



Retention time Table for Carbomix Phases

Compound	Carbomix H-NP5	Carbomix H-NP10			Carbomix Ca-NP5	Carbomix Ca-NP10			Carbomix Pb-NP5	Carbomix Pb-NP10	
	8%	5%	8%	10%	8%	5%	8%	10%	8%	5%	8%
Acetic acid	13.58	17.52	14.64	13.39	/	/	/	/	/	/	/
Adonitol	9.85	13.59	11.10	10.26	13.40	16.76	14.73	13.67	18.81	21.88	19.88
Arabinitol	10.06	13.82	11.30	10.41	15.99	19.80	17.72	16.06	23.63	27.76	24.95
D-(-)-Arabinose	9.77	13.46	10.93	10.08	12.13	13.77	13.43	12.52	14.81	17.74	15.76
L-(+)-Arabinose	9.77	13.45	10.93	10.08	12.13	15.45	13.41	12.53	14.82	17.74	15.76
1,4-Butanediol	19.52	23.11	/	19.26	14.41	17.81	15.96	14.48	15.98	17.77	16.49
n-Butanol	34.23	35.93	/	32.66	24.17	/	/	/	28.37	28.28	27.91
t-Butanol	23.19	/	/	/	15.11	/	/	/	15.96	17.80	16.60
sec-butyl alcohol	28.55	31.90	30.25	28.23	18.82	22.83	21.06	19.01	20.63	22.25	21.06
D-(+)-Cellobiose	7.79	9.79	8.18	8.17	8.42	10.10	8.81	8.96	10.30	12.27	10.89
Citric acid	8.09	10.26	8.69	8.35	/	/	/	/	/	/	/
Erythriol	10.74	14.70	11.94	11.00	14.15	17.34	15.98	14.47	18.67	21.34	19.60
Ethanol	20.24	23.13	21.82	20.72	15.48	18.30	16.38	15.89	16.32	17.69	16.79
Formic acid	12.59	16.11	13.51	12.48	/	/	/	/	/	/	/
D-Fructose	9.25	12.65	10.27	9.58	12.08	15.27	13.34	12.45	15.85	19.17	16.86
Fumaric acid	11.71	/	13.90	/	/	/	/	/	/	/	/
Galactitol	9.51	13.13	10.66	9.87	18.22	22.57	19.44	18.05	30.81	36.54	32.57
D-(+)-Galactose	9.13	12.54	10.15	9.48	10.73	13.77	11.77	11.20	13.54	16.50	14.52
D-Glucose	8.76	11.90	9.68	9.16	9.82	12.37	10.61	10.32	11.97	14.31	12.74
Glycerol	12.19	16.07	13.61	12.46	14.96	17.89	16.20	15.12	18.34	20.59	19.13
IPA	21.94	25.79	23.89	22.53	15.37	18.61	17.16	15.88	16.27	17.86	16.78
Lactic acid	11.40	15.41	12.70	11.55	/	/	/	/	/	/	/
B-Lactose	7.93	10.24	8.42	8.29	8.70	10.81	9.25	9.22	10.92	13.51	11.70
D-Lyxose	9.50	13.08	10.64	9.87	12.65	16.05	13.96	13.02	15.35	18.33	16.33
Maleic acid	8.42	9.50	8.53	8.56	/	/	/	/	/	/	/
Malic acid	9.03	12.03	9.80	9.24	/	/	/	/	/	/	/
Maltotetraose	7.42	/	/	/	7.78	/	/	/	9.40	12.11	10.31
Maltitol	8.04	10.51	8.41	8.29	10.77	14.74	11.92	11.24	16.69	22.68	18.44
D-(+)-Maltose	7.85	10.01	8.29	8.23	8.56	10.43	9.02	9.09	10.79	13.04	11.47
Maltotriose	7.54	8.94	7.70	7.90	8.08	9.40	8.33	8.57	10.23	12.49	10.87
D-Mannitol	9.40	12.99	10.53	9.79	15.54	19.57	17.34	15.60	23.24	28.05	24.89
D-(+)-Mannose	9.11	12.55	10.13	9.48	11.00	14.09	12.05	11.45	15.01	18.43	16.09
D-(+)-Melezitose	7.55	/	/	/	7.99	9.14	8.18	8.49	9.43	11.23	10.00
Methanol	17.99	20.60	19.21	18.28	15.32	17.74	16.08	15.64	15.82	17.19	16.31
Oxalic acid dihydrate	7.61	7.72	7.44	7.72	/	/	/	/	/	/	/
1-Propanol	25.83	27.83	26.56	25.16	19.08	21.58	20.44	18.95	21.40	21.48	21.21
1,2-Propylene glycol	15.43	/	/	/	16.23	/	/	/	19.68	20.88	20.10
Pyruvic acid	8.99	10.72	10.37	9.24	/	/	/	/	/	/	/
D-(-)-Ribose	9.95	13.73	11.16	10.25	19.37	24.21	20.70	19.23	29.79	35.80	31.07
D-Sorbitol	9.49	13.12	10.64	9.86	18.92	23.74	20.22	18.71	32.87	39.86	34.96
Succinic acid	10.46	14.45	11.54	10.47	/	/	/	/	/	/	/
D-(+)-Sucrose	/	/	/	/	8.49	10.31	8.93	9.03	10.34	12.38	10.97
Tartartic	8.41	10.74	8.94	8.64	/	/	/	/	/	/	/
Triethylene glycol	14.42	19.60	16.12	14.17	17.51	20.01	17.51	17.21	35.95	34.98	34.53
Xylitol	10.21	14.03	11.47	10.53	18.79	23.17	21.08	18.66	30.06	35.71	31.75
D-Xylose	9.19	12.61	10.24	9.60	10.72	13.49	11.63	11.19	12.93	15.24	13.70

Conditions:
 Carbomix H-NP10
 Mobile phase: 2.5 mM H2SO4
 Flow rate: 0.6 mL/min
 Detector: RID
 Column Tem.: 80°C
 Injection Volume: 10 µL (3 injections)

Carbomix H-NP5
 Mobile phase: 2.5 mM H2SO4
 Flow rate: 0.6 mL/min
 Detector: RID
 Column Tem.: 55°C
 Injection Volume: 10 µL (3 injections)

Carbomix Ca-NP10
 Mobile phase: H2O
 Flow rate: 0.6 mL/min
 Detector: RID
 Column Tem.: 85°C
 Injection Volume: 10 µL (3 injections)

Carbomix Ca-NP5
 Mobile phase: H2O
 Flow rate: 0.6 mL/min
 Detector: RID
 Column Tem.: 85°C
 Injection Volume: 10 µL (3 injections)

Carbomix Pb-NP10
 Mobile phase: H2O
 Flow rate: 0.6 mL/min
 Detector: RID
 Column Tem.: 75°C
 Injection Volume: 10 µL (3 injections)

Carbomix Pb-NP5
 Mobile phase: H2O
 Flow rate: 0.6 mL/min
 Detector: RID
 Column Tem.: 75°C
 Injection Volume: 10 µL (3 injections)