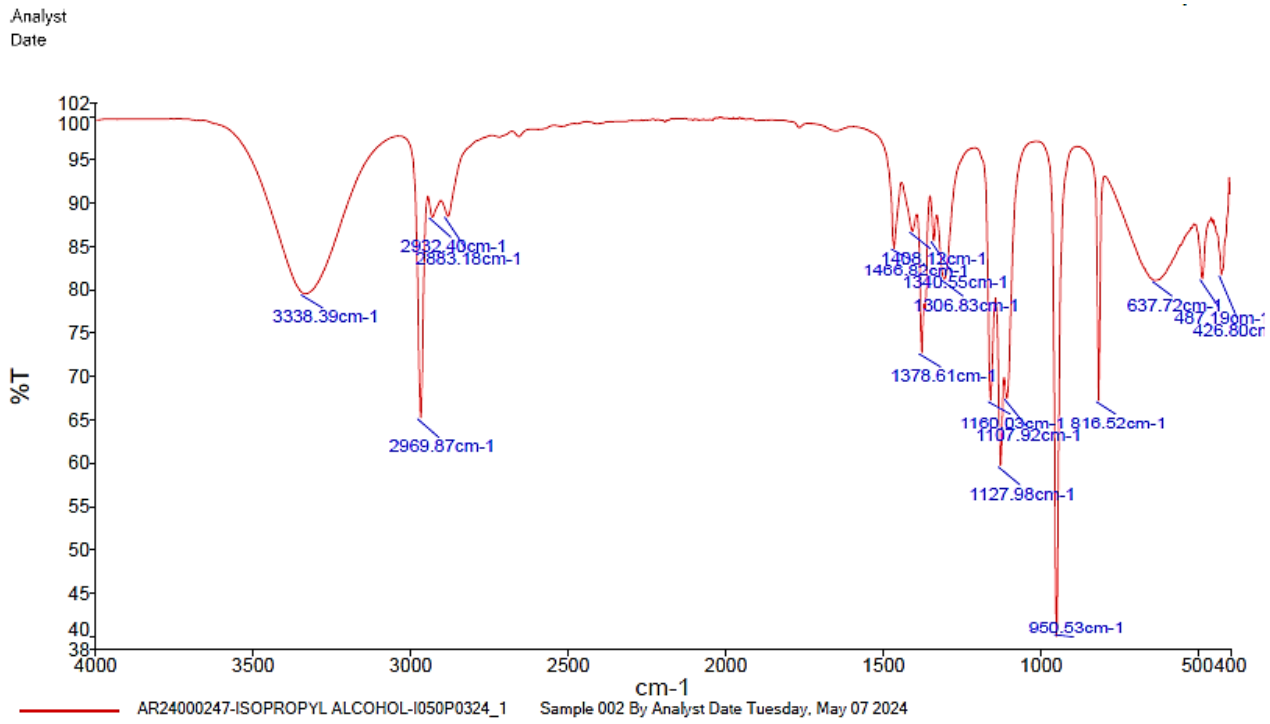


Identification by GC-MS: Conforms to molecular mass

PureSynth
Research Chemicals

Infrared spectrum:

Product Name: Isopropyl alcohol
Product Code: PSI050



Source Spectra Results	
Spectrum Name	Number Of Peaks
AR24000247-ISOPROPYL ALCOHOL-I050P0324_1	17

List of Peak Area/Height		
Peak Number	X (cm-1)	Y (%T)
1	3338.39	79.56
2	2969.87	65.27
3	2932.40	88.44
4	2883.18	88.52
5	1466.82	84.84
6	1408.12	86.81
7	1378.61	72.74
8	1340.55	85.72
9	1306.83	81.27
10	1160.03	67.25
11	1127.98	59.73
12	1107.92	67.49
13	950.53	39.96
14	816.52	67.23
15	637.72	81.09
16	487.19	81.32
17	426.80	81.77

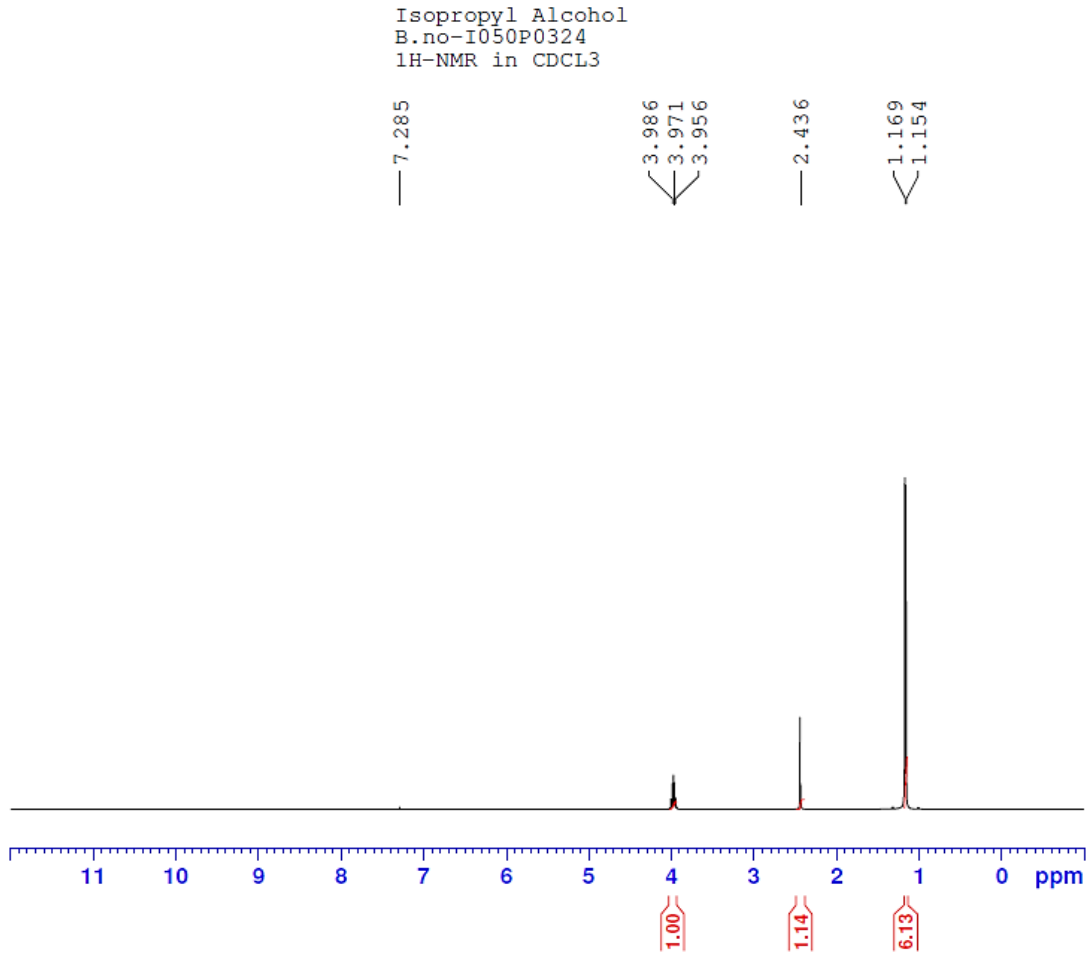
Identification by IR: Conforms to structure

PureSynth
Research Chemicals

^{1}H NMR Spectrum:

Product Name: Isopropyl alcohol

Product Code: PSI050



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

Maximum limits of impurities

WATER DETERMINATION

Method: Karl Fisher titration

Water Content (PSI050) = **0.018 %**

Approved By

Head - Technical