

Reference Material

This certificate is designed in accordance with *ISO 17034* and *ISO Guide 31*. This reference material (RM) was designed, produced and verified in accordance with *ISO/IEC 17025*, *ISO 17034* and a registered quality management system *ISO 9001*.

Product Name 96 Pesticide Mix in Toluene, 0.5µg/mL, 2.5µg/mL, 5µg/mL, 7.5µg/mL, 10µg/mL, 15µg/mL, 30µg/mL, 60µg/mL, 120µg/mL

Part Number B64129

Lot Number M31HB174446

Expiry Date 2023-May-23

Storage 2-8°C, Keep in the shade

CERTIFIED

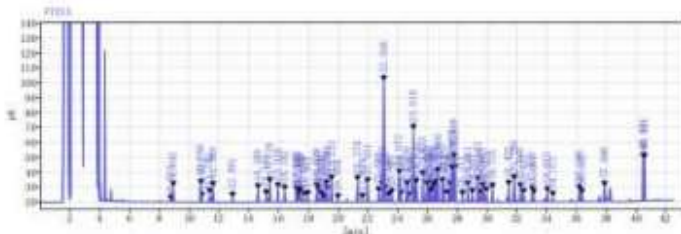
Component No.	Peak Sequence	Component	CAS No.	Concentration (µg/mL)	Uncertainty (%)
1	1	Dichlobenil	1194-65-6	0.5µg/mL	8
2	2	EPTC	759-94-4	7.5µg/mL	5
3	3	Butylate	2008-41-5	7.5µg/mL	5
4	4	Mevinfos	7786-34-7	5µg/mL	5
5	5	Nitrapyrin	1929-82-4	7.5µg/mL	5
6	6	Pebulate	1114-71-2	7.5µg/mL	5
7	7	Chloroneb	2675-77-6	2.5µg/mL	5
8	8	Heptenophos	23560-59-0	7.5µg/mL	5
9	9	Tecnazene	117-18-0	5µg/mL	5
10	10	Propachlor	1918-16-7	7.5µg/mL	5
11	11	Ethoprophos	13194-48-4	7.5µg/mL	5
12	12	Chlorpropham	101-21-3	5µg/mL	5
13	13	Trifluralin	1582-09-8	5µg/mL	5
14	14	Sulfotep	3689-24-5	2.5µg/mL	5
15	15	α-HCH	319-84-6	2.5µg/mL	5
16		Diallate	2303-16-4	5µg/mL	5
17	16	Sulfallate	95-06-7	5µg/mL	5
18	17	Hexachlorobenzene	118-74-1	2.5µg/mL	5
19	18	Dicloran	99-30-9	5µg/mL	5
20	19	Monolinuron	1746-81-2	10µg/mL	5
21	20	Chlorbufam	1967-16-4	5µg/mL	5
22	21	Propazine	139-40-2	2.5µg/mL	5
23	22	Delnatex	78-34-2	10µg/mL	5
24	23	Cyanophos	2636-26-2	5µg/mL	5
25		Terbufos	13071-79-9	5µg/mL	5
26	24	Desmetryn	1014-69-3	2.5µg/mL	5
27		Terbutylazine	5915-41-3	2.5µg/mL	5
28	25	Profluralin	26399-36-0	10µg/mL	5
29	26	Flufenoxuron	101463-69-8	7.5µg/mL	5
30	27	Propanil	709-98-8	5µg/mL	5
31		Dimethachlor	50563-36-5	7.5µg/mL	5
32	28	Chlorpyrifos-methyl	5598-13-0	2.5µg/mL	5
33	29	Alachlor	15972-60-8	7.5µg/mL	5
34	30	Terbutryn	886-50-0	5µg/mL	5
35	31	Pirimiphos-methyl	29232-93-7	2.5µg/mL	5
36		Ethofumesate	26225-79-6	5µg/mL	5

