Table 1: Experimental Values of Enthalpy of Mixing for Ethyl Acetate (1) + Benzene (2)

x_1	$\Delta H_{m,Expt}$/ J. mol $^{-1}$	$\Delta H_{m,\ Calculated}$/ J. mol $^{-1}$	% Deviation	x_1	$\Delta H_{m,Expt}$/ J. mol $^{-1}$	$\Delta H_{m,\ Calculated}$/ J. mol $^{-1}$	% Deviation
Temperature 298.15 K							
0.0509	21.6017	21.6259	-0.1120	0.5309	104.9595	105.0328	-0.0698
0.1017	40.6771	40.6682	0.0219	0.5781	102.1298	102.1850	-0.0541
0.1338	51.4105	51.3846	0.0506	0.6252	97.4701	97.4892	-0.0196
0.1659	61.1445	61.1069	0.0615	0.6733	90.8746	90.8415	0.0363
0.2121	73.4218	73.3790	0.0584	0.7213	82.4512	82.3588	0.1121
0.2583	83.6840	83.6495	0.0413	0.7702	72.0401	71.8939	0.2029
0.3030	91.7177	91.7018	0.0173	0.8191	59.8125	59.6409	0.2869
0.3476	97.9291	97.9383	-0.0094	0.8690	45.5176	45.3799	0.3025
0.3930	102.4066	102.4430	-0.0355	0.9188	29.4161	29.4136	0.0087
0.4384	105.0615	105.1211	-0.0567	0.9594	14.9958	15.2137	-1.4532
0.4847	105.9239	105.9975	-0.0694				

Table 1: Experimental Values of Enthalpy of Mixing for Ethyl Acetate (1) + Benzene (2)

x_1	$\Delta H_{m,Expt}$/ J. mol $^{-1}$	$\Delta H_{m,\ Calculated}$/ J. mol $^{-1}$	% Deviation	x_1	$\Delta H_{m,Expt}$/ J. mol $^{-1}$	$\Delta H_{m,\ Calculated}$/ J. mol $^{-1}$	% Deviation
Temperature 308.15 K							
0.0509	27.26286	27.2576	0.0194	0.5309	119.4267	119.3933	0.0280
0.1017	50.79362	50.7877	0.0116	0.5781	114.9148	114.8755	0.0342
0.1338	63.77904	63.7792	-0.0003	0.6252	108.4332	108.3956	0.0347
0.1659	75.36046	75.3684	-0.0106	0.6733	99.91803	99.8909	0.0272
0.2121	89.63594	89.6541	-0.0203	0.7213	89.59309	89.5842	0.0100
0.2583	101.1824	101.2063	-0.0236	0.7702	77.35039	77.3646	-0.0183
0.3030	109.8477	109.8711	-0.0213	0.8191	63.48207	63.5174	-0.0557
0.3476	116.1584	116.1755	-0.0147	0.8690	47.80099	47.8454	-0.0929
0.3930	120.2591	120.2651	-0.0049	0.9188	30.69378	30.7195	-0.0839
0.4384	122.1246	122.1167	0.0065	0.9594	15.7993	15.7755	0.1505
0.4847	121.8304	121.8083	0.0181				

Table 2: Experimental Values of Enthalpy of Mixing for Ethyl Acetate (1) – Toluene (2)

x_1	$\Delta H_{m,Expt}$/ J. mol $^{-1}$	$\Delta H_{m,\ Calculated}$/ J. mol $^{-1}$	% Deviation	x_1	$\Delta H_{m,Expt}$/ J. mol $^{-1}$	$\Delta H_{m,\ Calculated}$/ J. mol $^{-1}$	% Deviation
Temperature 298.15 K							
0.0598	9.0322	8.9895	0.4729	0.5111	84.5645	84.4895	0.0886
0.1195	19.2744	19.3045	-0.1559	0.5573	88.0498	87.9761	0.0838
0.1587	26.4989	26.5515	-0.1985	0.6029	89.8047	89.7435	0.0681
0.1979	33.9540	34.0130	-0.1737	0.6485	89.6618	89.6237	0.0426
0.2462	43.2434	43.2932	-0.1150	0.6935	87.4428	87.4346	0.0094
0.2945	52.3948	52.4224	-0.0528	0.7384	82.9422	82.9664	-0.0292
0.3327	59.3481	59.3534	-0.0089	0.7827	76.0719	76.1241	-0.0686
0.3708	65.9142	65.8961	0.0276	0.8269	66.5726	66.6403	-0.1017
0.4178	73.2745	73.2297	0.0611	0.8618	57.0902	57.1543	-0.1123
0.4648	79.5970	79.5322	0.0814	0.8967	45.7418	45.7815	-0.0868
				0.9484	25.3061	25.2555	0.1998

Table 2: Experimental Values of Enthalpy of Mixing for Ethyl Acetate (1) – Toluene (2)

x_1	$\Delta H_{m,Expt}$/ J. mol $^{-1}$	$\Delta H_{m,\ Calculated}$/ J. mol $^{-1}$	% Deviation	x_1	$\Delta H_{m,Expt}$/ J. mol $^{-1}$	$\Delta H_{m,\ Calculated}$/ J. mol $^{-1}$	% Deviation
Temperature 308.15 K							
0.0598	12.4352	12.3871	0.3870	0.5573	101.6667	101.5857	0.0797
0.1195	25.5624	25.5974	-0.1370	0.6029	102.9086	102.8421	0.0646
0.1587	34.4180	34.4784	-0.1756	0.6485	102.0343	101.9937	0.0398
0.1979	43.3013	43.3687	-0.1557	0.6935	98.8860	98.8788	0.0073
0.2462	54.0769	54.1335	-0.1048	0.7384	93.2549	93.2837	-0.0309
0.2945	64.4186	64.4501	-0.0490	0.7827	85.0805	85.1402	-0.0702
0.3327	72.1077	72.1140	-0.0088	0.8269	74.0927	74.1692	-0.1032
0.3708	79.2327	79.2127	0.0253	0.8618	63.3097	63.3818	-0.1139
0.4178	87.0434	86.9937	0.0570	0.8967	50.5518	50.5964	-0.0882
0.4648	93.5593	93.4876	0.0767	0.9484	27.8359	27.7798	0.2015
0.5111	98.4724	98.3897	0.0840				

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol

Miscibility gap: No

Constant Value

Temperature 323.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
79.300	0.01640
212.600	0.04440
416.300	0.09030
592.000	0.13270
757.400	0.17610
916.500	0.22180
1096.100	0.28190
1265.300	0.35250
1398.800	0.42850
1480.000	0.50380
1520.700	0.52980
1531.200	0.55720
1529.100	0.61800
1483.300	0.68210
1391.700	0.74490
1274.000	0.79600
1148.800	0.83530
991.000	0.87260
830.700	0.90330
657.800	0.93030
479.200	0.95290
308.600	0.97170
185.000	0.98370
81.600	0.99300

(h^E - excess enthalpy, x - liquid mole fraction)

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
136.490	0.01510
501.997	0.05850
799.679	0.09820
1092.340	0.14620
1442.770	0.20940
1652.530	0.26380
1810.370	0.31130
1934.300	0.36580
2049.020	0.43310
2090.890	0.47910
2107.640	0.53230
2087.120	0.57560
2031.020	0.60460
1974.910	0.63580
1860.610	0.67510
1775.620	0.70790
1665.090	0.74410
1530.690	0.77800
1400.480	0.80890
1183.190	0.84920
963.801	0.88610
798.841	0.90980
637.649	0.93050
378.068	0.96120
109.275	0.98910

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Coca Prados J.: Propiedades Fisico - Quimicas de Mezclas Liquidas Binarias: Viscosidad y Calor de Mezcla. Thesis (1969)

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
626.764	0.09330
1166.020	0.22790
1508.920	0.29910
1779.390	0.42920
1826.280	0.48460
1831.310	0.50320
1830.890	0.50940
1756.780	0.62520
1595.170	0.72070
1363.640	0.79350
797.585	0.89440
449.662	0.94560
270.049	0.96940

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Murakami S.; Fujishiro R.: III. The Intermolecular Energy of Hydrogen Bonding between Alcohol and Several other Polar Molecules. Bull.Chem.Soc.Japan 39 (1966) 720-725

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
183.300	0.02030
757.300	0.09600
1375.900	0.20930
1776.500	0.32180
1995.200	0.43460
2047.400	0.51340
2029.300	0.57790
1993.100	0.61260
1950.700	0.63010
1913.800	0.65250
1810.300	0.69950
1660.000	0.74910
1391.200	0.81400
1052.200	0.87450
643.900	0.93090
285.000	0.97190
80.000	0.99250

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Tamura K.: Excess molar enthalpies of (butan-1-ol or 2-methylpropan-1-ol + acetonitrile), (2-methylpropan-1-ol + benzene), and (butan-1-ol or 2-methylpropan-1-ol + acetonitrile + benzene) at 298.15 K. J.Chem.Thermodyn. 20 (1988) 1101-1107

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	592-41-6	1-Hexene
2	C_2H_3N	41.053	75-05-8	Acetonitrile

