溶媒リテンションインデックスデータ

カラム : **DB-624**
125-1334
30 m x 0.53 mm、3.00 µm

キャリアガス : Helium、constant pressure at 30 cm/sec (40 °C)

オーブン : 40 °C for 5 min
40-260 °C at 10 °C/min
260 °C for 3 min

注入 : Split 1:10、250 °C

検出器 : FID、300 °C

カラム : **DB-1**
125-1034
30 m x 0.53 mm、3.00 µm

キャリアガス : Helium、constant pressure at 30 cm/sec (40 °C)

オーブン : 40 °C for 5 min
40-260 °C at 10 °C/min

注入 : Split 1:10、250 °C

検出器 : FID、300 °C

カラム : **DB-WAX**
125-7032
30 m x 0.53 mm、1.00 µm

キャリアガス : Helium、constant pressure at 34 cm/sec (40 °C)

オーブン : 40 °C for 5 min
40-230 °C at 10 °C/min
230 °C for 7 min

注入 : Split 1:10、250 °C

検出器 : FID、300 °C

この溶媒一覧表には多くの用途があり、特にバルク溶媒中の不純物を測定するためのものではありません。カラムはすべて、その容量、選択性、再現性で選択しました。

警告 : 相当品のカラムには、上記カラムと同じ選択性はありません。相当品でこのデータを使用することはお奨めしません。

Analyte	DB-624	DB-1	DB-WAX
1,1,1,2-tetrachloroethane	14.38	13.43	13.80
1,1,1-trichloroethane	8.05	7.56	4.85
1,1,2,2-tetrachloroethane	16.38	14.67	17.73
1,1,2-trichloroethane	12.60	11.00	13.80
1,1,2-trichlorotrifluoroethane (Freon 113)	4.00	4.09	2.13
1,10-decanediol	27.43	25.84	34.11
1,1-dichloroethane	6.11	5.02	9.10
1,1-dichloroethylene (vinylidine chloride)	4.00	3.75	2.65
1,1-dichloropropane	8.72	8.55	9.71
1,1-dichloropropene	8.34	7.85	4.56
1,2,3-trichlorobenzene	22.23	21.28	21.25
1,2,3-trichloropropane	16.46	14.84	17.06
1,2,3-trimethylbenzene (hemimellitene)	18.18	17.61	15.29
1,2,4,5-tetrachlorobenzene	24.02	23.35	22.08
1,2,4-trichlorobenzene	21.41	20.63	20.03
1,2,4-trimethylbenzene (pseudocumene)	17.47	16.99	14.27
1,2-dibromo-3-chloropropane (DBCP)	20.02	18.50	20.57
1,2-dibromoethane (EDB)	13.43	12.10	13.80
1,2-dichlorobenzene	18.69	17.81	17.80
1,2-dichloroethane (ethylene dichloride)	9.62	7.17	7.20
1,2-dichloropropane	10.17	8.93	4.95
1,3,5-trichlorobenzene	20.35	19.85	18.19
1,3,5-trimethylbenzene (mesitylene)	16.82	16.41	13.55
1,3-butanediol	16.10	13.30	20.96
1,3-dichlorobenzene	17.96	17.20	16.60
1,3-dichloropropane	12.86	11.35	12.38
1,3-diisopropylbenzene	20.35	20.02	15.47
1,3-dioxolane	7.30	4.09	7.09
1,3-propanediol	13.13	9.95	18.97
1,4-butanediol	17.70	15.03	23.14
1,4-dichlorobenzene	18.79	17.31	17.06
1,4-diisopropylbenzene	20.73	20.42	16.20
1,4-dioxane	10.38	9.18	9.65
1,5-pentanediol	19.52	17.17	24.43
1,6-hexanediol	21.30	19.17	25.75
1,7-heptanediol	22.97	21.03	27.26
1,8-octanediol	24.54	22.73	29.06
1,9-nonanediol	26.02	24.33	31.29
1-butanol	9.73	7.90	11.48
1-chloro-4-nitrobenzene (diisopropyl ketone)	3.06	21.34	23.97
1-chlorobutane	8.25	7.56	3.99
1-chlorohexane	14.21	13.69	9.10
1-decanol	22.65	21.85	21.12