30	27	Propanil	709-98-8	5µg/mL	5
31		Dimethachlor	50563-36-5	7.5µg/mL	5
32	28	Chlorpyrifos-methyl	5598-13-0	2.5µg/mL	5
33	29	Alachlor	15972-60-8	7.5µg/mL	5
34	30	Terbutryn	886-50-0	5µg/mL	5
35		Pirimiphos-methyl	29232-93-7	2.5µg/mL	5
36	31	Ethofumesate	26225-79-6	5µg/mL	5
37	32	Dichlofluanid	1085-98-9	120µg/mL	3
38	33	Thiobencarb	28249-77-6	5µg/mL	5
39	34	Metolachlor	51218-45-2	2.5µg/mL	5
40		Aspon	3244-90-4	5µg/mL	5
41	35	Dicofol	115-32-2	5µg/mL	5
42		Flurochloridone	61213-25-0	5µg/mL	5
43	36	Cruformate	299-86-5	15µg/mL	5
44	37	Bromophos	2104-96-3	5µg/mL	5
45	38	Pirimiphos-ethyl	23505-41-1	5µg/mL	5
46		Oxychloridane	27304-13-8	2.5µg/mL	5
47	39	Isopropalin	33820-53-0	5µg/mL	5
48	40	Toiyfluanid	731-27-1	60µg/mL	4
49	41	Chlozolinate	84332-86-5	5µg/mL	5
50		Chlorfenvinphos	470-90-6	7.5µg/mL	5
51	42	Isofenphos	25311-71-1	5µg/mL	5
52	43	Methoprene	40596-69-8	10µg/mL	5
53	44	Paclobutrazol	76738-62-0	7.5µg/mL	5
54	45	ii-Endosulfan	959-98-8	15µg/mL	5
55	46	cis-Chlordane (ii)	5103-71-9	5µg/mL	5
56	47	Tetrachlorvinphos	22248-79-9	7.5µg/mL	5
57	48	Butachlor	23184-66-9	5µg/mL	5
58	49	Chlorfenson	80-33-1	5µg/mL	5
59		Iodofenphos	18181-70-9	5µg/mL	5
60	50	Hexaconazole	79983-71-4	15µg/mL	5
61	51	Profenofos	41198-08-7	15µg/mL	5
62	52	p,p'-DDE	72-55-9	2.5µg/mL	5
63	53	2,4'-DDD	53-19-0	2.5µg/mL	5
64		Flamprop-methyl	52756-25-9	2.5µg/mL	5
65	54	Buprofezin	69327-76-0	5µg/mL	5
66		Methoprotryne	841-06-5	7.5µg/mL	5
67	55	Bromopropylate	18181-80-1	5µg/mL	5
68		Oxyfluorfen	42874-03-3	10µg/mL	5
69	56	Nendrin	72-20-8	30µg/mL	5
70	57	Nitrofen	1836-75-5	15µg/mL	5
71	58	Chloropropylate	5836-10-2	2.5µg/mL	5
72		Flamprop-isopropyl	52756-22-6	2.5µg/mL	5
73	59	o,p'-DDT	789-02-6	5µg/mL	5
74	60	Chlorthiophos	60238-56-4	7.5µg/mL	5
75		Triazophos	24017-47-8	7.5µg/mL	5
76	61	Chlorbenside Sulfone	7082-99-7	5µg/mL	5

77	62	Carbophenothion	786-19-6	5µg/mL	5
78		Cyanofenphos	13067-93-1	2.5µg/mL	5
79		Benalaxyl	71626-11-4	2.5µg/mL	5
80	63	Edifenphos	17109-49-8	5µg/mL	5
81		Endosulfan Sulfate	1031-07-8	7.5µg/mL	5
82	64	p,p'-DDT	50-29-3	5µg/mL	5
83	65	Hexazinone	51235-04-2	7.5µg/mL	5
84	66	Benzoylprop-ethyl	22212-55-1	7.5µg/mL	5
85	67	EPN	2104-64-5	10µg/mL	5
86	68	Fenprothrin	39515-41-8	5µg/mL	5
87	69	Bifeno	42576-02-3	5µg/mL	5
88		Azinphos Methyl	86-50-0	15µg/mL	5
89	70	Phosalone	2310-17-0	5µg/mL	5
90	71	Leptophos	21609-90-5	5µg/mL	5
91	72	Fenarimol	60168-88-9	5µg/mL	5
92	73	Azinphos-ethyl	2642-71-9	5µg/mL	5
93	74	Coumaphos	56-72-4	15µg/mL	5
94	75	Prochloraz	67747-09-5	15µg/mL	5
95	76	Cyfluthrin	68359-37-5	30µg/mL	5
96	77	Tau-fluvalinate ¹	102851-06-9	30µg/mL	5

CERTIFICATE OF ANALYSIS

CHROMATOGRAM



- **Instrument**
GC/FID
- **Column**
HP-5(30m×0.32mm×0.25μm)
- **Injection Temp**
260°C
- **Detector Temp**
280°C
- **Method Details**
40°C, 30°C/min → 130°C(5min), 5°C/min → 250°C(5min), 20°C/min → 300°C(2min)

Note: 1. Tau-fluvalinate(CAS No. : 102851-06-9) has two peaks,the retention times are 40.441min and 40.531min.

Intended Use

This RM is intended for use in a laboratory as a calibration and quality control standard or in method development for analytical techniques.

Uncertainty

The certified value(s) and uncertainty(ies) are determined in accordance with **ISO 17034** with an 95% confidence level ($k=2$). Uncertainty is based on the Total Combined Uncertainty, including uncertainties of preparation, purity of neat materials, homogeneity, stability testing.

Traceability

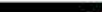
The balances used for gravimetric measurements are calibrated with weights traceable to the national standards. The calibration of the balances is verified annually by an external accredited calibration service. This analysis method has been verified using an approach consistent with *ISO 17034:2016 & ISO 17025:2017*.

Homogeneity

Random replicate samples of the final packaged RM have been analysed to prove homogeneity consistent with ISO 17034.

Storage

The RM should be stored in the original sealed bottle at the indicated temperature.

CERTIFICATE ^{of} ON ^{the} QC SIGNATURE	
2022-May-24 th	
	RM Release ^{of}