Miscibility gap: No

Constant Value

Temperature	298.150	K
Pressure	6.000	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
301.275	0.04430
301.097	0.04430
451.097	0.06860
597.237	0.09450
597.821	0.09450
738.384	0.12210
863.271	0.15170
1092.710	0.21770
1258.700	0.29450
1353.350	0.38500
1378.280	0.43670
1396.230	0.49340
1402.200	0.55600
1376.550	0.62540
1287.360	0.70280
1289.330	0.70280
1109.020	0.78980
1108.320	0.78980
847.058	0.86230
564.101	0.91460
303.624	0.95620

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Gmehling J.; Meents B.: Excess Enthalpies of Ethanenitrile + 1-Alkenes (C6, C8) or + 2-Alkanones (C4, C7) and of Hexane + Nitroalkanes (C1, C2). Int.Data Series Sel.Data Mixtures Ser. A 1992 (1992) 204-209

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	592-41-6	1-Hexene
2	C_2H_3N	41.053	75-05-8	Acetonitrile

Miscibility gap: No

Constant Value

Temperature	343.150	K
Pressure	6.000	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
322.987	0.04430
323.626	0.04430
641.133	0.09450
932.990	0.15170
1206.240	0.21770
1435.050	0.29450
1606.470	0.38500
1671.440	0.49340
1574.970	0.62540
1425.460	0.70280
1151.810	0.78980
1159.240	0.78980
857.000	0.86230
583.561	0.91460

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Gmehling J.; Meents B.: Excess Enthalpies of Ethanenitrile + 1-Alkenes (C6, C8) or + 2-Alkanones (C4, C7) and of Hexane + Nitroalkanes (C1, C2). Int.Data Series Sel.Data Mixtures Ser. A 1992 (1992) 204-209

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	C_3H_8O	60.096	67-63-0	2-Propanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
542.190	0.07750
837.779	0.11820
1166.020	0.17290
1372.010	0.21360
1568.380	0.26420
1732.080	0.31460
1846.800	0.35860
1933.880	0.40620
1988.310	0.44720
2021.810	0.48960
2027.670	0.52020
2020.130	0.55240
1984.540	0.59000
1925.510	0.61530
1881.550	0.64040
1825.030	0.66750
1748.830	0.69700
1650.850	0.72930
1493.850	0.77220
1334.330	0.81200
1138.810	0.84690
949.566	0.88000
786.281	0.90530
543.865	0.93760
358.390	0.96050
132.722	0.98450

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Coca Prados J.: Propiedades Fisico - Quimicas de Mezclas Liquidas Binarias: Viscosidad y Calor de Mezcla. Thesis (1969)

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	C_3H_8O	60.096	67-63-0	2-Propanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
200.300	0.02050
486.800	0.05410
752.300	0.08980
1123.100	0.14970
1541.500	0.24060
1833.200	0.33750
1988.200	0.43390
2021.900	0.50280
2006.400	0.55260
1969.200	0.58470
1967.000	0.59490
1916.000	0.62440
1829.800	0.66830
1686.300	0.72160
1463.900	0.78200
1154.200	0.84600
843.600	0.89690
489.500	0.94480
130.100	0.98620

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Tamura K.: Excess molar enthalpies of (propan-1-ol or propan-2-ol + acetonitrile), (propan-1-ol or propan-2-ol + chlorobenzene), and (propan-1-ol or propan-2-ol + acetonitrile + chlorobenzene) at 298.15 K. J.Chem.Thermodyn. 20 (1988) 87-93

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	$C_2H_4O_2$	60.053	64-19-7	Acetic acid

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
125.800	0.11480
160.300	0.14410
234.900	0.20900
327.900	0.34760
337.700	0.39370
337.000	0.44060
327.700	0.51200
294.900	0.59490
260.600	0.67970
241.400	0.71520
192.600	0.79500
166.000	0.84280
141.600	0.87120
106.200	0.91340

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Lark B.S.; Banipal T.S.: Excess volumes and excess enthalpies of acetic and its methyl-substituted acids + acetonitrile.. Can.J.Chem. 63 (1985) 3269-3275

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	$C_2H_4O_2$	60.053	64-19-7	Acetic acid

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
96.200	0.09270
150.100	0.14090
197.300	0.20720
245.900	0.27870
267.100	0.32210
291.200	0.38100
304.700	0.44600
302.400	0.48850
284.300	0.57100
247.900	0.65140
198.300	0.74160
158.700	0.80900
112.300	0.87220
79.400	0.91500

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Letcher T.M.; Redhi G.G.: Excess Enthalpies and Volumes for Mixtures of (Acetonitrile + a Carboxylic Acid) at 298,15K. J.Chem.Eng.Data 45 (2000) 57-60

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	$C_6H_{12}O_2$	116.160	123-86-4	Acetic acid butyl ester

Miscibility gap: No

Constant Value

Temperature 321.350 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
77.414	0.10330
124.180	0.19810
194.686	0.30190
244.216	0.40430
277.543	0.51740
271.053	0.58450
226.966	0.70130
184.470	0.80090
114.007	0.90230

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Kesarwani V.S.; Chandak B.S.; Kher M.G.: Acetonitrile-Toluene Systems. Chem.Petro-Chem.J. 10 (1979) 3-8

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	$C_6H_{12}O_2$	116.160	123-86-4	Acetic acid butyl ester

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
102.577	0.10000
186.313	0.20000
251.208	0.30000
301.450	0.40000
330.757	0.50000
337.037	0.60000
314.010	0.70000
251.208	0.80000
146.538	0.90000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Mato F.; Cabezas J.L.; Coca J.: Equilibrio Liquido-Vapor Isobarico y Calor de Mezcla. Anal.Quim. 69 (1973) 123-128

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	$C_6H_{12}O_2$	116.160	123-86-4	Acetic acid butyl ester

Miscibility gap: No

Constant	Value	
Temperature	363.150	K
Pressure	18.910	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
46.466	0.03060
86.144	0.06010
163.576	0.11610
216.471	0.16820
279.255	0.21700
313.864	0.26280
359.668	0.30570
413.359	0.38410
444.063	0.45400
458.775	0.51670
458.525	0.57330
448.103	0.62450
430.628	0.67120
413.801	0.71390
380.844	0.75300
350.370	0.78910
318.566	0.82250
280.003	0.85340
238.451	0.88210
194.503	0.90890
148.572	0.93390
100.743	0.95740
51.209	0.97930
26.514	0.98980

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source
Gmehling J.: unpublished data. Unpublished Data (2011) 1-43

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	C_2H_3N	41.053	75-05-8	Acetonitrile

Miscibility gap: No

Constant Value

Temperature 318.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-22.000	0.08300
-47.000	0.15500
-57.000	0.19200
-96.000	0.36600
-99.000	0.37300
-106.000	0.46500
-108.000	0.46700
-81.000	0.75900
-41.000	0.89000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Brown I.; Fock W.: III. Acetone and Alcohol Solutions. Aust.J.Chem. 10 (1957) 417-422

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	C_2H_3N	41.053	75-05-8	Acetonitrile

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-6.800	0.01920
-19.000	0.05470
-35.200	0.10260
-47.100	0.14180
-60.200	0.18950
-71.600	0.23610
-83.100	0.29220
-92.400	0.34270
-99.100	0.39060
-105.100	0.44830
-107.900	0.50340
-108.500	0.56970
-104.200	0.64520
-97.800	0.69880
-85.100	0.76680
-72.300	0.81700
-50.400	0.88500
-30.500	0.93540
-14.100	0.97190

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Tamura K.; Tokuriki S.: Excess Enthalpies and Complex Formation of Acetonitrile with Acetone, Chloroform, and Benzene. Thermochim.Acta 47 (1981) 315-331

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_6	78.114	71-43-2	Benzene
2	C_2H_3N	41.053	75-05-8	Acetonitrile

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
167.472	0.07300
273.817	0.13360
331.594	0.17700
389.791	0.23150
435.008	0.29580
456.780	0.37130
460.548	0.45370
436.264	0.53670
394.815	0.61870
340.805	0.69440
292.239	0.76070
226.925	0.81590
180.032	0.86160
139.839	0.89650
107.601	0.92480

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Absood A.H.; Tutunji M.S.; Hsu K.-Y.; Clever H.L.: The Density and Enthalpy of Mixing of Solutions of Acetonitrile and of Dimethyl Sulfoxide with Several Aromatic Hydrocarbons.. J.Chem.Eng.Data 21 (1976) 304-308

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_6	78.114	71-43-2	Benzene
2	C_2H_3N	41.053	75-05-8	Acetonitrile

Miscibility gap: No

Constant Value

Temperature 318.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
287.000	0.13300
467.000	0.33100
475.000	0.33400
489.000	0.40800
496.000	0.41600
501.000	0.49300
398.000	0.68900
249.000	0.85000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Brown I.; Fock W.: II. Acetronitrile and Nitromethane Systems. Aust.J.Chem. 9 (1956) 180-183

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$CHCl_3$	119.377	67-66-3	Chloroform
2	C_2H_3N	41.053	75-05-8	Acetonitrile

Miscibility gap: No

Constant Value

Temperature 298.000 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-119.500	0.07310
-162.600	0.09960
-369.100	0.20510
-500.600	0.27610
-689.800	0.38840
-808.500	0.50070
-855.000	0.59430
-809.000	0.69230
-735.600	0.74440
-606.400	0.81980