1-heptanol	17.22	16.13	16.91
1-hexanol	15.06	13.81	15.31
1-methyl-2-pyrrolidone	19.66	17.21	20.71
1-nonanol	20.97	20.11	19.80
1-octanol	19.17	18.21	18.40
1-pentanol	12.63	11.11	13.54
1-penten-3-ol	10.20	8.54	11.77
1-penten-3-one (ethyl vinyl ketone)	10.03	8.40	8.56
1-propanol	6.34	4.44	9.11
2,2-dichloropropane	7.16	6.34	3.99
2,3-butanediol	14.14	11.40	18.70
2,3-butanedione (diacetal)	6.99	5.09	7.44
2,3-pentanedione	10.34	8.66	9.49
2,4-dimethyl-3-pentanone	12.94	11.90	7.94
2,6-dimethyl-4-heptanone	17.06	16.26	12.03
2-butanone (MEK)	7.19	5.41	5.35
2-buten-1-ol (crotyl alcohol)	9.87	7.99	12.95
2-butoxyethanol (butyl cellosolve)	15.89	14.72	16.31
2-chlorotoluene	16.71	16.07	14.71
2-ethoxyethanol (cellosolve)	10.98	9.39	13.11
2-ethoxyethyl acetate	15.57	14.40	14.31
2-ethyl-1-hexanol	18.40	17.42	17.41
2-heptanol	15.63	14.61	14.71
2-heptanone	15.46	14.26	12.27
2-hexanol	13.31	12.06	12.95
2-hexanone	13.01	11.60	10.04
2-methoxyethanol (methyl cellosolve)	8.67	6.74	12.25
2-methyl-1-butanol (active amyl alcohol)	11.87	10.30	12.73
2-methyl-2-butanol (tert-amyl alcohol)	8.73	7.14	8.43
2-methyl-3-buten-2-ol	7.91	6.17	9.11
2-methyl-3-pentanone	11.85	10.59	7.94
2-methylbutyl acetate	14.82	14.81	12.05
2-nitrotoluene	21.60	20.02	22.62
2-octanone	17.63	16.46	14.20
2-pentanol	10.60	9.10	10.94
2-pentanone	10.11	8.46	7.44
2-penten-1-ol	12.63	11.11	14.65
2-phenoxyethanol	22.65	20.92	26.14
2-propen-1-ol (allyl alcohol)	6.21	4.09	10.78
2-propyn-1-ol (propargyl alcohol)	7.55	4.57	15.16
3-buten-1-ol	9.02	6.95	12.02
3-chloropropene (allyl chloride)	4.57	3.96	3.46
3-chlorotoluene	16.82	16.07	14.90
3-heptanol	15.53	14.54	14.29
3-heptanone	15.29	14.19	11.66
3-hexanol	13.16	11.97	12.49
3-hexanone	12.80	11.52	9.34
3-methyl-1-butanol (iso-amyl alcohol)	11.78	10.17	12.73
3-methyl-2-butanone	9.21	7.60	6.15
3-methyl-2-buten-1-ol	12.85	11.33	14.82
3-nitrotoluene	22.40	20.72	21.92
3-octanone	17.45	16.46	13.66
3-pentanol	10.60	9.10	10.66
3-pentanone	10.34	8.80	7.44
3-penten-2-one (methyl vinyl ketone)	6.93	5.09	6.61
4-chlorostyrene (diisobutyl ketone)	19.35	18.56	18.19
4-chlorotoluene	16.82	16.07	14.90
4-heptanone	14.95	13.88	11.06
4-hexen-3-one	14.24	12.76	12.55
4-hydroxy-4-methyl-2-pentanone	14.98	12.89	15.70
4-methyl-2-pentanol	12.28	10.93	11.89
4-methyl-2-pentanone	11.64	10.22	8.19
4-methyl-3-penten-3-one	13.20	11.90	11.26
4-methylstyrene	17.68	16.99	15.61
4-nitrotoluene	22.79	21.05	23.14
4-phenyl-2-butanone (benzyl acetone)	22.91	21.36	22.76
4-tert-butyltoluene	19.35	18.97	15.13
5-methyl-2-hexanone	14.73	13.46	11.40

