

Certificate of Analysis

Pentadecane

PurCert Standard for GC

Product Number	PSR28368	CAS No.	629-62-9
Brand	PureSynth	Lot No.	2T0724
Molecular Formula	C ₁₅ H ₃₂	Date of Mfg.	July, 2024
Molecular Weight	212.42 g/mol	Date of Exp.	June, 2027

Test	Specification	Result
Description	Colorless liquid	Colorless liquid
Assay (GC-FID)	≥99.5%	99.55 %
Water (By KF)	NMT 1.0 %	0.801 %
Density	0.765 -0.772 g/cm ³	0.769 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 Internal Reference Standard**

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:

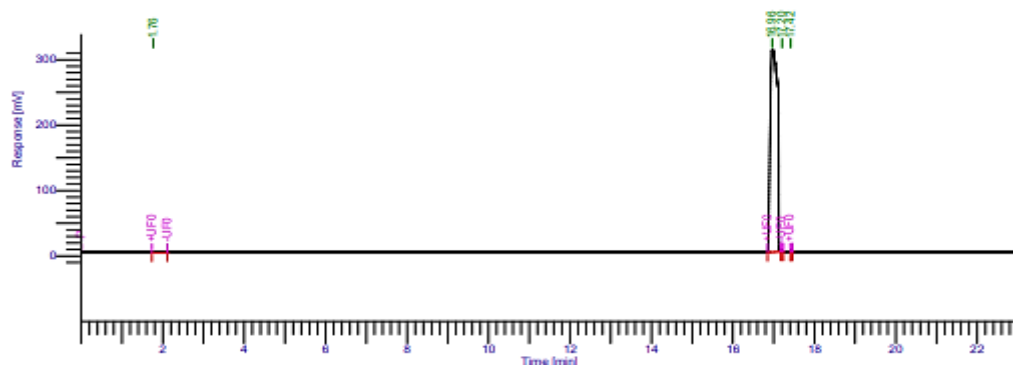
Column: Agilent Technologies DB-FFAP 30mx 0.530mm, 1.0micron

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	: 18-10-2024 12:28:07
Operator	: manager	Sample Name	: PENTADECANE 2T0724
Sample Number	: 001	Study	:
AutoSampler	: BUILT-IN	Rack/Vial	: 0/6
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	: 18-10-2024 11:49:21	Cycle	: 1



GC Reports

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Area [%]
1		1.764	11787.33	1303.77	0.31
2		16.960	3826645.82	309004.10	99.55
3		17.204	2654.81	2136.64	0.07
4		17.421	2751.19	2357.14	0.07
		3843839.15	314801.65	100.00	

Missing Component Report

Component Expected Retention (Calibration File)

All components were found

Purity by GC-FID: 99.55 %

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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:

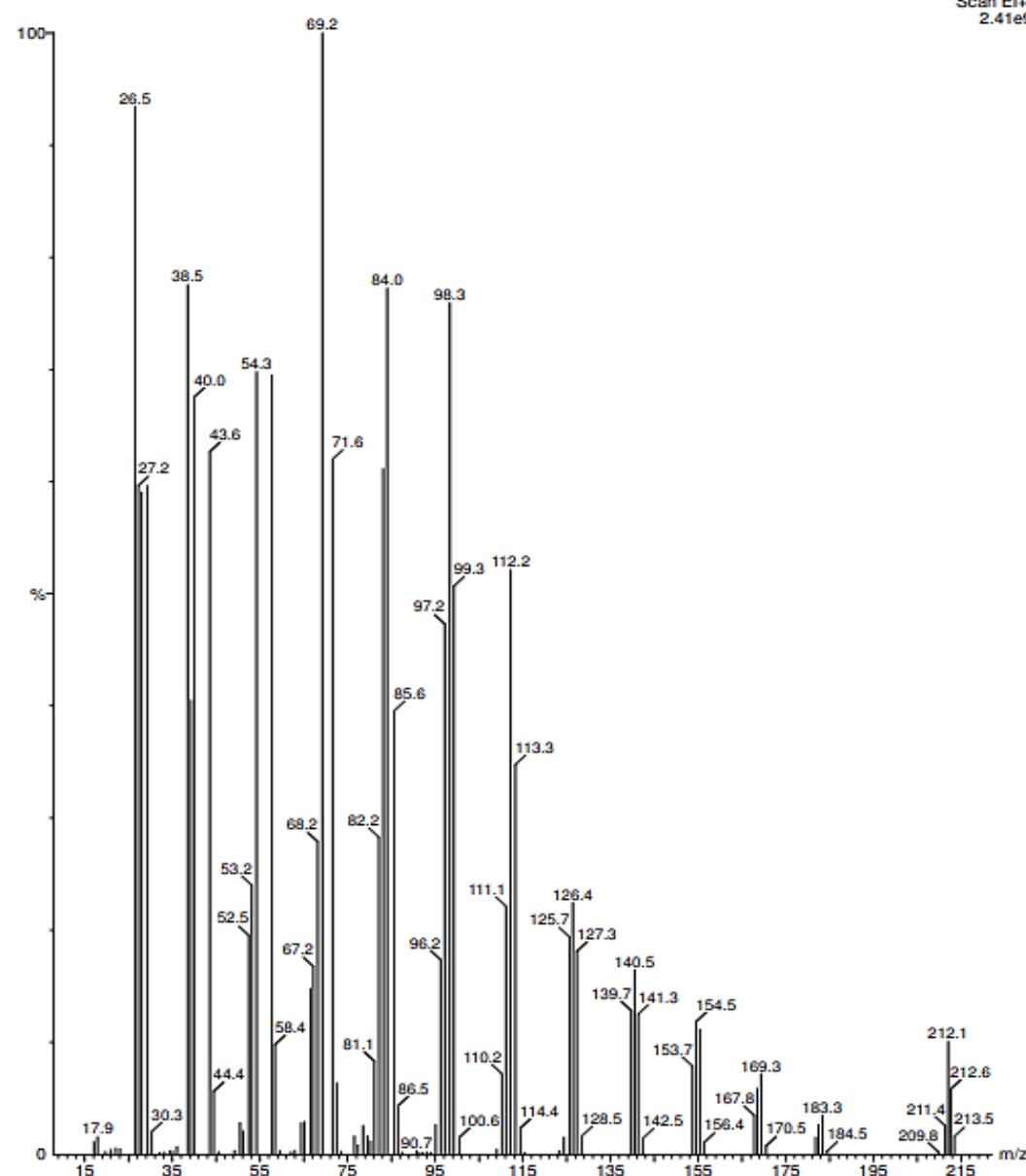
Product Name: Pentadecane

Product Code: PSR28368

PENTADEACANE 2T0724

, 18-Oct-2024 + 11:05:32

Scan El+
2.41e9



Identification by GC-MS: Conforms to molecular mass

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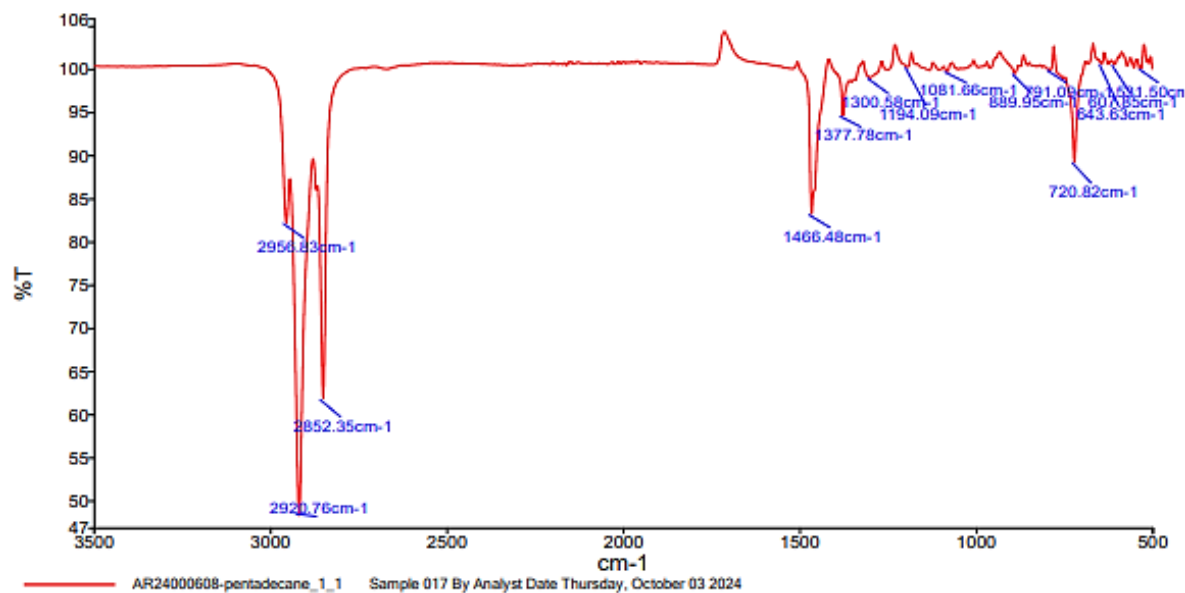
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Infrared spectrum:

Product Name: Pentadecane

Product Code: PSR28368

Analyst
Date



Source Spectra Results		
Spectrum Name		Number Of Peaks
AR24000608-pentadecane_1_1		14
List of Peak Area/Height		
Peak Number	X (cm-1)	Y (%T)
1	2956.83	82.29
2	2920.76	48.29
3	2852.35	61.92
4	1466.48	83.32
5	1377.78	94.72
6	1300.58	99.12
7	1194.09	100.36
8	1081.66	99.85
9	889.95	99.61
10	791.09	100.05
11	720.82	89.34
12	643.63	100.72
13	607.85	100.62
14	531.50	100.20

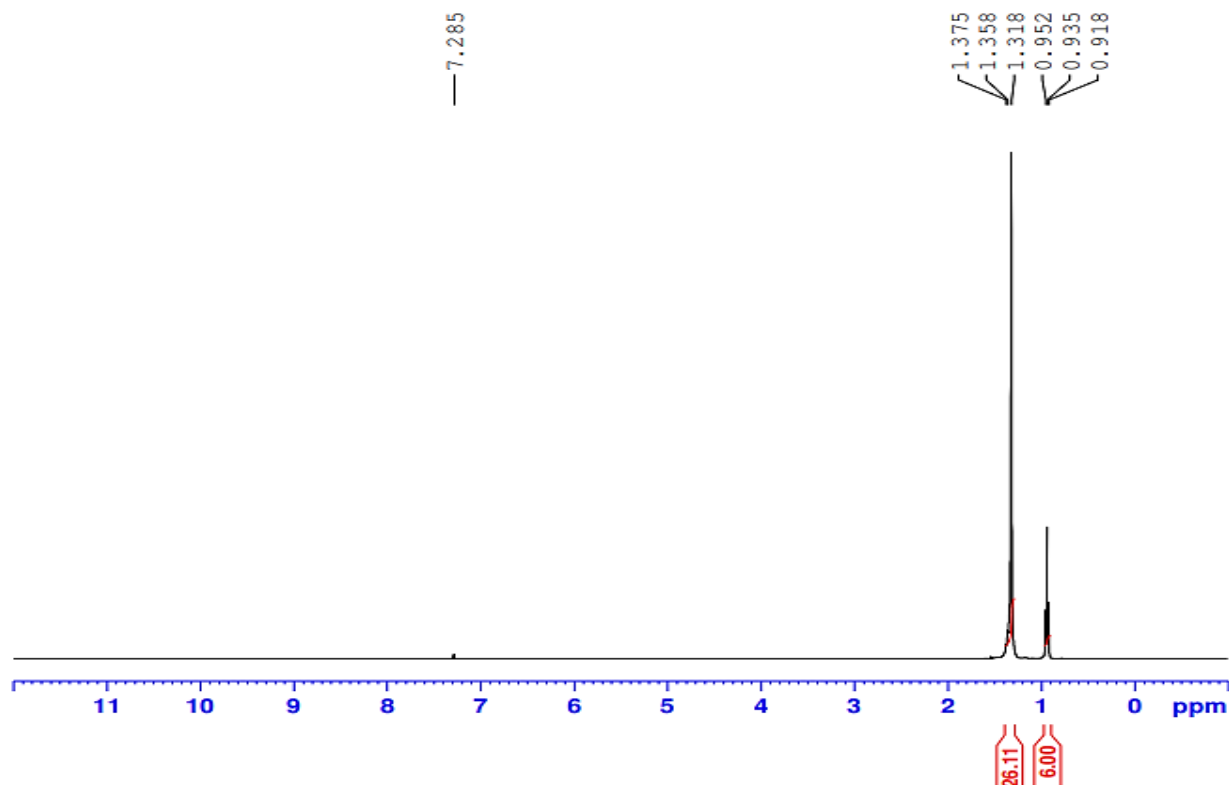
Identification by IR: Conforms to structure

¹H NMR Spectrum:

Product Name: Pentadecane

Product Code: PSR28368

Pentadecane
B.No : 2T0724
1H-NMR in CDCL₃



Identification by ¹H NMR: Conforms to structure

Maximum limits of impurities

WATER DETERMINATION

Method: Karl Fisher titration

Water Content (PSR28368) = **0.801 %**

Approved By
Head - Technical

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