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Handa Y.P.; Jones D.E.: Molar Excess Enthalpies of Acetonitrile + Chloroform and of Acetonitrile + Chloroform-D1 at 298 K. Can.J.Chem. 55 (1977) 2977-2979

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$CHCl_3$	119.377	67-66-3	Chloroform
2	C_2H_3N	41.053	75-05-8	Acetonitrile

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-24.800	0.01400
-79.300	0.04800
-197.600	0.11600
-325.100	0.18600
-438.700	0.24900
-534.700	0.30500
-612.800	0.35300
-683.100	0.40100
-759.100	0.47700
-810.300	0.55200
-821.100	0.62500
-751.400	0.72300
-607.300	0.81000
-365.600	0.90000
-115.700	0.97200

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Kawamura Y.: Excess Thermodynamic Functions and Complex Formation in Binary Liquid Mixtures Containing Acetonitrile. Fluid Phase Equilib. 3 (1979) 1-11

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	60-29-7	Diethyl ether
2	C_2H_3N	41.053	75-05-8	Acetonitrile

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]		
128.000	0.07860	397.300	0.41000
153.400	0.09620	407.200	0.43080
145.500	0.09970	404.500	0.44350
214.900	0.13780	400.400	0.45850
218.600	0.14900	414.900	0.47940
277.600	0.20300	402.300	0.48400
299.900	0.23850	400.700	0.48730
301.600	0.25590	409.800	0.49820
317.600	0.26160	393.800	0.53780
351.700	0.29930	354.300	0.60290
343.400	0.30410	375.600	0.60640
362.500	0.33410	362.600	0.61310
374.600	0.34720	337.800	0.68800
378.400	0.36070	340.200	0.69060
388.900	0.39100	289.000	0.75420
377.400	0.39220	226.100	0.81150
397.100	0.40670	227.300	0.84080
396.500	0.40890	207.900	0.84440

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Letcher T.M.; Domanska U.: The excess enthalpies of (acetonitrile + an ether) at the temperature 298.15 K. J.Chem.Thermodyn. 26 (1994) 75-84

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	C_2H_3N	41.053	75-05-8	Acetonitrile

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
374.300	0.05060
641.836	0.09090
792.142	0.12190
978.874	0.16740
1165.600	0.21810
1290.790	0.26300
1384.570	0.31040
1467.890	0.36490
1525.250	0.42440
1548.280	0.48780
1535.720	0.51470
1512.270	0.54120
1483.800	0.57070
1438.170	0.60350
1377.460	0.64040
1293.720	0.68220
1176.490	0.72600
1013.210	0.78420
836.104	0.83410
707.150	0.86150
523.350	0.90630
260.837	0.95590

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Coca Prados J.: Propiedades Fisico - Quimicas de Mezclas Liquidas Binarias: Viscosidad y Calor de Mezcla. Thesis (1969)

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	C_2H_3N	41.053	75-05-8	Acetonitrile

Miscibility gap: No

Constant Value

Temperature 293.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
413.660	0.05600
800.770	0.13100
1086.930	0.21200
1278.770	0.29600
1378.590	0.37600
1419.410	0.46700
1427.910	0.54000
1355.020	0.61300
1185.030	0.71000
869.680	0.81800
396.030	0.93100

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Vierk A.-L.: Wasser-Acetonitril, Wasser-Dioxan, Äthanol-Acetonitril und Cyclohexan-Dioxan. Z.Anorg.Allg.Chem. 261 (1950) 283-296

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	C_2H_3N	41.053	75-05-8	Acetonitrile

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
178.600	0.02300
488.400	0.06830
841.200	0.13360
1184.300	0.22530
1405.500	0.32630
1500.600	0.42880
1509.000	0.47110
1498.100	0.50620
1463.700	0.56030
1348.800	0.64410
1158.200	0.73010
884.800	0.81800
477.000	0.91520
248.600	0.95850

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Tamura K.: Excess Enthalpies of Binary and Ternary Mixtures of Acetonitrile with Methanol, Ethanol and Benzene. Fluid Phase Equilib. 24 (1985) 289-306

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate
2	C_2H_3N	41.053	75-05-8	Acetonitrile

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
18.003	0.10000
30.145	0.20000
38.519	0.30000
43.961	0.40000
45.636	0.50000
43.124	0.60000
36.844	0.70000
27.214	0.80000
14.654	0.90000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Mato F.; Cabezas J.L.; Coca J.: Equilibrio Liquido-Vapor Isobarico y Calor de Mezcla. Anal.Quim. 69 (1973) 123-128

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate
2	C_2H_3N	41.053	75-05-8	Acetonitrile

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
10.800	0.04130
20.500	0.08500
29.200	0.12870
37.000	0.17610
44.300	0.22980
49.900	0.28430
52.900	0.32500
55.200	0.37200
55.900	0.38270
56.700	0.42270
56.600	0.47820
55.000	0.53990
52.100	0.60130
47.500	0.66790
41.500	0.75270
32.900	0.80090
17.200	0.91240

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Tamura K.: Excess Enthalpies of Acetonitrile + Trichloromethane, + Ethyl Acetate, and + Methyl Acetate, and of (Acetonitrile + Trichloromethane) + Ethyl Acetate and + Methyl Acetate at 308.15 K. J.Chem.Thermodyn. 15 (1983) 721-724

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	C_2H_3N	41.053	75-05-8	Acetonitrile

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
139.600	0.02360
269.100	0.04780
391.400	0.07300
607.500	0.12610
827.500	0.19980
1020.800	0.30750
1097.100	0.43000
1068.000	0.53260
1006.600	0.60420
940.900	0.65420
761.200	0.75330
528.400	0.84700
252.200	0.93390
88.500	0.97810

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Tamura K.: Excess Enthalpies of Binary and Ternary Mixtures of Acetonitrile with Methanol, Ethanol and Benzene. Fluid Phase Equilib. 24 (1985) 289-306

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	C_2H_3N	41.053	75-05-8	Acetonitrile

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
132.500	0.02220
334.300	0.06030
553.300	0.10910
902.400	0.22040
1104.900	0.34860
1146.600	0.47360
1104.900	0.55480
1038.100	0.61880
983.300	0.65740
837.500	0.73620
642.500	0.81670
391.900	0.89880
271.400	0.93280
142.100	0.96630

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Tamura K.: Excess Enthalpies of Binary and Ternary Mixtures of Acetonitrile with Methanol, Ethanol and Benzene. Fluid Phase Equilib. 24 (1985) 289-306

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	C_2H_3N	41.053	75-05-8	Acetonitrile

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
108.019	0.01860
376.393	0.06880
496.554	0.09670
681.192	0.14750
844.059	0.20700
980.548	0.27640
1055.490	0.33470
1094.850	0.38010
1113.270	0.41970
1124.990	0.46090
1101.550	0.51740
1086.060	0.53750
1034.560	0.59320
995.621	0.62530
943.705	0.66120
888.439	0.69430
818.519	0.73100
731.015	0.77170
625.089	0.81730
509.952	0.85780
378.905	0.90250
302.706	0.92420
79.130	0.98320

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Coca Prados J.: Propiedades Fisico - Quimicas de Mezclas Liquidas Binarias: Viscosidad y Calor de Mezcla. Thesis (1969)

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	$C_4H_8O_2S$	120.172	126-33-0	Sulfolane

Miscibility gap: No

Constant Value

Temperature 303.160 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-11.600	0.13000
-12.600	0.15670
-18.400	0.29440
-17.200	0.38720
-16.500	0.41430
-15.400	0.47210
-9.900	0.60130
-2.700	0.69910
2.000	0.78650
2.200	0.81360
4.000	0.83880
4.200	0.89140
2.800	0.91840
1.700	0.94670

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Lopez A.; Pansini M.; Jannelli L.: Excess Enthalpies of Mixing Sulfolane + Acetonitrile, + Propionitrile, + Butyronitrile, + Valeronitrile at 303.16 K.. J.Chem.Eng.Data 28 (1983) 173-175

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_4H_8O	72.107	109-99-9	Tetrahydrofuran
2	C_2H_3N	41.053	75-05-8	Acetonitrile

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]	h^E [J/mol]	x_1 [mol/mol]
1.800	0.01130	98.200	0.44610
17.300	0.08470	92.900	0.49040
25.400	0.09970	87.600	0.51330
56.100	0.15400	68.500	0.57650
84.400	0.18940	55.000	0.60350
101.100	0.25030	45.300	0.65550
98.300	0.27190	33.900	0.67580
102.300	0.28850	25.100	0.70990
103.300	0.31910	16.400	0.76190
105.200	0.32820	7.500	0.81070
105.500	0.33270	2.900	0.84740
103.900	0.36940	-6.100	0.87690
102.700	0.39560	-13.400	0.90820
102.100	0.40790	-8.800	0.91960
102.200	0.41280	-8.600	0.94790
102.400	0.44130		

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Letcher T.M.; Domanska U.: The excess enthalpies of (acetonitrile + an ether) at the temperature 298.15 K. J.Chem.Thermodyn. 26 (1994) 75-84

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	H_2O	18.015	7732-18-5	Water

Miscibility gap: No

Constant Value

Temperature 278.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-28.000	0.01050
-45.000	0.02600
-32.200	0.04390
42.300	0.07810
232.600	0.14410
481.700	0.24130
781.600	0.43090
894.200	0.54720
938.000	0.62850
932.500	0.71960
789.600	0.83090
680.600	0.87180

