

Certificate of Analysis

Ethyl acetate

PurTech Standard for GC

Product Number	PSI051	CAS No.	141-78-6
Brand	PureSynth	Lot No.	TKRY01P
Molecular Formula	C ₄ H ₈ O ₂	Date of Mfg.	January.2023
Molecular Weight	88.11 g/mol	Date of Exp.	December.2027

Test	Specification	Result
Description	Colorless liquid	Colorless liquid
Clarity	Clear	Clear
Assay (GC-FID)	>99.0 %	99.06 %
Water (By KF)	NMT 0.5 %	0.4441 %
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 1265402 Lot no. R09350**

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

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

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Assay by GC-FID

METHOD: G.C- FID conditions:

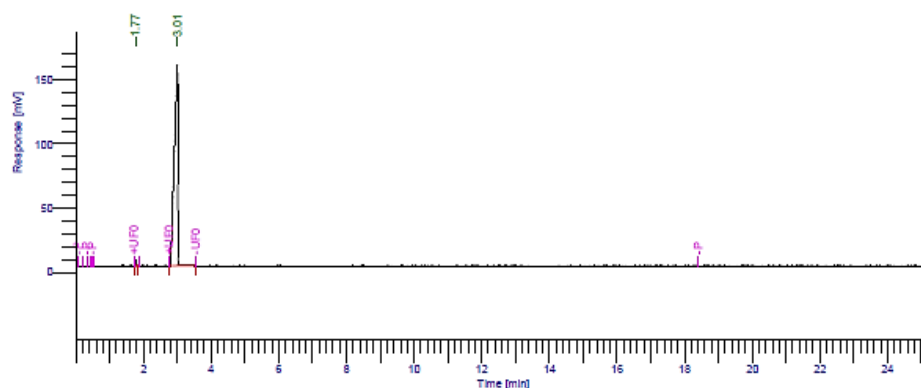
Column: Agilent Technologies DB-FFAP 30mx 0.530mm, 1.0micron

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	: 15/04/2023 4.11.23 PM
Operator	: manager	Sample Name	: AR23000197-ETHYLACETATE-TKRY
Sample Number	: 1		: 01P
AutoSampler	: BUILT-IN	Study	: GC Purity
Instrument Name	: Clarus 680	Rack/Vial	: 0/40
Instrument Serial #	: None	Channel	: A
Delay Time	: 0.00 min	A/D mV Range	: 1000
Sampling Rate	: 12.5000 pts/s	End Time	: 25.27 min
Sample Volume	: 1.000000 ul		
Sample Amount	: 1.0000	Area Reject	: 0.000000
Data Acquisition Time	: 15/04/2023 3.12.52 PM	Dilution Factor	: 1.00
		Cycle	: 1



15/04/2023 4.11.23 PM Result:

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Area [%]
1		1.765	10149.63	4727.87	0.94
2		3.005	1073127.00	156053.44	99.06
			1083276.63	160781.31	100.00

Missing Component Report

Component Expected Retention (Calibration File)

All components were found

Purity by GC-FID: 99.06 %

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IDENTIFICATION TESTS

GC-MS Spectrum:

