

Certificate of Analysis

Product Name:

Pentane *PurSol*v Plus for GC, pesticide residue analysis, ≥99.5%

Product No.: PSR50332
Lot No.: Sample COA
Brand: PureSynth
CAS No.: 109-66-0
Molecular Formula: $\text{CH}_3(\text{CH}_2)_3\text{CH}_3$
Molecular Weight: 72.15 g/mol
Date of Mfg.: NA
Date of Exp.: NA

Test	Specification	Result
Appearance	Colourless Liquid	Colourless Liquid
Assay (by GC)	≥ 99.5 %	99.77 %
Water (by KF)	NMT 0.010 %	0.009 %
Identification by IR	Conforms to structure	Conforms to structure
Identification by GC-MS	Conforms to mass	Conforms to mass
Non-volatile Matter	NMT 0.0005 %	<0.0005 %
Suitability for pesticides residue analysis (filtered via 0,2µm pore size filter)	NMT 5 ng/l	4.80 ng/l

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For queries on this COA, please contact our technical team at technical@pure-synth.com

ASSAY BY GC-FID

METHOD: GC- FID conditions:

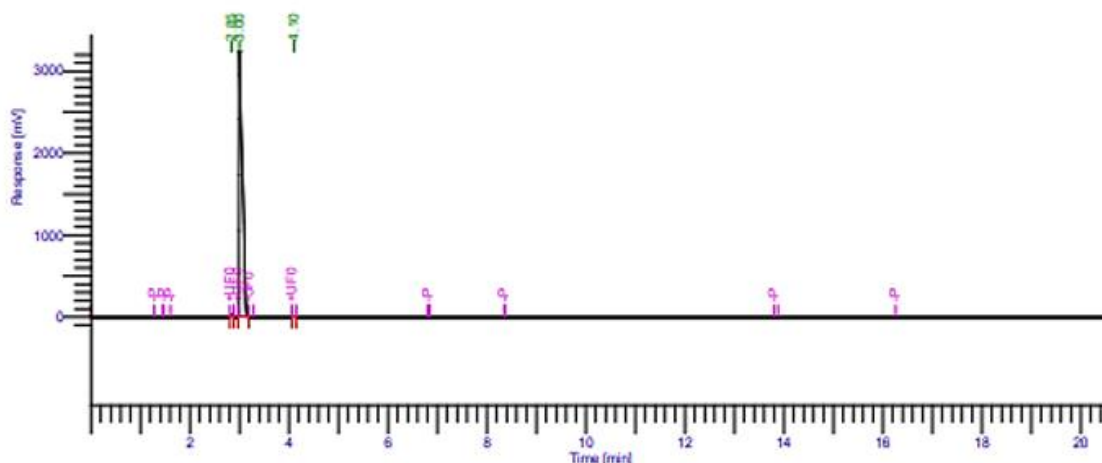
Column: Agilent Technologies DB-FFAP 30mx 0.530mm, 1.0micron

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	Sample Name	: Pentane
Operator	: manager	Study	:
Sample Number	: 001	Rack/Vial	: 0/22
AutoSampler	: BUILT-IN	Channel	: A
Instrument Name	: Clarus 690	A/D mV Range	: 1000
Instrument Serial #	: None	End Time	: 20.60 min
Delay Time	: 0.00 min	Area Reject	: 0.000000
Sampling Rate	: 12.5000 pts/s	Dilution Factor	: 1.00
Sample Volume	: 1.000000 ul	Cycle	: 1
Sample Amount	: 1.0000		



Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Area [%]
1		2.845	20812.04	11334.55	0.15
2		2.997	14203581.03	3.36e+06	99.77
3		4.101	11914.83	4822.60	0.08
			14236307.90	3.38e+06	100.00

Warning -- Signal level out-of-range in peak

Missing Component Report

Component Expected Retention (Calibration File)

All components were found

Assay by GC: 99.77 %

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IDENTIFICATION TESTS

GC-MS Spectrum:

METHOD: GC-MS conditions:

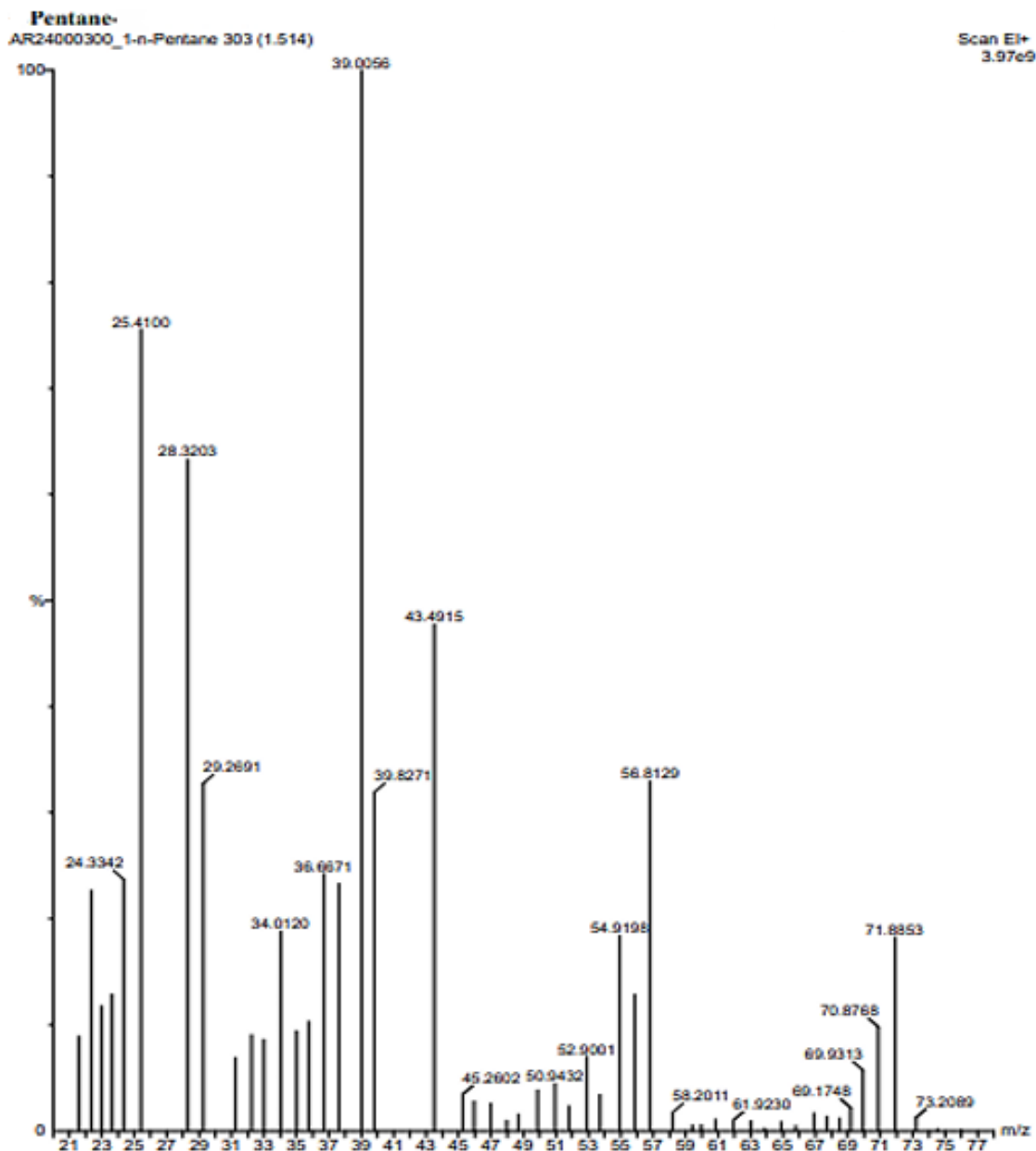
Column: Agilent Technologies, Elite -5MS, 30 m X 0.25 mm, 1.0micron