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Morcom K.W.; Smith R.W.: Enthalpies of Mixing of Water + Methyl Cyanide. J.Chem.Thermodyn. 1 (1969) 503-505

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	H_2O	18.015	7732-18-5	Water

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-6.900	0.00810
-8.100	0.01040
-11.300	0.01680
-8.500	0.02500
4.100	0.03600
47.300	0.05660
118.400	0.08030
357.600	0.15380
587.000	0.24080
799.500	0.34540
809.500	0.35360
1029.400	0.54460
1080.300	0.63310
1065.300	0.70620
983.500	0.77730
635.800	0.89740

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Morcom K.W.; Smith R.W.: Enthalpies of Mixing of Water + Methyl Cyanide. J.Chem.Thermodyn. 1 (1969) 503-505

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	H_2O	18.015	7732-18-5	Water

Miscibility gap: No

Constant Value

Temperature 318.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
6.400	0.00820
28.600	0.02390
57.400	0.03620
227.200	0.08620
492.300	0.16210
777.500	0.26720
965.800	0.34590
1166.900	0.48300
1237.300	0.56560
1244.100	0.63730
1215.600	0.68580
1098.600	0.77860
695.000	0.89210
383.300	0.94830

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Morcom K.W.; Smith R.W.: Enthalpies of Mixing of Water + Methyl Cyanide. J.Chem.Thermodyn. 1 (1969) 503-505

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	C_8H_{10}	106.167	108-38-3	m-Xylene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
310.240	0.17000
494.040	0.33800
621.740	0.48000
669.050	0.57400
673.240	0.60800
665.700	0.65700
656.490	0.68200
650.210	0.68800
636.390	0.70800
632.210	0.71700
611.270	0.73300
581.970	0.75800
532.980	0.79200
434.590	0.84650
316.100	0.89600
180.870	0.94070

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Di Cave S.; de Santis R.; Marrelli L.: Excess Enthalpies for Mixtures of Acetonitrile and Aromatic Hydrocarbons. J.Chem.Eng.Data 25 (1980) 70-72

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	C_8H_{10}	106.167	108-38-3	m-Xylene

Miscibility gap: No

Constant Value

Temperature 314.350 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
327.410	0.12500
556.840	0.25500
697.100	0.37800
762.000	0.49000
770.370	0.53200
768.280	0.57200
759.070	0.60900
722.220	0.67800
709.660	0.69400
680.350	0.70600
615.040	0.76500
530.890	0.82050
419.520	0.87100
294.750	0.91800

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Di Cave S.; de Santis R.; Marrelli L.: Excess Enthalpies for Mixtures of Acetonitrile and Aromatic Hydrocarbons. J.Chem.Eng.Data 25 (1980) 70-72

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	C_8H_{10}	106.167	106-42-3	p-Xylene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
242.834	0.10220
317.359	0.14800
454.686	0.23830
538.841	0.30370
612.529	0.37890
665.701	0.46070
684.960	0.54470
678.680	0.62540
633.881	0.70110
562.287	0.76740
486.506	0.82250
401.514	0.86570
319.453	0.89990
190.081	0.94620

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Absood A.H.; Tutunji M.S.; Hsu K.-Y.; Clever H.L.: The Density and Enthalpy of Mixing of Solutions of Acetonitrile and of Dimethyl Sulfoxide with Several Aromatic Hydrocarbons.. J.Chem.Eng.Data 21 (1976) 304-308

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	C_8H_{10}	106.167	106-42-3	p-Xylene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
320.290	0.14600
529.630	0.29400
644.770	0.42600
687.050	0.54200
685.800	0.58500
677.420	0.62400
660.680	0.66200
636.390	0.69600
628.020	0.70200
606.250	0.72650
579.870	0.75200
532.560	0.78900
455.520	0.83600
342.480	0.88950
210.600	0.93800
63.220	0.98180

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Di Cave S.; de Santis R.; Marrelli L.: Excess Enthalpies for Mixtures of Acetonitrile and Aromatic Hydrocarbons. J.Chem.Eng.Data 25 (1980) 70-72

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_3N	41.053	75-05-8	Acetonitrile
2	C_8H_{10}	106.167	106-42-3	p-Xylene

Miscibility gap: No

Constant Value

Temperature 314.350 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
325.730	0.13500
549.310	0.27000
679.940	0.39700
729.340	0.51500
731.850	0.55800
724.320	0.59900
707.570	0.63800
686.640	0.67400
673.240	0.69200
649.790	0.71300
606.250	0.75400
522.510	0.81150
417.420	0.86450
294.330	0.91350

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Di Cave S.; de Santis R.; Marrelli L.: Excess Enthalpies for Mixtures of Acetonitrile and Aromatic Hydrocarbons. J.Chem.Eng.Data 25 (1980) 70-72

o.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol

Miscibility gap: No

Constant Value

Temperature 323.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
48.200	0.01460
120.400	0.03620
231.200	0.07050
351.400	0.11030
470.000	0.15190
595.100	0.20000
726.300	0.25710
841.400	0.31610
930.000	0.37160
995.500	0.42360
1023.300	0.44700
1060.900	0.49500
1086.500	0.55260
1088.300	0.61400
1068.900	0.66260
1028.800	0.71130
964.800	0.75950
867.200	0.80950
545.100	0.90800
283.400	0.95820
114.500	0.98450

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Villamanan M.A.; Van Ness H.C.: Excess Enthalpies of 1,2-Ethanediol + 2-Propanone or + Ethanenitrile. Int.Data Series Sel.Data Mixtures Ser. A 1984 (1984) 86-87

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
466.409	0.10030
756.136	0.15520
840.709	0.19140
1241.390	0.30630
1247.250	0.31570
1374.530	0.45250
1371.180	0.50940
1367.830	0.50960
1376.620	0.51590
1305.860	0.58790
1278.650	0.64160
1123.740	0.75140
1023.670	0.77910
682.448	0.87340
368.857	0.94010
223.575	0.96590

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Murakami S.; Fujishiro R.: III. The Intermolecular Energy of Hydrogen Bonding between Alcohol and Several other Polar Molecules. Bull.Chem.Soc.Japan 39 (1966) 720-725

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
837.780	0.20000
1091.500	0.30000
1318.840	0.39000
1341.030	0.47000
1397.140	0.51000
1412.210	0.60000
1419.740	0.64000
1183.190	0.72000
992.270	0.79000
730.600	0.86000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Paz-Andrade M.I.; Casas M.I.: Acetonia-Propanol y Acetonia-Butanol a 25 °C. Anal.Quim. 66 (1970) 709-712

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	C_6H_{12}	84.161	592-41-6	1-Hexene

Miscibility gap: No

Constant	Value	
Temperature	298.150	K
Pressure	5.000	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
295.599	0.06250
549.519	0.12180
678.256	0.15970
678.206	0.15970
671.678	0.15970
880.636	0.23190
1011.690	0.29950
1014.990	0.29950
1133.600	0.42300
1144.760	0.53280
1063.030	0.63110
1065.180	0.63110
1070.820	0.63110
925.226	0.71950
736.822	0.79960
739.216	0.79960
526.690	0.87250
524.801	0.87250
272.991	0.93900
272.385	0.93900
140.006	0.96940

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Gmehling J.; Meents B.: Excess Enthalpie sof Some Alkanone (C3 - C7) + Alkene (C6, C8). Int.Data Series Sel.Data Mixtures Ser. A 1992 (1992) 161-168

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	C_6H_{12}	84.161	592-41-6	1-Hexene

Miscibility gap: No

Constant Value

Temperature	328.180	K
Pressure	5.000	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
298.185	0.06250
559.561	0.12180
702.414	0.15970
702.240	0.15970
922.441	0.23190
1071.980	0.29950
1070.220	0.29950
1217.540	0.42300
1217.690	0.53280
1128.440	0.63110
976.336	0.71950
776.356	0.79960
551.769	0.87250
285.556	0.93900
141.065	0.97010

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Gmehling J.; Meents B.: Excess Enthalpie sof Some Alkanone (C3 - C7) + Alkene (C6, C8). Int.Data Series Sel.Data Mixtures Ser. A 1992 (1992) 161-168

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	C_3H_8O	60.096	67-63-0	2-Propanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
751.949	0.12100
1065.540	0.20000
1310.890	0.27600
1472.080	0.38700
1635.360	0.51100
1583.030	0.54900
1511.020	0.56200
1517.710	0.60200
1119.550	0.77500
766.184	0.86600
732.690	0.87200
507.021	0.91970
393.559	0.93930
383.929	0.94270
101.321	0.98570
37.556	0.99480

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Murakami S.; Amaya K.; Fujishiro R.: The Energy of Hydrogen Bonding between Alcohol and Ketone Molecules. Bull.Chem.Soc.Japan 37 (1964) 1776-1780

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	C_3H_8O	60.096	67-63-0	2-Propanol

Miscibility gap: No

Constant Value

Temperature 293.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
824.800	0.15100
988.080	0.18800
1415.140	0.33100
1494.690	0.33300
1436.070	0.33900
1611.920	0.51200
1624.480	0.51400
1515.620	0.54800
1339.780	0.69800
1323.030	0.70800
820.610	0.83900
795.490	0.84800