Analyte	DB-624	DB-1	DB-WAX
5-methyl-3-heptanone	16.52	15.55	12.38
acetal (acetaldehyde diethyl acetal)	10.58	10.21	5.09
acetaldeyde	2.46	2.16	2.47
acetone	4.05	3.05	3.60
acetic acid	9.10	16.87	16.87
acetonitrile	4.27	2.87	8.12
acetophenone	19.69	18.13	20.13
acrolein	3.81	2.98	4.10
acrylic acid	12.21	19.16	19.61
acrylonitrile	5.22	3.43	7.81
a-ethylphenethyl alcohol	22.65	21.38	23.10
allyl ether	9.65	9.05	6.04
allyl ethyl ether	6.41	6.00	3.05
a-methylphenyl alcohol	19.60	18.03	22.00
a-methylstyrene	17.22	16.62	15.13
amyl acetate	15.57	14.04	10.96
benzaldehyde	17.45	15.88	17.25
benzene	8.69	8.00	6.46
benzonitrile 1	18.21	16.26	19.55
benzyl acetate	21.07	19.86	21.01
benzyl alcohol	19.27	17.42	22.82
benzyl ether	29.08	27.72	30.41
b-ethylphenethyl alcohol	23.03	21.71	24.12
bromobenzene	16.39	15.54	15.47
bromochloromethane	7.59	4.79	9.26
bromodichloromethane	10.64	9.22	11.76
bromoethane	4.27	3.75	2.95
bromoform	15.61	14.20	17.00
butyl acetate	13.24	12.36	9.85
butyl ether	14.41	14.39	6.97
butyl ethyl ether	9.34	9.18	3.27
butyl methyl ether	7.10	6.85	2.80
butylbenzene	18.69	18.24	14.81
butyraldehyde	6.84	5.29	4.72
carbon disulfide	4.27	4.09	2.65
carbon tetrachloride	8.34	8.18	4.85
chlorobenzene	14.25	13.44	13.00
chlorodibromomethane	13.25	11.81	14.52
chloroform	7.75	6.34	8.58
cis-1,2-dichloroethylene	7.16	5.98	7.84
cis-1,3-dichloropropene	11.38	10.20	11.27
cis-2-hexen-1-ol	15.19	13.81	16.31
cis-3-hexen-1-ol	14.88	13.51	15.87
cis-4-hepten-1-ol	17.22	16.02	17.67
crotonaldehyde	9.18	7.03	9.07
cyclohexane	8.10	8.32	2.27
cyclohexanol	15.63	14.26	16.31
cyclohexanone	16.04	14.26	14.61
cyclopentanol	3.16	11.56	14.57
cyclopentanone	13.39	11.42	12.46
decane	16.82	17.12	7.63
dibromomethane	10.37	8.93	11.98
diethylene glycol	18.24	15.60	23.91
diethylene glycol monobutyl ether	21.46	20.26	21.74
diethylene glycol monoethyl ether	18.04	16.60	19.48
diethylene glycol monomethyl ether	16.78	15.09	19.06
diglyme (diethylene glycol dimethyl ether)	9.92	8.68	6.04
DMF (dimethylformamide)	13.73	10.80	15.25
DMSO (methyl sulfoxide)	15.58	11.94	19.21
dodecane	20.58	20.85	12.23
epichlorohydrin	11.22	9.35	11.69
ethanol	3.47	2.68	6.46
ethyl acetate	7.34	6.21	5.03
ethyl acrylate	10.02	8.93	7.87
ethyl benzoate	21.22	20.15	20.27
ethyl ether	3.72	3.50	2.13
ethyl formate	4.27	3.56	3.78
ethyl propionate	10.37	9.42	6.93
ethyl vinyl ether	3.72	3.50	2.39
ethylbenzene	14.42	13.90	11.13
ethylene glycol	12.15	8.54	19.47
ethylene glycol monobutyl ether	15.84	14.68	16.24
ethylene glycol monoethyl ether	10.95	9.35	13.11
ethylene glycol monomethyl ether	8.64	6.72	12.24
fluorobenzene	9.18	8.36	7.72
fluorotrichloromethane (Freon 11)	3.24	3.23	2.13
furan	3.72	3.36	3.27
furfural	14.63	12.54	18.32
furfuryl alcohol	15.32	13.25	19.90
glycidol	11.93	9.10	17.25
glyme (propylene glycol dimethyl ether)	8.65	7.56	6.04
heptanal	15.60	14.52	12.32
heptane	9.15	9.58	2.65
hexachloro-1,3-butadiene	21.69	21.46	17.84

