

Certificate of Analysis

Anthracene

PurCert Standard for GC

Product Number	PSR37750	CAS No.	120-12-7
Brand	PureSynth	Lot No.	A37750H0525
Molecular Formula	C ₁₄ H ₁₀	Date of Mfg.	May, 2025
Molecular Weight	178.23 g/mol	Date of Exp.	April, 2030

Test	Specification	Result
Description	Colorless liquid	Colorless liquid
Assay (GC-FID)	≥ 99.5 %	99.90 %
Water (By KF)	NMT 0.3000 %	0.295 %
Density	1.20-1.30 g/cm ³	1.25 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 room temperature and keep the container tightly closed.

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

Assay by GC-FID

METHOD: GC- FID conditions:

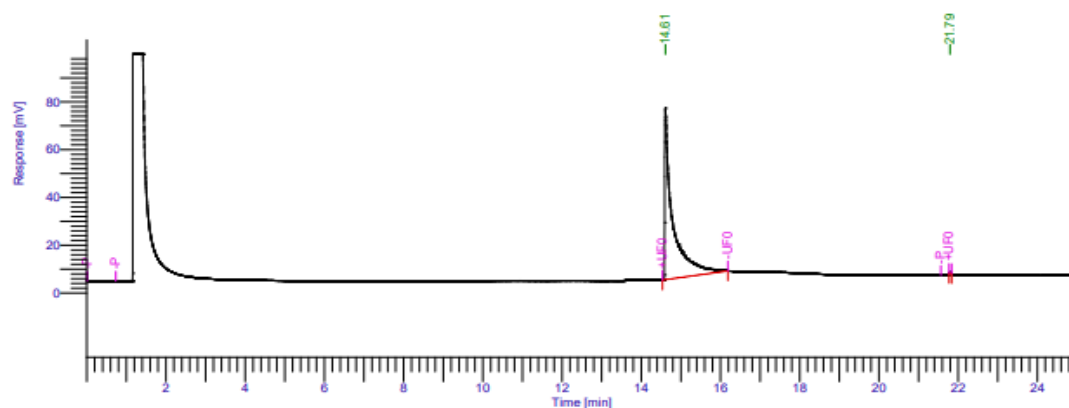
Column: Agilent Technologies DB-FFAP 30mx 0.530mm, 1.0micron

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	: 03-06-2025 13:21:46
Operator	: manager	Sample Name	: ANTHTRACENE-A37750H0525
Sample Number	: 001	Study	:
AutoSampler	: BUILT-IN	Rack/Vial	: 0/21
Instrument Name	: Clarus 690	Channel	: A
Instrument Serial #	: None	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 25.00 min
Sampling Rate	: 12.5000 pts/s		
Sample Volume	: 1.000000 ul		
Sample Amount	: 1.0000	Area Reject	: 0.000000
Data Acquisition Time	: 03-06-2025 11:40:40	Dilution Factor	: 1.00
		Cycle	: 1



GC Reports

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Area [%]
1		14.609	981587.80	71968.14	99.90
2		21.793	970.53	444.60	0.10
		982558.33	72412.74	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: 99.90 %