METHOD: G.C-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

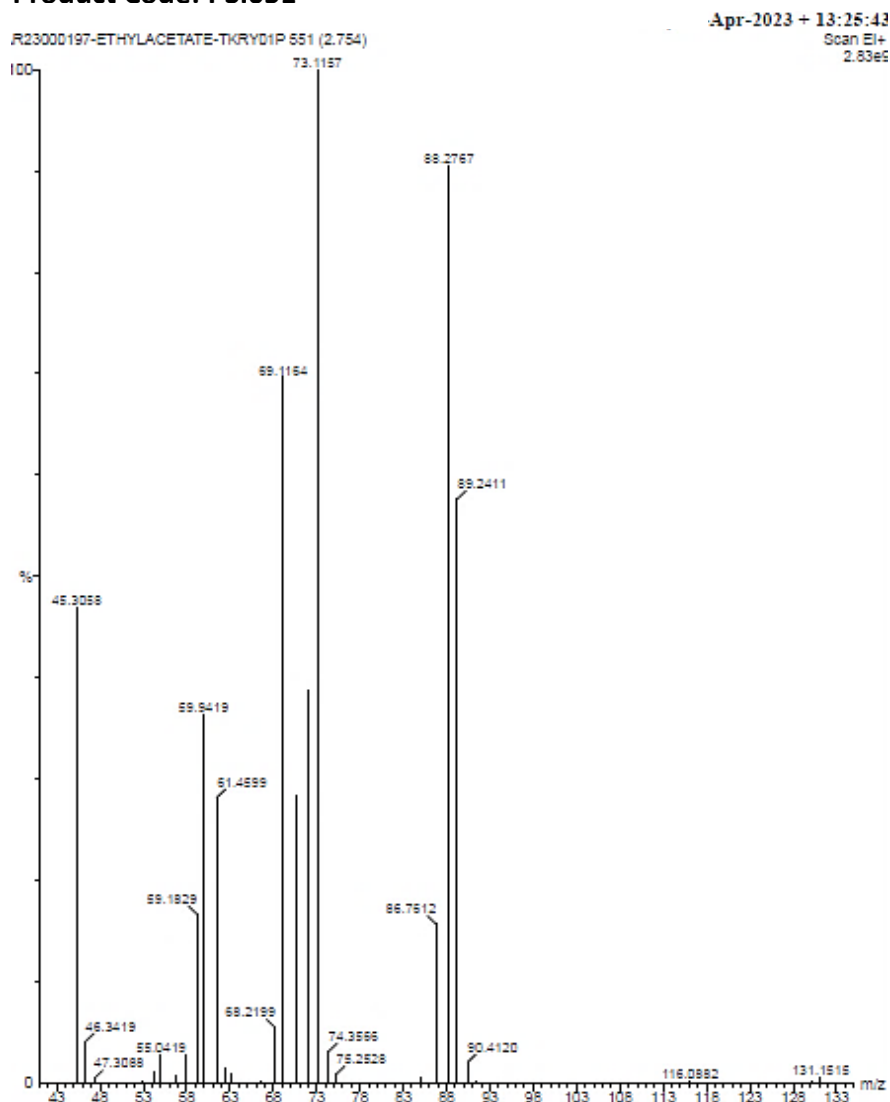
Inlet Temp.: 180°C, **Diluent:** Methanol

Source energy: 70eV

Mass by GC-MS:

Product Name: Ethyl acetate

Product Code: PSI051



Identification by GC-MS: Conforms to molecular mass

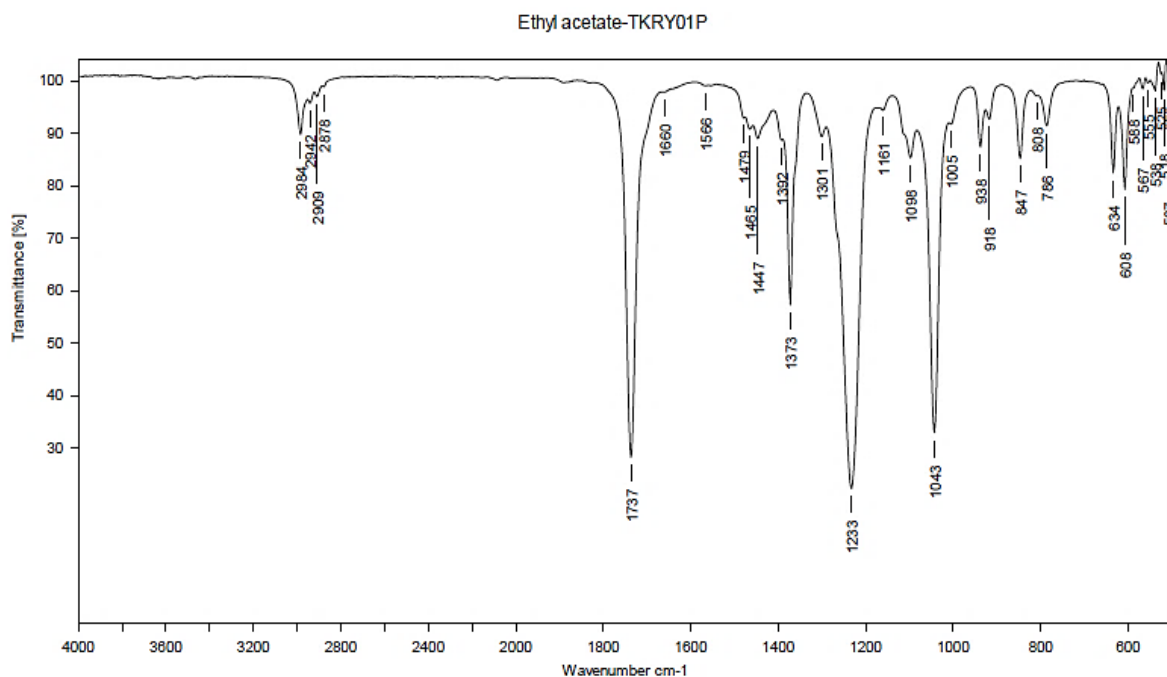
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Infrared spectrum:

Product Name: Ethyl acetate

Product Code: PSI051



Experiment ATR_ZnSe1.XPM

Operator Name Admin

Instrument Type Alpha II

Resolution 4

Path of File C:\PRL

Date of Measurement 17-04-2023

Sample Form Liquid

Sample Scans 32

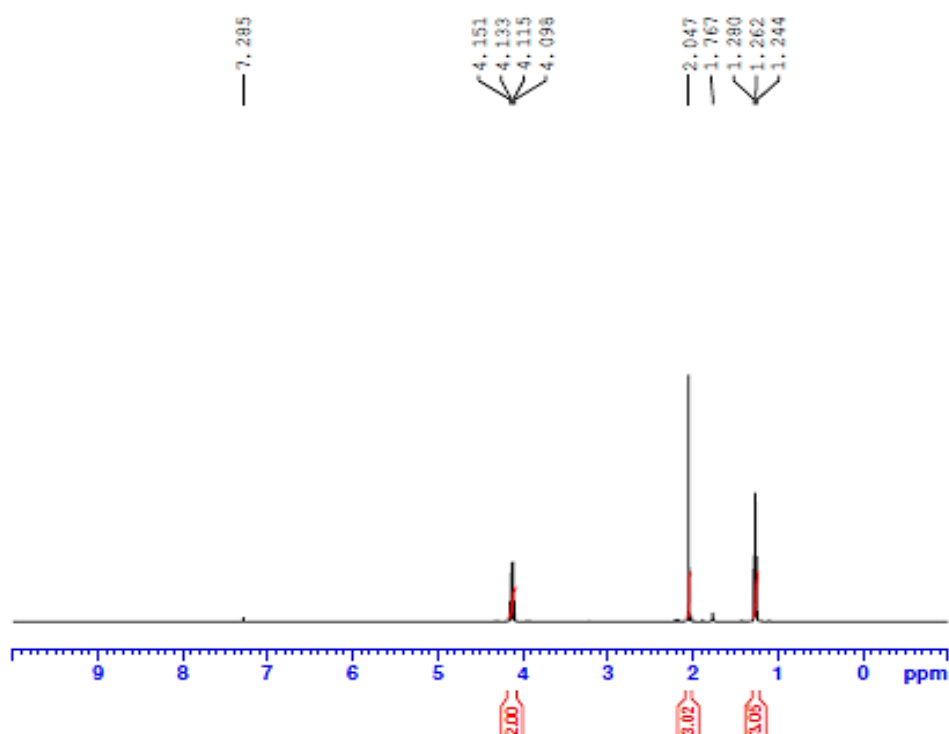
Identification by IR: Conforms to structure

¹H NMR Spectrum:

Product Name: Ethyl acetate

Product Code: PSI051

Ethyl acetate
Batch Number: TKRY01P
1H-NMR in CDCl₃



Identification by ¹H NMR: Conforms to structure

Maximum limits of impurities

WATER DETERMINATION

Method: Karl Fisher titration

Water Content (PSI051) = **0.4441 %**

Approved By
Head - Technical

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