Analyte	DB-624	DB-1	DB-WAX
hexadecane	26.63	26.88	18.70
hexanal	13.14	11.88	10.07
hexane	5.82	6.25	2.05
iodobenzene	18.10	17.87	18.30
iodomethane	4.27	3.75	3.46
iso-amyl acetate	14.75	13.97	10.31
iso-butanol	8.60	6.74	10.96
iso-butyl acetate	12.19	11.30	8.36
iso-butylbenzene	17.68	17.31	13.47
iso-butyraldehyde	5.66	4.37	3.54
iso-octane	8.81	9.27	2.44
isophorone	21.04	19.31	19.47
iso-propanol	4.27	3.22	6.28
iso-propyl acetate	8.87	7.88	5.32
iso-propyl ether	6.23	6.21	3.27
iso-propylbenzene (cumene)	15.88	15.43	12.13
methacrolein	6.01	4.68	4.83
methacrylonitrile	7.53	5.36	7.54
methanol	2.59	2.15	5.40
methyl acetate	4.60	3.79	3.78
methyl benzoate	19.90	18.76	19.70
methyl formate	2.80	2.44	2.85
methyl propionate	7.88	6.78	5.54
methyl tert-butyl ether (MTBE)	5.30	5.06	2.30
methylene chloride	4.80	3.85	6.18
morpholine	12.98	13.62	13.62
m-tolualdehyde	19.63	18.23	19.77
m-xylene	14.62	14.11	11.44
nitrobenzene	20.35	18.56	21.41
nonanal	19.71	18.84	16.05
nonane	14.63	14.95	4.97
octanal	17.76	16.80	14.29
octane	12.11	12.48	3.22
o-tolualdehyde	19.63	18.23	19.73
o-xylene	15.28	14.69	12.39
pentachlorobenzene	27.10	26.38	25.09
pentadecane	25.26	25.51	17.28
pentanal (valeraldehyde)	10.25	8.76	7.46
pentane	3.37	3.51	1.89
pentyl ether	18.53	18.51	12.66
propionaldehyde	3.91	3.11	3.25
propionic acid	11.89	18.18	18.18
propionitrile	7.25	4.43	8.72
propyl acetate	10.51	9.47	7.38
propyl benzoate	22.92	21.91	21.46
propyl ether	9.05	9.05	3.05
propyl formate	7.66	6.48	5.93
propyl propionate	13.07	12.25	9.17
propylbenzene	16.56	16.07	12.86
propylene glycol (1,2-propanediol)	13.16	9.90	18.96
p-tolualdehyde	19.96	18.50	20.13
p-xylene	14.62	14.11	11.30
pyridine	11.70	10.21	12.44
sec-butanol	7.55	5.80	8.77
sec-butyl acetate	11.76	10.91	7.69
sec-butylbenzene	17.68	17.37	13.64
styrene	15.28	14.55	13.80
styrene oxide	19.46	18.24	19.46
tert-amyl methyl ether	8.89	8.68	3.27
tert-butanol	5.01	3.72	5.54
tert-butyl acetate	10.02	9.32	5.40
tert-butyl ethyl ether	6.90	6.85	2.47
tert-butylbenzene	17.39	16.99	13.41
tetrachloroethylene	12.86	12.66	8.58
tetradecane	23.80	24.06	15.75
tetrahydropyran	10.06	9.35	5.83
THF (tetrahydrofuran)	7.64	6.75	4.45
toluene	11.93	11.33	9.06
trans-1,2-dichloroethylene	5.33	6.17	4.38
trans-1,3-dichloropropene	12.30	10.80	12.78
trans-1,4-dichloro-2-butene	16.46	14.91	17.00
trans-2-hepten-1-ol	17.22	16.13	17.77
trichloroethylene	9.80	9.22	7.84
tridecane	22.24	22.51	14.09
triethylamine	8.91	8.93	3.26
triglyme (triethylene glycol dimethyl ether)	21.95	20.75	20.77
undecane	18.78	19.07	10.10
vinyl acetate	6.37	4.09	5.03