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

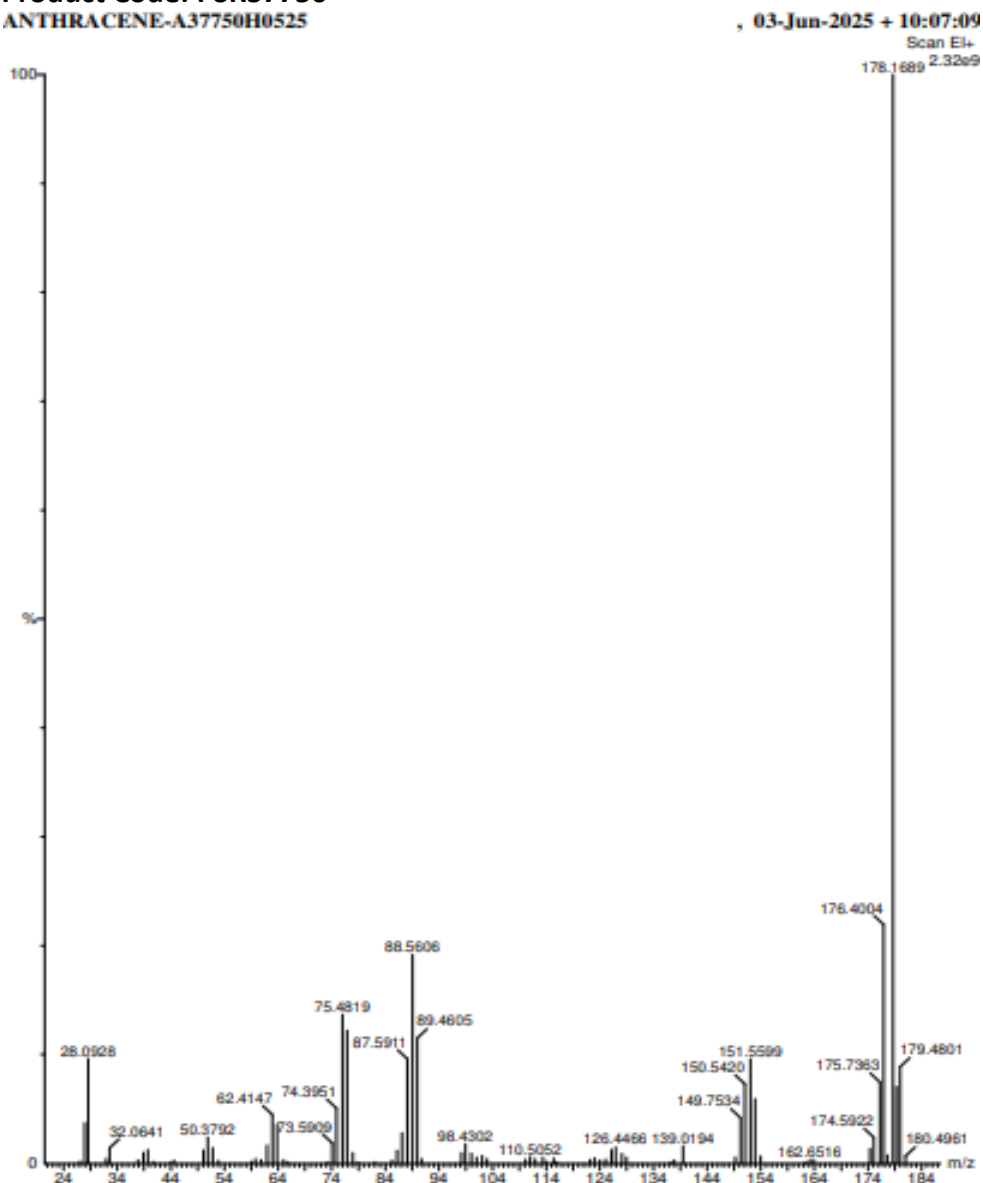
Source energy: 70eV

Mass by GC-MS:

Product Name: Anthracene

Product Code: PSR37750

ANTHRACENE-A37750H0525

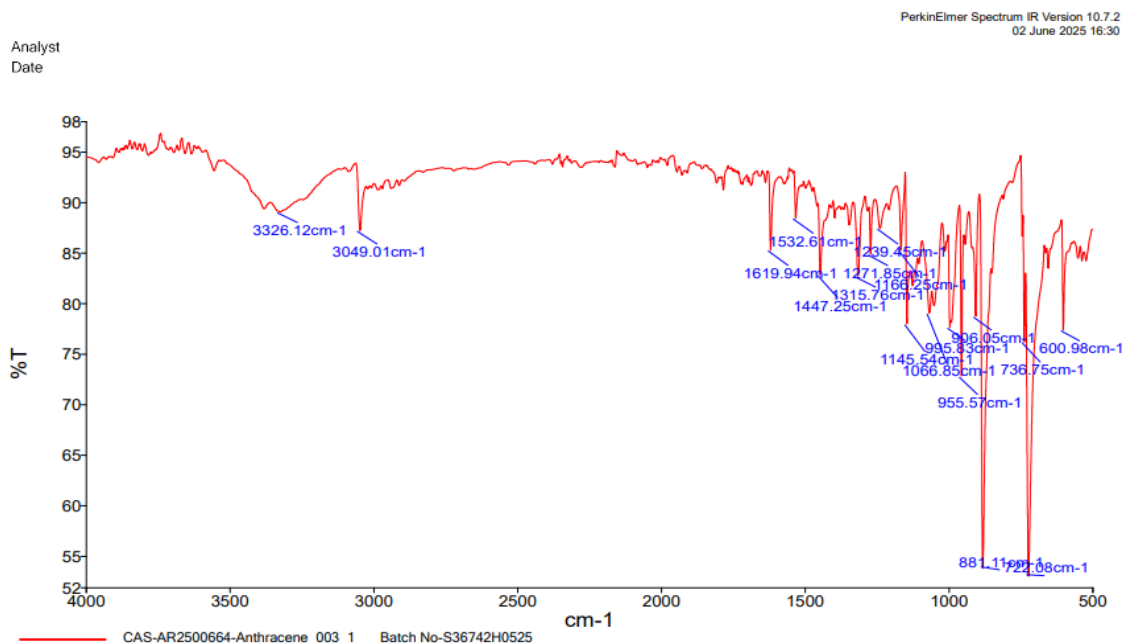


Identification by GC-MS: Conforms to molecular mass

Infrared spectrum:

Product Name: Anthracene

Product Code: PSR37750



Source Spectra Results		
Spectrum Name	Number Of Peaks	
CAS-AR2500664-Anthracene_003_1	41	
List of Peak Area/Height		
Peak Number	X (cm-1)	Y (%T)
1	3785.76	94.74
2	3697.15	95.00
3	3658.14	94.92
4	3557.30	93.19
5	3326.12	89.11
6	3049.01	87.27
7	2344.53	93.59
8	2278.14	93.54
9	2049.11	93.52
10	1928.50	92.77
11	1784.45	91.30
12	1717.08	91.82
13	1688.19	91.73
14	1637.95	92.05
15	1619.94	85.33
16	1532.61	88.50
17	1447.25	82.90
18	1397.20	88.51
19	1346.50	87.81
20	1315.76	82.75
21	1271.85	84.92
22	1239.45	87.47
23	1166.25	85.32
24	1145.54	78.03
25	1125.77	81.79
26	1066.85	79.09
27	1051.14	79.83
28	1013.21	85.24
29	995.83	77.67
30	955.57	72.84
31	942.34	85.88
32	906.05	78.78
33	881.11	53.77
34	743.93	86.72
35	736.75	76.22
36	722.08	52.99
37	653.73	83.53
38	600.98	77.41
39	549.85	84.53
40	536.15	84.26
41	521.47	84.26

Identification by IR: Conforms to structure

PureSynth Research Chemicals GmbH, 64683 Einhausen Marie-Curie-StraBe. 3, Germany

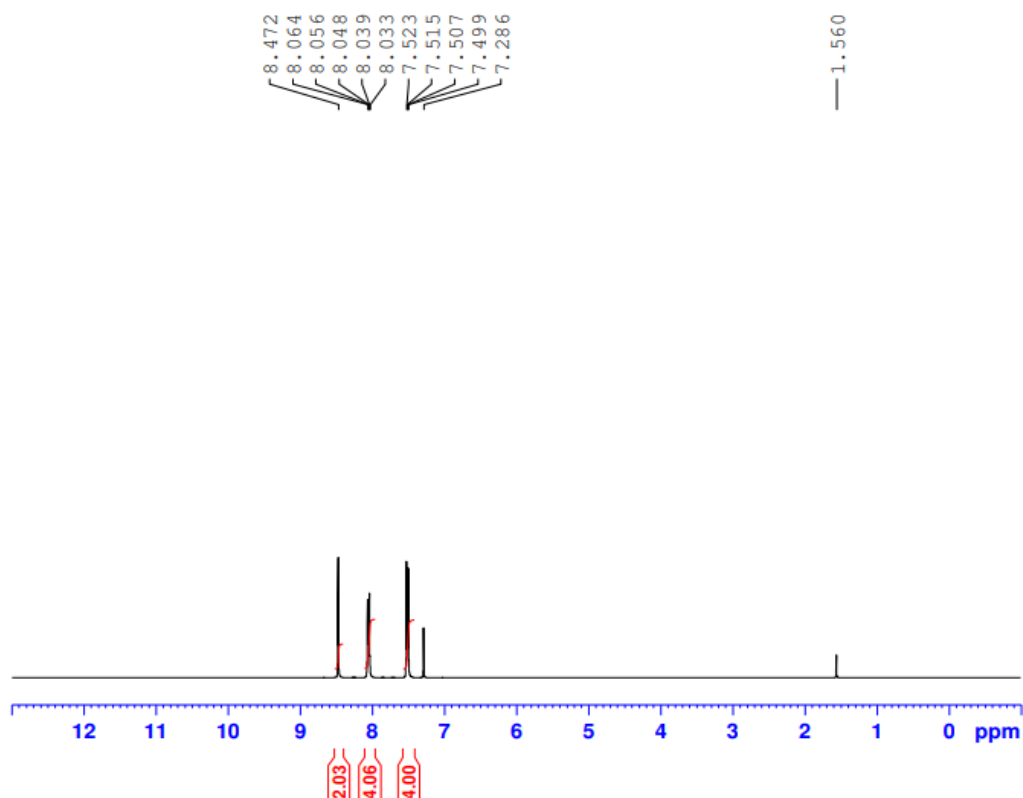
☎: 1800-8908-260, ✉: info@pure-synth.com, 🌐: www.pure-synth.com

¹H NMR Spectrum:

Product Name: Anthracene

Product Code: PSR37750

Anthracene
B.No : A37750H0525
1H-NMR in CDCL₃



Identification by ¹H NMR: Conforms to structure

Maximum limits of impurities

WATER DETERMINATION

Method: Karl Fisher titration

Water Content (PSR37750) = **0.295 %**

Approved By
Head - Technical

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