Instrument: Perkin Elmer, **Carrier gas:** Helium

Source Temp.: 230°C, Transfer line: 250°C

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

Source energy: 70eV



Identification by GC-MS: Conforms to molecular mass

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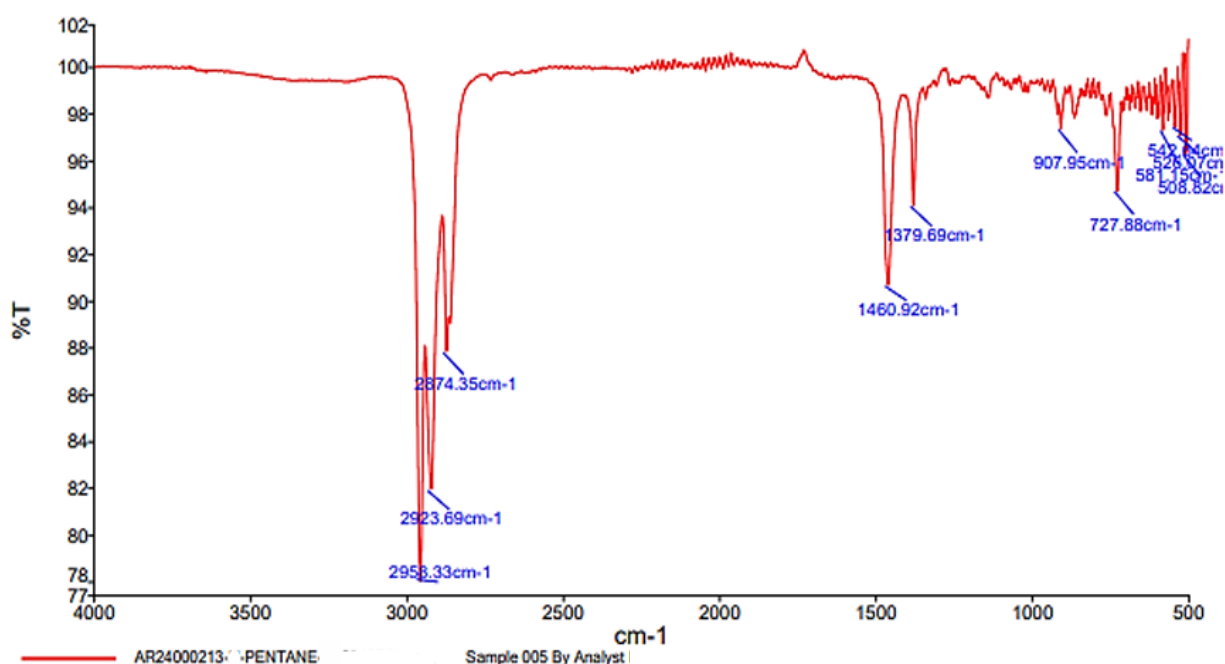
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Infrared spectrum:

Product Name: Pentane
Product Code: PSR50332

PerkinElmer Spectrum IR Version 10.7.2

Analyst
Date



Source Spectra Results		
Spectrum Name		Number Of Peaks
AR24000213-N-PENTANE		11
List of Peak Area/Height		
Peak Number	X (cm-1)	Y (%T)
1	2958.33	78.02
2	2923.69	81.96
3	2874.35	87.87
4	1460.92	90.71
5	1379.69	94.11
6	907.95	97.41
7	727.88	94.74
8	581.15	97.35
9	542.64	97.50
10	526.07	97.12
11	508.82	96.30