低ブリード液相を使用した農薬の溶出順位

農薬リテンションタイムデータ

カラム：　30 m x 0.25 mm、0.25 µm

キャリアガス：　Helium at 35 cm/sec、measured at 50 °C

オーブン：　50 °C for 1 min
50-100 °C at 25 °C/min
100-300 °C at 5 °C/min (DB-1701 ramped to 280 °C)
300 °C for 5 min (DB-1701 held at 280 °C for 10 min)

DB-35ms を用いて優れた結果が得られたことが報告されています。その選択性、不活性さ、温度上限の高さにより、選択性検出器アプリケーションにおいて、一次分析カラムとして使用されています。

分析対象成分：アルファベット順

Compound	DB-5ms	DB-XLB	DB-35ms	DB-17ms	DB-1701
Alachlor	24.29	25.84	27.40	27.91	27.59
Aldrin	25.99	27.33	28.28	28.54	26.79
Aspon	25.72	26.69	28.11	27.55	28.22
Atrazine	21.11	22.65	24.82	24.50	25.12
Azinphos-ethyl	37.51	39.94	43.31	43.27	48.74
Azinphos-methyl	36.28	38.83	42.60	42.75	45.86
α-BHC	20.01	21.83	23.50	23.83	23.06
β-BHC	21.12	24.95	26.62	26.70	24.84
γ-BHC	21.46	23.37	25.32	25.73	27.97
δ-BHC	22.70	25.98	27.83	28.08	28.89
Bolstar	32.16	33.89	36.25	35.94	34.96
1-Bromo-2-nitrobenzene (IS)	11.50	12.73	14.87	15.66	14.68
2-Bromobiphenyl (SS)	17.31	18.49	20.24	21.01	18.62
Captafol	33.91	36.35	39.46	40.31	40.40
Captan	27.98	30.15	33.20	34.14	32.25
Carbophenothion	32.56	34.49	36.69	36.26	35.48
γ-Chlordane	28.54	30.72	31.77	31.91	30.91
α-Chlordane	29.06	30.90	32.19	32.43	31.21
Chlorfenvinphos	27.61	29.34	31.47	31.15	31.02
4-Chloro-3-nitrobenzotrifluoride (SS)	7.66	8.55	8.83	8.59	10.00
Chlorobenzilate	31.28	32.82	34.03	34.27	33.78
Chloroneb	15.53	16.87	18.68	19.37	17.92
Chloropropylate	31.28	32.92	34.48	34.85	33.98
Chlorothalonil	22.16	26.44	28.06	28.08	27.73
Chlorpyrifos	25.84	27.52	29.31	28.86	28.36
Chlorpyrifos-methyl	23.86	25.64	27.79	27.55	26.70
Coumaphos	38.74	41.40	44.01	43.52	
Crotoxyphos	28.16	29.48	32.13	32.09	31.89
Dacthal	26.11	27.55	29.13	29.61	28.82
p,p' -DDD	31.62	33.93	35.60	35.92	34.60
p,p' -DDE	29.97	31.82	33.20	33.53	31.50
p,p' -DDT	33.07	35.12	36.71	37.05	35.37
Demeton-O	17.91	18.97	20.58	20.13	20.49
Demeton-S	20.52	21.83	24.03	23.67	24.05
Diallate A	19.88	20.87	21.97	22.31	21.42
Diallate B	20.26	21.35	22.40	22.71	22.10
Diazinon	21.99	23.05	24.59	24.21	24.16
1,2-Dibromo-3-chloropropane	6.63	7.11	z8.05	8.47	7.90
α,α-Dibromo-m-xylene	16.72	18.27	20.60	21.40	19.41
Dibutylchlorendate (SS)	36.32	37.75	38.67	38.74	39.65
Dichlofenthion	23.64	25.07	26.58	26.02	26.02
Dichlorvos	9.31	9.93	11.53	11.39	12.45

分析対象成分 : アルファベット順 (続き)