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Parks G.S.; Chaffee C.S.: Some Physical-Chemical Properties of Mixtures of Acetone and Iso-Propyl Alcohol. J.Phys.Chem. 31 (1927) 439-447

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	C_3H_8O	60.096	67-63-0	2-Propanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
376.300	0.05000
678.200	0.10000
931.100	0.15000
1128.500	0.20000
1292.600	0.25000
1424.900	0.30000
1519.000	0.35000
1585.900	0.40000
1620.600	0.45000
1627.000	0.50000
1602.600	0.55000
1552.300	0.60000
1475.300	0.65000
1369.400	0.70000
1233.200	0.75000
1064.500	0.80000
858.700	0.85000
619.200	0.90000
338.100	0.95000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.: Excess enthalpies for (propan-2-ol + propanone) and (propan-2-ol + propanone + benzene) at the temperature 298.15 K. J.Chem.Thermodyn. 26 (1994) 691-695

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	C_6H_6	78.114	71-43-2	Benzene

Miscibility gap: No

Constant Value

Temperature 318.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
116.000	0.15700
147.000	0.27900
159.000	0.48800
158.000	0.49300
152.000	0.59400
148.000	0.60200
145.000	0.60400
108.000	0.78800

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Brown I.; Fock W.: III. Acetone and Alcohol Solutions. Aust.J.Chem. 10 (1957) 417-422

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	$CHCl_3$	119.377	67-66-3	Chloroform

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-1246.830	0.16500
-1687.280	0.26400
-1829.210	0.31700
-1950.210	0.41000
-1955.240	0.44300
-1942.260	0.47400
-1908.340	0.51000
-1580.100	0.65500
-1022.840	0.79800
-852.432	0.83400

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Chevalier J.-L.; Bares D.: I. Chaleurs de mélange à 25 °C. J.Chim.Phys.Phys.-Chim.Biol. 66 (1969) 1448-1452

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	$CHCl_3$	119.377	67-66-3	Chloroform

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-713.000	0.09340
-1640.000	0.27240
-1968.000	0.44100
-1903.000	0.48590
-1901.000	0.51890
-1380.000	0.70440
-1085.000	0.76960
-622.000	0.87430

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Handa Y.P.; Fenby D.V.: Calorimetric Study of the Deuterium Isotope Effect in Liquid Mixtures. J.Chim.Phys.Phys.-Chim.Biol. 72 (1975) 1235-1240

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	$CHCl_3$	119.377	67-66-3	Chloroform

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-158.680	0.01920
-1573.820	0.24420
-1776.040	0.30190
-1901.220	0.35140
-1974.080	0.45240
-1921.740	0.49960
-1868.570	0.54220
-1715.330	0.60330
-1167.280	0.75190

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Hirobe H.: Thermochemical Studies. J.Fac.Sci.Univ.Tokyo Sec.1 1 (1926) 155-222

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	C_6H_{12}	84.161	110-82-7	Cyclohexane

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
947.000	0.14360
1259.000	0.22900
1467.000	0.32620
1564.000	0.42830
1571.000	0.52030
1445.000	0.64160
1192.000	0.75060
640.000	0.89220

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Handa Y.P.; Fenby D.V.: Calorimetric Study of the Deuterium Isotope Effect in Liquid Mixtures. J.Chim.Phys.Phys.-Chim.Biol. 72 (1975) 1235-1240

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	C_6H_{12}	84.161	110-82-7	Cyclohexane

Miscibility gap: No

Constant Value

Temperature	298.150	K
Pressure	1.010	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
477.000	0.06390
781.000	0.11530
1100.000	0.18320
1405.000	0.28730
1538.000	0.37750
1567.000	0.50720
1466.000	0.59870
1275.000	0.69390
1147.000	0.73880
828.000	0.83410
524.000	0.90250

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Marongiu B.: Excess Enthalpies of Some Normal Alkanones (C3 - C6) + Cyclohexane. Int.Data Series Sel.Data Mixtures Ser. A 1987 (1987) 1-6

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	60-29-7	Diethyl ether
2	C_3H_6O	58.080	67-64-1	Acetone

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
158.680	0.09230
257.907	0.17050
385.186	0.27310
505.347	0.50020
461.385	0.70570
384.767	0.79320
249.533	0.88450

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Hirobe H.: Thermochemical Studies. J.Fac.Sci.Univ.Tokyo Sec.1 1 (1926) 155-222

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	C_2H_6O	46.069	64-17-5	Ethanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
717.000	0.20900
779.000	0.24300
1017.000	0.34400
1124.000	0.45700
1141.000	0.46600
1153.000	0.49700
1112.000	0.60000
1097.000	0.64900
985.000	0.71300
858.000	0.77300

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Coomber B.A.; Wormald C.J.: The Excess Enthalpies of Acetone + Water and of Acetone + some Normal Alcohols. J.Chem.Thermodyn. 8 (1976) 793-799

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	C_2H_6O	46.069	64-17-5	Ethanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
444.219	0.10530
879.646	0.26080
1050.890	0.36750
1117.040	0.44420
1117.880	0.46000
1123.320	0.55830
1055.070	0.65960
705.476	0.82900

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Hirobe H.: Thermochemical Studies. J.Fac.Sci.Univ.Tokyo Sec.1 1 (1926) 155-222

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	C_2H_6O	46.069	64-17-5	Ethanol

Miscibility gap: No
Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
180.670	0.04180
357.170	0.08530
611.180	0.16070
879.660	0.27040
1015.550	0.35610
1098.300	0.45070
1108.170	0.47290
1110.110	0.54300
1040.480	0.64560
850.410	0.76190
583.070	0.86000
316.390	0.93170

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nicolaides G.L.; Eckert C.A.: Experimental Heats of Mixing of Some Miscible and Partially Miscible Nonelectrolyte Systems. J.Chem.Eng.Data 23 (1978) 152-156

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
93.366	0.20620
119.742	0.32370
132.722	0.50460
131.047	0.59650
123.511	0.66440
98.390	0.75350
44.799	0.91280

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Hirobe H.: Thermochemical Studies. J.Fac.Sci.Univ.Tokyo Sec.1 1 (1926) 155-222

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
68.300	0.17440
98.500	0.25500
122.200	0.34350
134.800	0.44360
133.100	0.55020
126.300	0.59770
125.700	0.60330
114.100	0.67040
98.100	0.73450
80.000	0.80120
57.800	0.86520
36.100	0.92120

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Shen S.; Wang Y.; Shi J.; Benson G.C.; Lu B.C.-Y.: Excess Enthalpies of the Systems Acetone + Ethyl Acetate and Cyclohexane + Cyclohexanone. J.Chem.Eng.Data 37 (1992) 400-402

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	C_6H_{14}	86.177	110-54-3	Hexane

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
409.887	0.05130
498.229	0.06710
572.754	0.07710
917.328	0.14660
1047.540	0.17480
1517.710	0.35870
1576.750	0.55610
1209.150	0.73570
551.401	0.89880

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Murakami S.; Amaya K.; Fujishiro R.: The Energy of Hydrogen Bonding between Alcohol and Ketone Molecules. Bull.Chem.Soc.Japan 37 (1964) 1776-1780

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	C_6H_{14}	86.177	110-54-3	Hexane

Miscibility gap: No

Constant Value

Temperature 243.200 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
334.000	0.04070
618.000	0.09320
806.000	0.13950
1048.000	0.23240
1179.000	0.33140
1232.000	0.38030
1252.000	0.43180
1267.000	0.52780
1236.000	0.60300
1112.000	0.72060
980.000	0.78720
955.000	0.79360
883.000	0.81820
718.000	0.86700
534.000	0.90870
216.000	0.96790

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Schäfer K.: Excess Enthalpies of Acetone + n-Alkane (C3 - C6) Binary Mixtures. Int.Data Series Sel.Data Mixtures Ser. A 1978 (1978) 74-77

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	C_6H_{14}	86.177	110-54-3	Hexane

Miscibility gap: No

Constant Value

Temperature 253.200 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
587.000	0.08500
934.000	0.17120
1148.000	0.25650
1301.000	0.35840
1331.000	0.42250
1357.000	0.45990
1379.000	0.49020
1326.000	0.55260
1328.000	0.56040
1316.000	0.59000
1274.000	0.63650
1261.000	0.66070
1100.000	0.74800
1093.000	0.75350
815.000	0.84500
623.000	0.89210
559.000	0.90620
223.000	0.95020

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Schäfer K.: Excess Enthalpies of Acetone + n-Alkane (C3 - C6) Binary Mixtures. Int.Data Series Sel.Data Mixtures Ser. A 1978 (1978) 74-77

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	CH_4O	32.042	67-56-1	Methanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
171.544	0.05490
292.880	0.13150
527.184	0.24020
602.496	0.29600
606.680	0.36210
698.728	0.49450
736.384	0.60090
707.096	0.63920
640.152	0.69100
493.712	0.80900
313.800	0.89070

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Campbell A.N.; Kartzmark E.M.: Thermodynamic and other Properties of Methanol + Acetone, Carbon Disulphide + Acetone, Carbon Disulphide + Methanol and Carbon Disulphide + Methanol + Acetone. J.Chem.Thermodyn. 5 (1973) 163-172