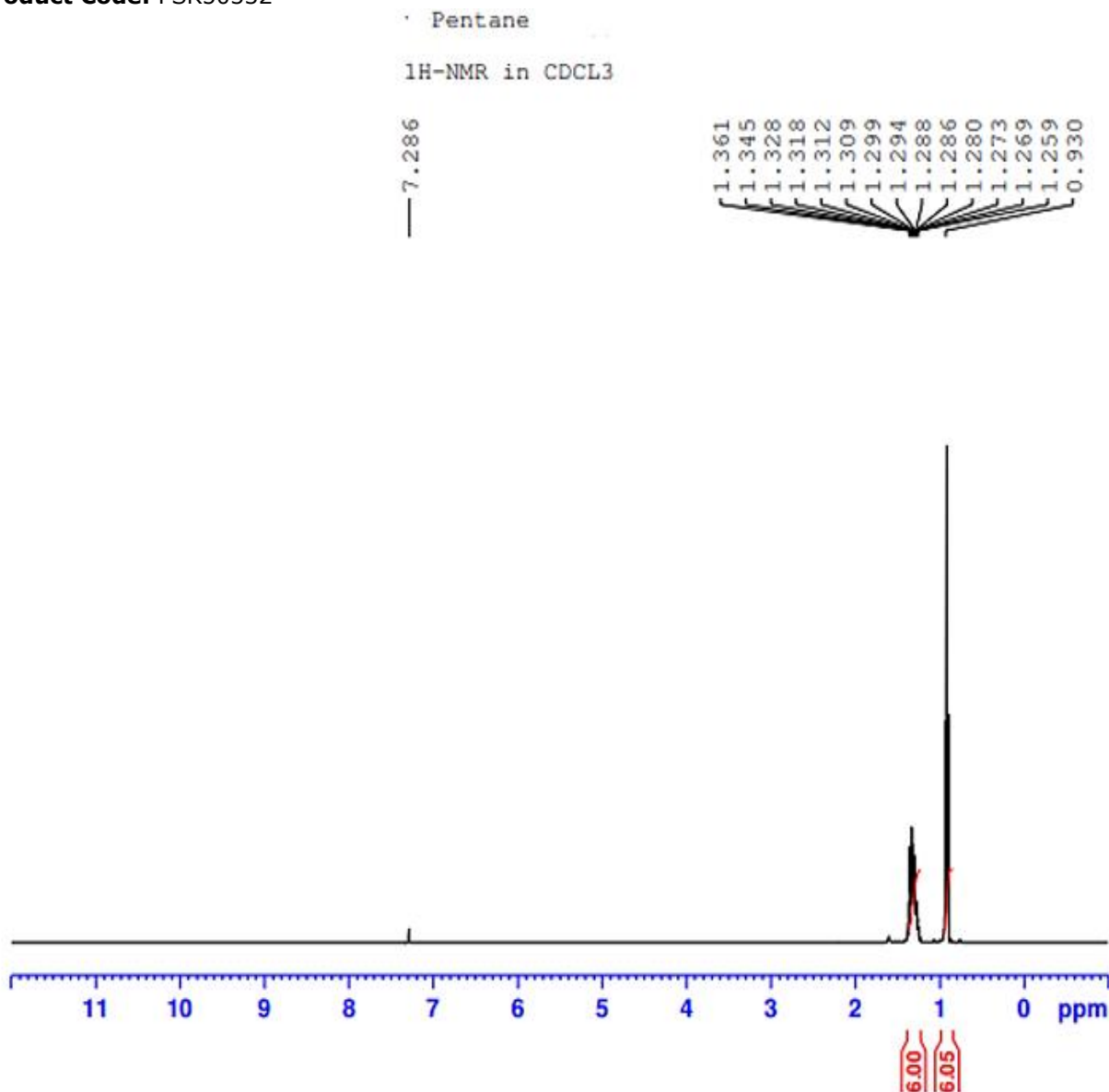
Identification by IR: Conforms to structure

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¹H NMR Spectrum:

Product Name: Pentane
Product Code: PSR50332



Identification by ¹H NMR: Conforms to structure

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Maximum limits of impurities

WATER DETERMINATION

Method: Karl Fisher titration

Water Content (PSR50332) = **0.009 %**

Remarks:

This is to certify that the mentioned batch has been analysed at the time of quality release and has been found to be in compliance with prescribed specifications

The current Specification sheet may be available at www.pure-synth.com

Inspect on receipt

Storage Condition:

Store at a room temperature and keep the container tightly closed.

PureSynth Research Chemicals GmbH

This is electronically-generated copy & is valid without a signature

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