Compound	DB-5ms	DB-XLB	DB-35ms	DB-17ms	DB-1701
Dicrotophos	19.12	20.58	23.77	23.98	24.66
Dieldrin	30.14	32.03	33.59	33.90	32.16
Dimethoate	20.52	22.32	25.80	26.02	26.70
Dioxathion	21.41	22.78	25.53	25.49	24.80
Disulfoton	22.37	23.68	25.53	25.09	24.95
Endosulfan I	29.06	30.95	32.37	32.61	30.72
Endosulfan II	31.39	34.11	36.04	36.36	34.97
Endosulfan sulfate	32.88	35.74	37.84	38.13	38.91
Endrin	31.00	32.92	34.89	35.35	32.97
Endrin aldehyde	31.96	34.57	37.00	37.52	37.01
Endrin ketone	34.68	37.26	40.23	40.99	41.57
EPN	34.86	37.04	39.61	39.26	41.19
Ethion	31.55	33.09	35.39	35.11	34.85
Ethoprop	18.47	19.60	21.42	21.02	21.29
Ethylparathion	26.17	28.09	29.94	29.36	30.10
Famphur	32.38	34.38	37.69	37.72	39.69
Fenitrothion	25.19	26.96	29.47	29.22	29.36
Fensulfothion	31.25	33.31	36.44	36.36	37.10
Fenthion	26.02	27.62	30.25	30.22	29.07
Fonofos	21.76	23.19	25.29	25.03	24.41
Heptachlor	24.52	25.98	26.92	27.11	25.69
Heptachlor epoxide	27.59	29.32	30.76	31.07	29.68
Hexachlorobenzene	20.12	22.13	22.91	23.01	21.03
Hexachlorocyclopentadiene	11.42	11.94	12.08	12.25	11.60
Hexamethylphosphoramide	10.25	11.10	12.74	12.54	15.46
Isodrin	27.17	28.71	30.10	30.48	28.44
Kelthane	35.37	37.59	39.54	39.91	
Kelthane Decomp. Product	26.57	28.71	30.35	30.68	
Leptophos	36.17	38.15	40.73	40.55	40.94
Malathion	25.62	26.96	29.31	29.13	29.20
Merphos	30.01	31.47	32.94	32.22	31.89
Methoxychlor	35.22	37.05	39.54	40.31	38.91
Methylparathion	24.14	26.14	28.56	28.22	28.57
Mevinphos	13.50	14.48	16.72	16.69	17.56
Mirex	37.09	39.12	40.67	40.99	37.96
Monocrotophos	19.55	21.15	24.70	24.97	26.50
Naled	18.86	20.15	22.72	22.70	22.41
trans-Nonachlor	29.18	31.15	31.91	31.91	31.29
Pentachloronitrobenzene (IS)	21.22	23.47	24.84	25.08	23.64
cis-Permethrine	38.62	40.27	42.12	42.53	42.25
trans-Permethrine	38.89	40.57	42.42	42.80	46.52
Perthane	31.00	32.67	34.29	34.68	32.51
Phorate	19.79	21.02	22.85	22.45	22.33
Phosmet	34.73	37.24	40.83	40.91	42.38
Phosphamidon	23.56	23.40	27.79	27.72	28.85
Propachlor	17.88	19.32	21.17	21.81	21.74
Ronnel	24.58	26.14	27.95	27.55	27.10
Simazine	20.91	22.65	25.05	24.87	25.23
Stirophos	28.66	30.50	32.94	32.69	32.27
Sulfotep	19.37	20.42	22.46	22.27	22.56
TEPP	16.76	17.91	20.69	20.74	21.98
Terbufos	21.64	22.78	24.23	23.67	23.91
Terrazole	14.17	15.12	16.60	17.25	15.86
Tetrachloro-m-xylene (SS)	18.12	19.81	20.24	20.32	18.70
Thionazin	17.72	18.97	21.26	21.12	20.85
Tokuthion	29.55	31.19	32.83	32.22	31.67
Trichloronate	26.51	28.09	29.31	28.59	28.57
Trifluralin	19.30	20.35	19.98	19.47	22.15
Tri-o-cresylphosphate	36.64	38.40	40.93	40.83	42.62