

Certificate of Analysis

Oleic acid

PurCert Standard for GC

(Secondary Reference Standard)

Product Number	PSR39186	CAS No.	112-80-1
Brand	PureSynth	Lot No.	O39186P0324
Molecular Formula	C ₁₈ H ₃₄ O ₂	Date of Mfg.	March.2024
Molecular Weight	282.47 g/mol	Date of Exp.	February.2027

Test	Specification	Result
Description	Colorless liquid	Colorless liquid
Assay (GC-FID)	≥ 99.5 %	99.70 %
Water (By KF)	NMT 0.300 %	0.241 %
Density	-	0.89 g/ml
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 1478130, Lot no: R161U0**

Storage Condition: Store at a temperature of -20°C 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: GC- FID conditions:

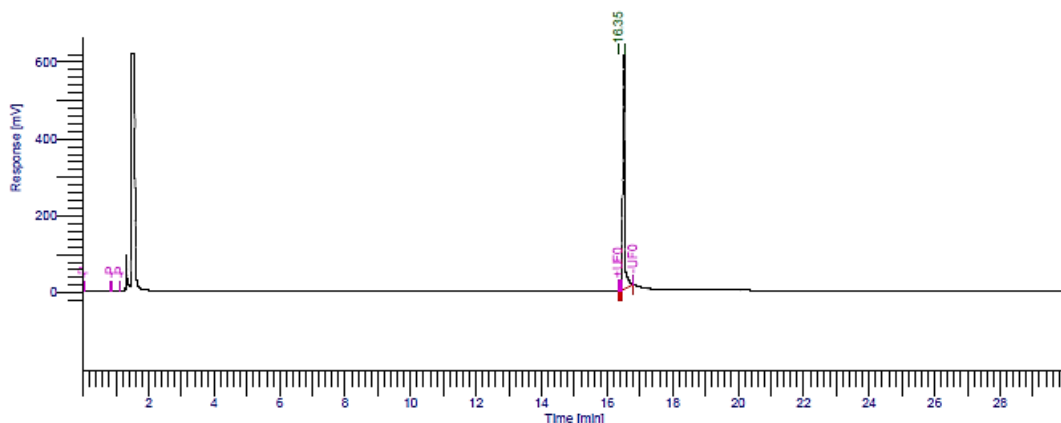
Column: Agilent Technologies DB-FFAP 30mx 0.530mm, 1.0micron

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	: 23-05-2024 12:35:27
Operator	: manager	Sample Name	: OLEIC ACID-O39186P0324
Sample Number	: 001	Study	:
AutoSampler	: BUILT-IN	Rack/Vial	: 0/34
Instrument Name	: Clarus 690	Channel	: A
Instrument Serial #	: None	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 30.00 min
Sampling Rate	: 12.5000 pts/s	Area Reject	: 0.000000
Sample Volume	: 1.000000 ul	Dilution Factor	: 1.00
Sample Amount	: 1.0000	Cycle	: 1
Data Acquisition Time	: 23-05-2024 10:56:32		



GC Reports

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Area [%]
1		16.351	6645.15	3357.61	0.30
2		16.525	2213181.37	610007.20	99.70
			2219826.52	613364.81	100.00

Missing Component Report
Component Expected Retention (Calibration File)

All components were found

Purity by GC-FID: 99.70 %

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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:

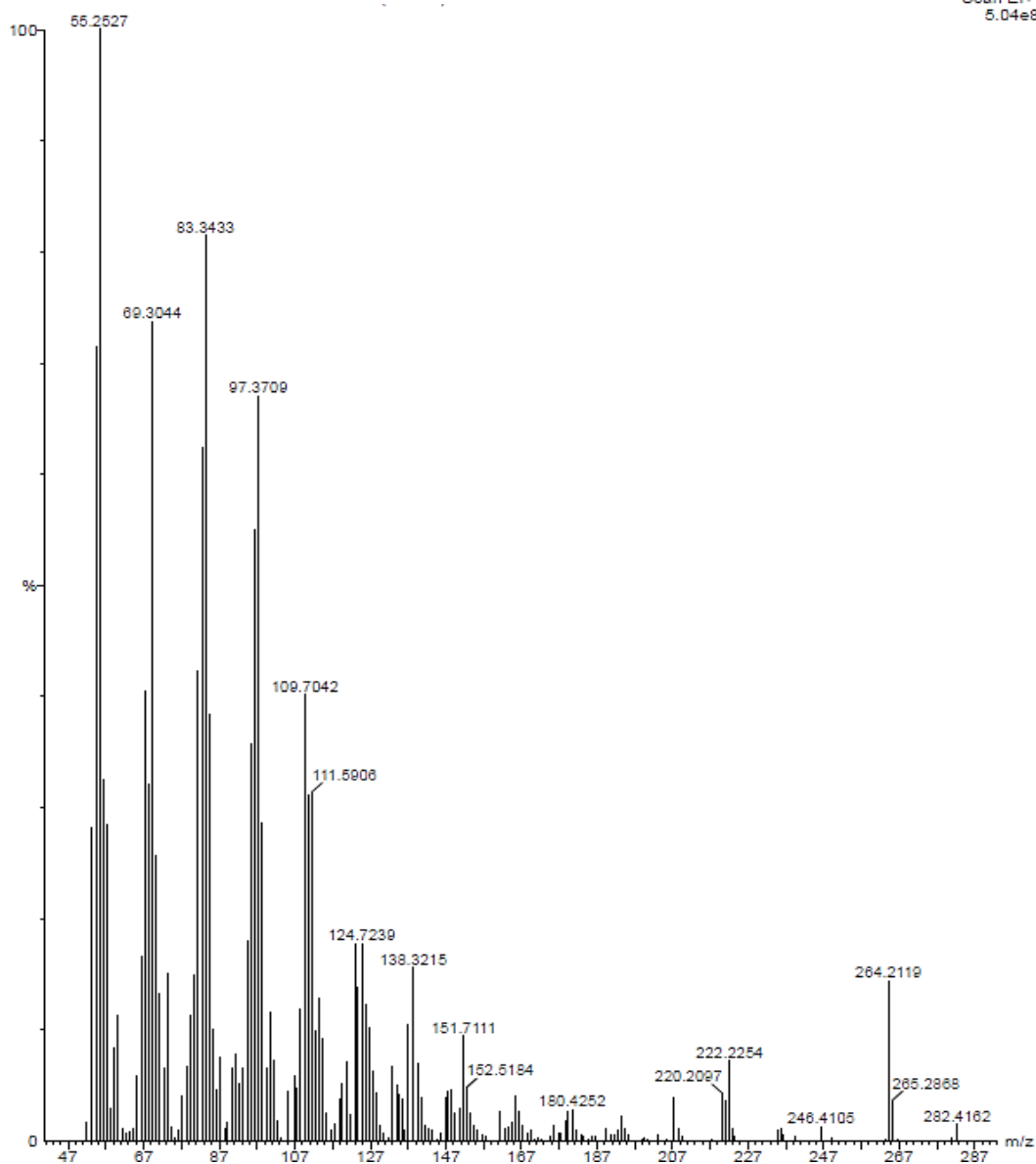
Product Name: Oleic acid

Product Code: PSR39186

OLEIC ACID-O39186P0324

, 23-May-2024 + 11:54:26

Scan EI+
5.04e8



Identification by GC-MS: Conforms to molecular mass

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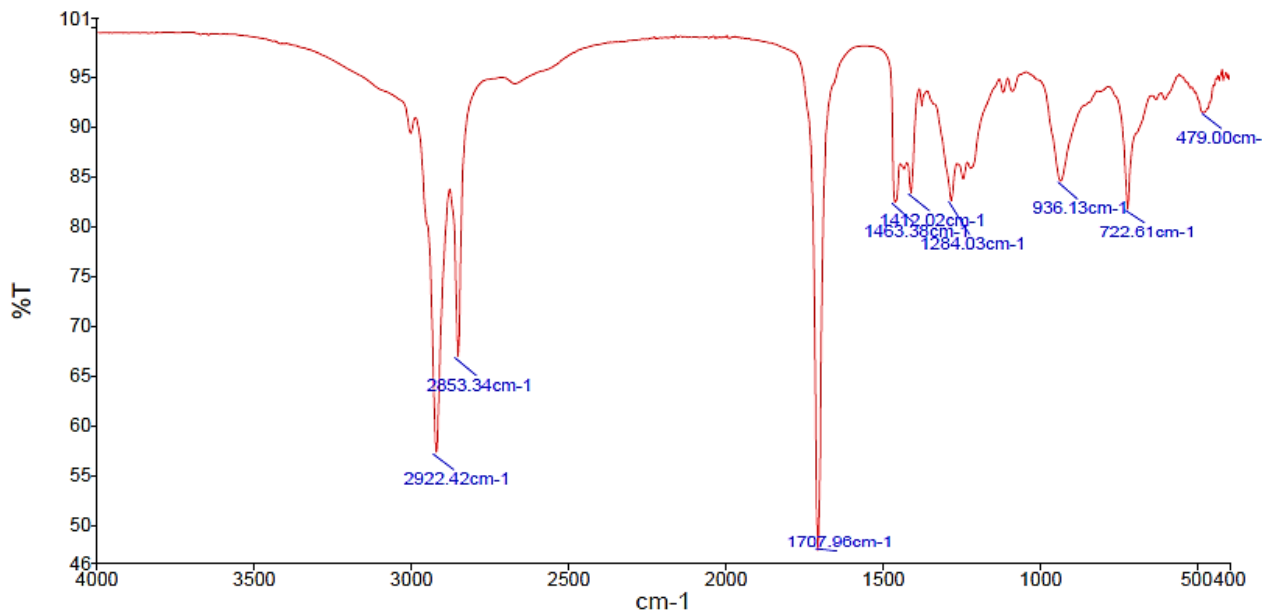
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Infrared spectrum:

Product Name: Oleic acid

Product Code: PSR39186

Analyst
Date



Source Spectra Results		
Spectrum Name	Number Of Peaks	
AR24000305-OLEIC ACID-O39186P0324_1	9	
List of Peak Area/Height		
Peak Number	X (cm-1)	Y (%T)
1	2922.42	57.33
2	2853.34	66.99
3	1707.96	47.47
4	1463.38	82.46
5	1412.02	83.43
6	1284.03	82.65
7	936.13	84.60
8	722.61	81.78
9	479.00	91.48

Identification by IR: Conforms to structure

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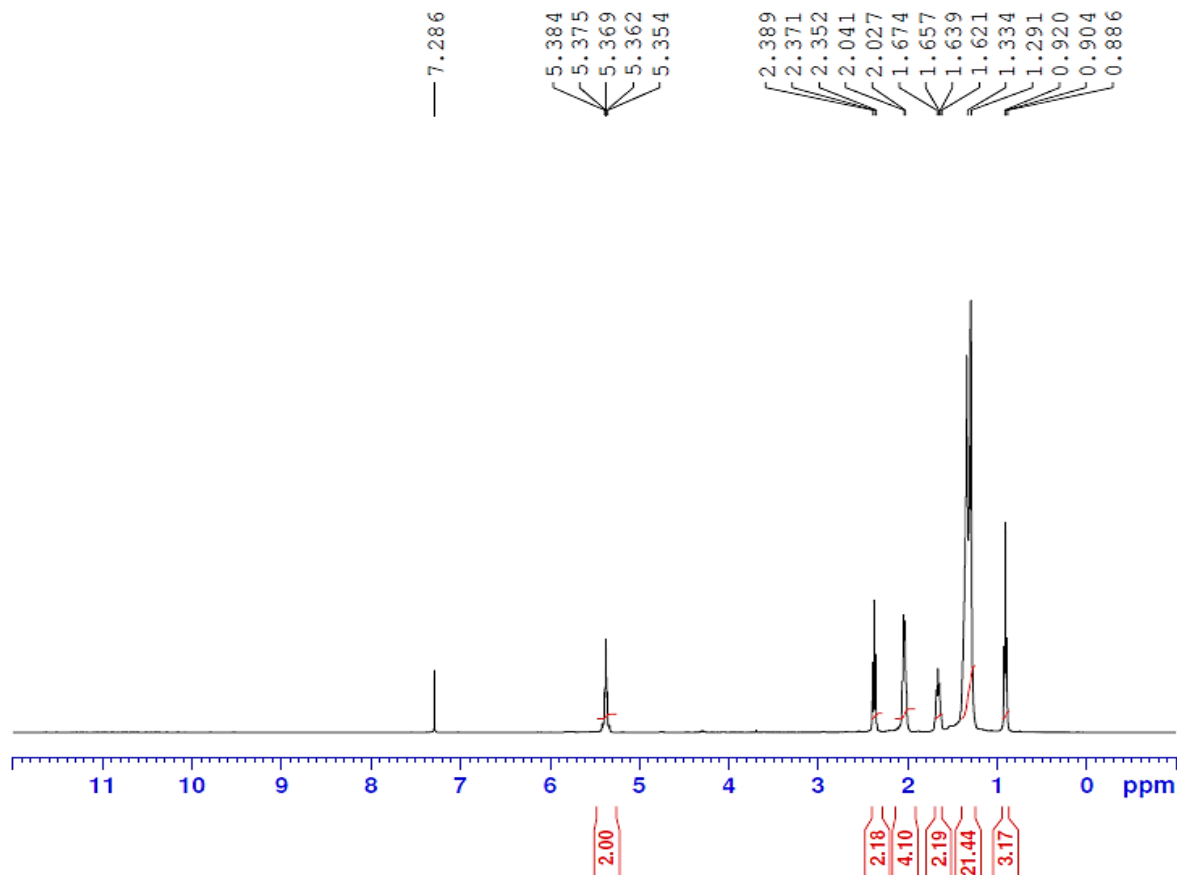
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¹H NMR Spectrum:

Product Name: Oleic acid

Product Code: PSR39186

Oleic acid
B.NO-O39186P0324
1H-NMR in CDCL₃



Identification by ¹H NMR: Conforms to structure

Maximum limits of impurities

WATER DETERMINATION

Method: Karl Fisher titration

Water Content (PSR39186) = **0.241 %**

Approved By
Head - Technical

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