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	CH_4O	32.042	67-56-1	Methanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
257.000	0.12200
424.000	0.20500
522.000	0.28200
590.000	0.33700
664.000	0.41400
713.000	0.49600
707.000	0.57600
659.000	0.63600
628.000	0.68500
444.000	0.82600

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Coomber B.A.; Wormald C.J.: The Excess Enthalpies of Acetone + Water and of Acetone + some Normal Alcohols. J.Chem.Thermodyn. 8 (1976) 793-799

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	CH_4O	32.042	67-56-1	Methanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
149.050	0.06940
386.860	0.19340
556.007	0.31300
632.207	0.39860
635.556	0.40340
671.144	0.48370
686.635	0.57560
541.353	0.75740

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Hirobe H.: Thermochemical Studies. J.Fac.Sci.Univ.Tokyo Sec.1 1 (1926) 155-222

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	C_4H_8O	72.107	109-99-9	Tetrahydrofuran

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
93.900	0.15540
116.700	0.21630
134.800	0.26900
160.400	0.42400
160.700	0.45400
163.200	0.52470
157.700	0.59550
153.600	0.62350
141.100	0.68830
122.700	0.74650

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Marongiu B.; Delitala C.; Pittau B.; Porcedda S.: DISQUAC predictions on excess enthalpies of the ternary mixture: cyclohexane + propanone + tetrahydrofuran. Fluid Phase Equilib. 109 (1995) 67-81

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	C_4H_8O	72.107	109-99-9	Tetrahydrofuran

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
30.240	0.03210
56.970	0.06230
83.420	0.09960
147.100	0.20290
182.950	0.30150
200.100	0.40300
200.470	0.50180
173.540	0.59930
157.140	0.69570
131.680	0.79810
83.860	0.90220
64.560	0.93260
39.750	0.96510

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Devika P.D.; Ramachandran T.P.; Ananth M.S.: Enthalpy of mixing of five binary mixtures. Indian J.Technol. 30 (1992) 612-614

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	H_2O	18.015	7732-18-5	Water

Miscibility gap: No

Constant Value

Temperature 293.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-460.548	0.05600
-682.448	0.11800
-707.569	0.18700
-615.459	0.27100
-506.603	0.34800
-319.034	0.47100
254.139	0.81700
266.699	0.84900
251.208	0.88400

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Belousov V.P.; Sokolova E.P.: Mischungswärme der Flüssigkeiten. IV. Mischungswärme in binären Systemen Aceton-Wasser, Methylethylketon-Wasser und Cyclohexan-Wasser. Vestn.Leningr.Univ.Fiz.Khim. 16 (1966) 90-93

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	H_2O	18.015	7732-18-5	Water

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-343.736	0.05200
-384.767	0.07100
-531.723	0.13600
-535.910	0.15100
-527.537	0.19900
-473.108	0.25100
-477.295	0.25300
-344.573	0.33100
-212.689	0.40400
-8.374	0.51900
122.255	0.58400
329.920	0.73000
375.137	0.78200
370.113	0.81700

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Belousov V.P.; Sokolova E.P.: Mischungswärme der Flüssigkeiten. IV. Mischungswärme in binären Systemen Aceton-Wasser, Methylethylketon-Wasser und Cyclohexan-Wasser. Vestn.Leningr.Univ.Fiz.Khim. 16 (1966) 90-93

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	H_2O	18.015	7732-18-5	Water

Miscibility gap: No

Constant Value

Temperature 323.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-284.702	0.05700
-357.552	0.09800
-399.421	0.13500
-375.137	0.18600
-286.377	0.26400
-146.538	0.33200
159.517	0.50900
331.594	0.63700
456.361	0.71300
464.735	0.81300

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Belousov V.P.; Sokolova E.P.: Mischungswärme der Flüssigkeiten. IV. Mischungswärme in binären Systemen Aceton-Wasser, Methylethylketon-Wasser und Cyclohexan-Wasser. Vestn.Leningr.Univ.Fiz.Khim. 16 (1966) 90-93

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_6O	58.080	67-64-1	Acetone
2	C_8H_{10}	106.167	106-42-3	p-Xylene

Miscibility gap: No

Constant Value

Temperature	298.150	K
Pressure	1.010	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
84.100	0.04980
106.600	0.06530
184.600	0.12250
240.600	0.17310
280.900	0.21830
337.000	0.29520
365.600	0.35830
387.300	0.45580
387.300	0.52750
363.100	0.62620
315.600	0.71530
276.400	0.77010
216.300	0.83400
126.800	0.90950
64.500	0.95260

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Francesconi R.; Comelli F.: Excess Enthalpies for Binary Mixtures of Toluene, p-Xylene or Pseudocumene + Methyl-N-Alkyl Ketones. Application of an Extended Cell Model. Thermochim.Acta 216 (1993) 35-44

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	71-36-3	1-Butanol
2	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
305.000	0.11900
446.000	0.20200
512.000	0.23600
570.000	0.28200
615.000	0.29850
651.000	0.32350
664.000	0.34270
680.000	0.35100
701.000	0.36650
719.000	0.41200
751.000	0.41800
762.000	0.44350
748.000	0.45400
774.000	0.46350
763.000	0.51600
754.000	0.54390
747.000	0.56400
680.000	0.66000
515.000	0.74840
357.000	0.82000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Jimenez E.; Paz-Andrade M.I.; Casanova C.: Enthalpies and Volumes of Mixing of 1,2-Ethanediol - n-Alkanol Systems. J.Chim.Phys.Phys.-Chim.Biol. 76 (1979) 46-50

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	71-36-3	1-Butanol
2	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
101.520	0.03140
194.890	0.06380
284.180	0.09740
358.570	0.13250
429.370	0.16920
488.890	0.20740
554.380	0.24730
599.330	0.28910
644.870	0.33290
681.060	0.37880
710.110	0.42700
732.520	0.47760
740.030	0.53090
736.890	0.58710
718.450	0.64630
675.150	0.70880
603.080	0.77500
482.240	0.84520
296.080	0.91970

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagashima A.; Yoshii S.; Matsuda H.; Ochi K.: Measurement and Correlation of Excess Molar Enthalpies for Ethylene Glycol + Alkanol Systems at the Temperatures (298.15, 308.15, and 323.15) K. J.Chem.Eng.Data 49 (2004) 286-290

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	71-36-3	1-Butanol
2	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
108.840	0.03140
203.050	0.06380
299.300	0.09740
382.120	0.13250
452.020	0.16920
519.150	0.20740
579.640	0.24730
637.570	0.28910
682.860	0.33290
720.770	0.37890
752.340	0.42700
773.060	0.47770
783.530	0.53090
780.130	0.58710
757.880	0.64630
714.200	0.70880
634.830	0.77500
511.620	0.84520
311.810	0.91970

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagashima A.; Yoshii S.; Matsuda H.; Ochi K.: Measurement and Correlation of Excess Molar Enthalpies for Ethylene Glycol + Alkanol Systems at the Temperatures (298.15, 308.15, and 323.15) K. J.Chem.Eng.Data 49 (2004) 286-290

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_8O	60.096	67-63-0	2-Propanol
2	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
77.340	0.03720
150.760	0.07520
218.840	0.11430
283.450	0.15450
341.050	0.19580
397.860	0.23830
446.270	0.28220
493.080	0.32730
530.810	0.37380
561.910	0.42180
585.300	0.47130
601.070	0.52240
607.690	0.57520
600.330	0.62980
578.220	0.68620
535.060	0.74450
469.050	0.80490
366.600	0.86740
217.830	0.93220

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagashima A.; Yoshii S.; Matsuda H.; Ochi K.: Measurement and Correlation of Excess Molar Enthalpies for Ethylene Glycol + Alkanol Systems at the Temperatures (298.15, 308.15, and 323.15) K. J.Chem.Eng.Data 49 (2004) 286-290

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_8O	60.096	67-63-0	2-Propanol
2	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
78.510	0.03690
153.090	0.07480
220.660	0.11370
285.190	0.15380
346.590	0.19510
401.090	0.23760
449.360	0.28140
495.540	0.32650
533.160	0.37300
563.820	0.41100
588.010	0.47060
602.570	0.52170
607.270	0.57460
600.710	0.62920
576.600	0.68570
535.010	0.74420
466.940	0.80470
365.600	0.86750
211.690	0.93250

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagashima A.; Yoshii S.; Matsuda H.; Ochi K.: Measurement and Correlation of Excess Molar Enthalpies for Ethylene Glycol + Alkanol Systems at the Temperatures (298.15, 308.15, and 323.15) K. J.Chem.Eng.Data 49 (2004) 286-290

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_8O	60.096	67-63-0	2-Propanol
2	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol

Miscibility gap: No

Constant Value

Temperature 323.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
79.270	0.03720
150.480	0.07520
218.480	0.11420
281.660	0.15440
341.230	0.19580
392.710	0.23830
440.950	0.28220
484.630	0.32730
517.900	0.37390
549.290	0.42190
570.750	0.47140
583.760	0.52250
584.530	0.57530
578.890	0.62980
549.830	0.68620
508.060	0.74450
437.980	0.80490
340.850	0.86740
196.200	0.93220

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagashima A.; Yoshii S.; Matsuda H.; Ochi K.: Measurement and Correlation of Excess Molar Enthalpies for Ethylene Glycol + Alkanol Systems at the Temperatures (298.15, 308.15, and 323.15) K. J.Chem.Eng.Data 49 (2004) 286-290

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_2H_4O_2$	60.053	64-19-7	Acetic acid
2	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
6.620	0.04890
4.150	0.09800
-2.040	0.14720
-11.300	0.19640
-24.900	0.24580
-35.000	0.29530
-45.900	0.34490
-56.000	0.39460
-61.700	0.44440
-63.300	0.49440
-57.000	0.54440
-44.600	0.59460
-26.000	0.64490
1.340	0.69530
27.900	0.74580
57.900	0.79640
82.100	0.84710
93.800	0.89800
77.000	0.94890

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Schmid B.; Döker M.; Gmehling J.: Measurement of the thermodynamic properties for the reactive system ethylene glycol-acetic acid. Fluid Phase Equilib. 258 (2007) 115-124

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_2H_4O_2$	60.053	64-19-7	Acetic acid
2	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol

Miscibility gap: No

Constant Value

Temperature 323.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
20.300	0.04900
29.300	0.09800
26.400	0.14720
21.700	0.19650
12.700	0.24590
7.200	0.29540
-0.860	0.34500
-6.300	0.39470
-9.600	0.44450
-7.000	0.49450
-1.100	0.54450
11.800	0.59470
30.700	0.64500
52.600	0.69530
79.200	0.74580
102.000	0.79640
121.000	0.84720
124.000	0.89800
94.200	0.94890

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Schmid B.; Döker M.; Gmehling J.: Measurement of the thermodynamic properties for the reactive system ethylene glycol-acetic acid. Fluid Phase Equilib. 258 (2007) 115-124

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol

Miscibility gap: No

Constant Value

Temperature 321.350 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
144.449	0.10510
236.709	0.20060
320.060	0.30300
367.103	0.40170
389.418	0.50200
376.368	0.58380
327.948	0.69980
243.835	0.80040
145.382	0.90080

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Thorat R.T.; Nageshwar G.D.; Mene P.S.: Binary System, Ethanol Ethylene Glycol. Indian Chem.Eng. 20 (1978) 37-41

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate
2	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol

Miscibility gap: No

Constant Value

Temperature 321.350 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
90.260	0.10300
164.960	0.20000
199.290	0.29000
217.580	0.38100
225.720	0.50100
216.010	0.60300
188.450	0.70100
144.910	0.80100
74.750	0.93300

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Thorat R.T.; Nageshwar G.D.: Ethyl Acetate-Ethylene Glycol. Indian Chem.Eng. 30 (1988) 50-54

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
53.000	0.26400
70.000	0.32100
80.000	0.37000
89.000	0.43000
93.000	0.47150
96.000	0.51810
99.000	0.54810
97.000	0.57310
101.000	0.62900
102.000	0.65500
97.000	0.72620
89.000	0.77570
88.000	0.78030
76.000	0.82700
66.000	0.84600
43.000	0.91500

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Jimenez E.; Paz-Andrade M.I.; Casanova C.: Enthalpies and Volumes of Mixing of 1,2-Ethanediol - n-Alkanol Systems. J.Chim.Phys.Phys.-Chim.Biol. 76 (1979) 46-50

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol

Miscibility gap: No

Constant Value

Temperature	285.650	K
Pressure	1.010	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
12.000	0.05000
31.000	0.10000
48.000	0.15000
60.000	0.20000
75.000	0.25000
85.000	0.30000
94.000	0.35000
103.000	0.40000
110.000	0.45000
113.000	0.50000
114.000	0.55000
114.000	0.60000
110.000	0.65000
101.000	0.70000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Kracht C.; Ulbig P.; Schulz S.: Molar excess enthalpies of binary mixtures of the three glycols ethanediol, 1,2-propanediol and 1,2-butanediol with methanol or ethanol. Thermochim.Acta 337 (1999) 209-217

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol

Miscibility gap: No

Constant Value

Temperature	285.650	K
Pressure	1.010	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
64.000	0.05000
114.000	0.10000
154.000	0.15000
185.000	0.20000
387.000	0.55000
387.000	0.60000
377.000	0.65000
359.000	0.70000
324.000	0.75000
283.000	0.80000
223.000	0.85000
169.000	0.90000
89.000	0.95000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Kracht C.; Ulbig P.; Schulz S.: Molar excess enthalpies of binary mixtures of the three glycols ethanediol, 1,2-propanediol and 1,2-butanediol with methanol or ethanol. Thermochim.Acta 337 (1999) 209-217

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol

Miscibility gap: No

Constant Value

Temperature	298.150	K
Pressure	1.010	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
12.000	0.05000
48.000	0.15000
60.000	0.20000
75.000	0.25000
89.000	0.30000
100.000	0.35000
108.000	0.40000
118.000	0.45000
123.000	0.50000
124.000	0.55000
124.000	0.60000
121.000	0.65000
115.000	0.70000
106.000	0.75000
94.000	0.80000
77.000	0.85000
58.000	0.90000
32.000	0.95000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Kracht C.; Ulbig P.; Schulz S.: Molar excess enthalpies of binary mixtures of the three glycols ethanediol, 1,2-propanediol and 1,2-butanediol with methanol or ethanol. Thermochim.Acta 337 (1999) 209-217

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol
2	C_5H_9NO	99.133	872-50-4	N-Methyl-2-pyrrolidone

Miscibility gap: No

Constant Value

Temperature	363.150	K
Pressure	10.660	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
-127.685	0.04250
-246.681	0.08360
-428.282	0.16150
-562.616	0.23420
-640.542	0.30230
-684.446	0.36610
-700.743	0.42620
-689.634	0.48270
-665.384	0.53600
-593.277	0.63410
-433.272	0.76290
-372.441	0.80170
-310.128	0.83870
-248.674	0.87390
-188.033	0.90760
-127.196	0.93970
-63.822	0.97050
-31.262	0.98540

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source
de Haan A.B.: . Unpublished Data (1996) 0

No.	Formula	Molar Mass	CAS Registry Number	Name
1	H_2O	18.015	7732-18-5	Water
2	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-241.788	0.15200
-428.728	0.27400
-544.954	0.38200
-766.101	0.60700
-722.642	0.67400
-562.287	0.86100
-344.741	0.93900

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Könnecke H.-G.; Steinert H.; Leibnitz E.: Über die Mischungswärmen binärer flüssiger Systeme am Beispiel Benzol/Glykole und Wasser/Glykole. Z.Phys.Chem.(Leipzig) 208 (1957) 147-156

No.	Formula	Molar Mass	CAS Registry Number	Name
1	H_2O	18.015	7732-18-5	Water
2	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-197.198	0.15200
-376.393	0.27400
-540.641	0.38200
-668.757	0.60700
-686.635	0.67400
-555.630	0.86100
-342.606	0.93900

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Könnecke H.-G.; Steinert H.; Leibnitz E.: Über die Mischungswärmen binärer flüssiger Systeme am Beispiel Benzol/Glykole und Wasser/Glykole. Z.Phys.Chem.(Leipzig) 208 (1957) 147-156

No.	Formula	Molar Mass	CAS Registry Number	Name
1	H_2O	18.015	7732-18-5	Water
2	$C_2H_6O_2$	62.068	107-21-1	1,2-Ethanediol

Miscibility gap: No

Constant Value

Temperature 318.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-174.171	0.15200
-324.058	0.27400
-449.788	0.38200
-627.559	0.60700
-657.327	0.67400
-516.860	0.86100
-280.306	0.93900

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Könnecke H.-G.; Steinert H.; Leibnitz E.: Über die Mischungswärmen binärer flüssiger Systeme am Beispiel Benzol/Glykole und Wasser/Glykole. Z.Phys.Chem.(Leipzig) 208 (1957) 147-156

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
7.000	0.04840
21.800	0.16010
36.400	0.29980
45.300	0.42700
46.300	0.44740
47.700	0.48180
48.900	0.52530
48.700	0.53410
49.300	0.58640
48.400	0.61250
47.500	0.66260
46.200	0.67330
43.000	0.73750
34.700	0.81800
24.200	0.88810
14.100	0.94010

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Pope A.E.; Pflug H.D.; Dacre B.; Benson G.C.: Molar Excess Enthalpies of Binary n-Alcohol Systems at 25 °C. Can.J.Chem. 45 (1967) 2665-2674

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	592-41-6	1-Hexene
2	C_2H_6O	46.069	64-17-5	Ethanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
167.100	0.11200
332.300	0.24170
414.700	0.31960
521.300	0.44660
575.600	0.54210
616.100	0.65560
613.100	0.71320
585.900	0.77980
550.200	0.82730
480.100	0.86550

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Letcher T.M.; Schoonbaert F.E.Z.; Mercer-Chalmers J.; Prasad A.K.: Excess Enthalpies and Volumes of Binary Mixtures of 1-Alkenes with Methanol and with Ethanol. Thermochim.Acta 171 (1990) 147-152

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	592-41-6	1-Hexene
2	C_2H_6O	46.069	64-17-5	Ethanol

Miscibility gap: No

Constant	Value	
Temperature	363.130	K
Pressure	25.500	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
130.997	0.02420
267.580	0.04970
265.095	0.04970
402.866	0.07670
539.353	0.10520
679.498	0.13560
819.221	0.16780
965.027	0.20210
1108.790	0.23880
1245.410	0.27790
1399.200	0.31990
1394.740	0.31990
1394.820	0.31990
1517.620	0.36510
1650.680	0.41370
1763.820	0.46630
1867.160	0.52330
1941.430	0.58530
1976.270	0.65300
1942.640	0.72720
1787.500	0.80890
1792.140	0.80890
1363.990	0.89940
1361.190	0.89940
879.168	0.94830

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source
Gmehling J.: unpublished data. Unpublished Data (2011) 1-43

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	C_3H_8O	60.096	67-63-0	2-Propanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-11.700	0.05440
-24.000	0.12470
-34.100	0.19640
-45.700	0.31040
-50.100	0.40810
-50.200	0.48860
-49.300	0.53270
-49.400	0.54200
-46.600	0.59850
-40.200	0.68610
-30.700	0.78250
-17.700	0.88400
-8.600	0.94470

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Haase R.; Tillmann W.: Mixing Properties of the Liquid System Ethanol + 2-Propanol. Z.Phys.Chem.(München) 196 (1996) 271-274

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	C_3H_8O	60.096	67-63-0	2-Propanol

Miscibility gap: No

Constant Value

Temperature	298.150	K
Pressure	1.010	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
-10.200	0.05000
-19.300	0.10000
-26.100	0.15000
-32.700	0.20000
-36.800	0.25000
-40.500	0.30000
-43.000	0.35000
-44.500	0.40000
-45.200	0.45000
-45.300	0.50000
-44.800	0.55000
-43.300	0.60000
-40.200	0.65000
-36.600	0.70000
-32.400	0.75000
-27.000	0.80000
-21.300	0.85000
-14.900	0.90000
-8.000	0.95000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Tamura K.; Miyai K.: Excess molar enthalpies hE of ternary mixtures of (methanol + ethanol + 1-propanol or 2-propanol) at 298.15 K. Fluid Phase Equilib. 149 (1998) 147-161

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	$C_2H_4O_2$	60.053	64-19-7	Acetic acid

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
99.860	0.02880
186.270	0.06550
244.020	0.10420
308.250	0.14260
336.550	0.18440
352.950	0.23810
350.730	0.30420
302.900	0.41030
239.780	0.50850
156.210	0.60800
80.960	0.71230
44.620	0.81200
23.020	0.88640
10.840	0.94230

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Zhao J.; Bao J.; Hu Y.: Excess molar enthalpies of (an alkanol + a carboxylic acid) at 298.15 K measured with a Picker calorimeter. J.Chem.Thermodyn. 21 (1989) 811-818

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	$C_2H_4O_2$	60.053	64-19-7	Acetic acid

Miscibility gap: No

Constant Value

Temperature	323.150	K
Pressure	15.480	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
45.100	0.02470
84.400	0.04930
145.000	0.09870
196.000	0.17290
215.000	0.24730
212.000	0.34670
182.000	0.44640
148.000	0.54640
111.000	0.64670
80.300	0.74730
60.800	0.82290
38.900	0.89870
21.100	0.94930
11.700	0.97460

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Brandt S.; Horstmann S.; Steinigeweg S.; Gmehling J.: Part II. Ethyl acetate synthesis. Fluid Phase Equilib. 376 (2014) 48-54

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	$C_6H_{12}O_2$	116.160	123-86-4	Acetic acid butyl ester

Miscibility gap: No

Constant Value

Temperature	298.150	K
Pressure	1.010	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
635.900	0.12660
1013.600	0.24260
1243.500	0.34780
1337.000	0.43870
1339.300	0.51540
1291.600	0.58030
1217.600	0.63410
1133.200	0.67870
1030.700	0.71550
921.000	0.75570
793.400	0.79590
660.700	0.83610
516.400	0.87580
380.600	0.91260
260.300	0.94210
126.100	0.97360

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Ortega J.: Excess Enthalpy of Alcohols + Esters. Int.Data Series Sel.Data Mixtures Ser. A 23 (1995) 154-183

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_6H_{12}O_2$	116.160	123-86-4	Acetic acid butyl ester
2	C_2H_6O	46.069	64-17-5	Ethanol

Miscibility gap: No

Constant Value

Temperature	298.150	K
Pressure	1.0132	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
441.400	0.10490
772.900	0.20390
1033.700	0.30130
1210.500	0.40240
1306.100	0.50930
1311.700	0.60140
1184.000	0.70690
936.100	0.80510
566.900	0.90080

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Khanlarzadeh K.; Iloukhani H.: Measurement and Correlation of Excess Molar Enthalpy of Binary Mixtures Containing Butyl Acetate + 1-Alkanols (C1-C6) at 298.15 K. J.Solution Chem. 43 (2014) 1259-1269

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	C_6H_6	78.114	71-43-2	Benzene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
510.000	0.05700
715.000	0.13000
725.000	0.13000
845.000	0.26900
855.000	0.27800
870.000	0.33500
710.000	0.54100
690.000	0.56000
635.000	0.59600
630.000	0.60900
555.000	0.65800
540.000	0.66000
220.000	0.86500

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Brown I.; Fock W.: IV. Systems of n-Alcohols with Benzene at 25, 35, and 45° C. Aust.J.Chem. 14 (1961) 387-396

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	C_6H_6	78.114	71-43-2	Benzene

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
905.000	0.16200
880.000	0.16400
1005.000	0.29700
1005.000	0.33500
995.000	0.34300
820.000	0.55200
810.000	0.55200
800.000	0.57100
705.000	0.63600
680.000	0.64900
295.000	0.85900

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Brown I.; Fock W.: IV. Systems of n-Alcohols with Benzene at 25, 35, and 45° C. Aust.J.Chem. 14 (1961) 387-396

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	C_6H_6	78.114	71-43-2	Benzene

Miscibility gap: No

Constant Value

Temperature 318.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
970.000	0.14600
1130.000	0.29400
925.000	0.56700
930.000	0.56900
945.000	0.57100
815.000	0.63700
420.000	0.82200

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Brown I.; Fock W.: IV. Systems of n-Alcohols with Benzene at 25, 35, and 45° C. Aust.J.Chem. 14 (1961) 387-396

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$CHCl_3$	119.377	67-66-3	Chloroform
2	C_2H_6O	46.069	64-17-5	Ethanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-507.859	0.12160
-644.348	0.17640
-624.670	0.31750
-489.018	0.37760
-246.602	0.47700
-8.792	0.57160
364.670	0.74700
457.198	0.83500
386.860	0.94120

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Hirobe H.: Thermochemical Studies. J.Fac.Sci.Univ.Tokyo Sec.1 1 (1926) 155-222

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$CHCl_3$	119.377	67-66-3	Chloroform
2	C_2H_6O	46.069	64-17-5	Ethanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]	h^E [J/mol]	x_1 [mol/mol]
-45.100	0.00810	29.600	0.60540
-106.700	0.01980	115.900	0.64700
-257.400	0.05150	232.100	0.71030
-369.200	0.08020	302.200	0.75580
-532.100	0.13860	353.400	0.80370
-605.700	0.18990	371.400	0.83170
-622.600	0.22930	377.800	0.85750
-613.500	0.26380	377.600	0.87670
-595.200	0.29010	360.300	0.90700
-526.700	0.34590	342.100	0.92140
-420.300	0.40400	317.900	0.93740
-276.900	0.46930	247.000	0.95900
-185.300	0.50980	161.700	0.97660
-70.900	0.55940	80.700	0.98950
-13.400	0.58540		

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Kawamura Y.; Asano H.; Fujiwara K.; Ogasawara Y.: Excess Enthalpies for Binary Mixtures of Chloroform with Alcohols. Z.Phys.Chem.(Leipzig) 259 (1978) 1109-1116

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$CHCl_3$	119.377	67-66-3	Chloroform
2	C_2H_6O	46.069	64-17-5	Ethanol

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]	h^E [J/mol]	x_1 [mol/mol]
-83.000	0.01780	382.400	0.64570
-162.800	0.03680	431.000	0.67190
-239.100	0.05770	469.000	0.69430
-301.500	0.07800	511.600	0.72260
-364.100	0.10290	542.700	0.74670
-419.800	0.13400	564.600	0.76720
-453.900	0.17000	580.300	0.78630
-461.000	0.20160	590.100	0.80240
-449.600	0.23240	595.400	0.81740
-438.700	0.24930	595.200	0.82530
-405.500	0.27910	592.100	0.84620
-363.500	0.30760	584.300	0.86040
-322.500	0.33100	573.200	0.87300
-280.500	0.35270	559.200	0.88460
-210.900	0.38560	494.800	0.91780
-167.500	0.40490	389.800	0.94620
-67.100	0.44810	304.700	0.96190
49.500	0.49680	155.100	0.98280
46.800	0.53740		
138.000	0.57730		

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Kawamura Y.; Asano H.; Fujiwara K.; Ogasawara Y.: Excess Enthalpies for Binary Mixtures of Chloroform with Alcohols. Z.Phys.Chem.(Leipzig) 259 (1978) 1109-1116

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	C_6H_{12}	84.161	110-82-7	Cyclohexane

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
421.192	0.08700
457.617	0.10560
571.498	0.17560
625.089	0.25360
637.231	0.30610
643.092	0.31220
655.234	0.37580
652.722	0.45510
612.947	0.56110
543.447	0.68120
469.759	0.75060
416.586	0.80290
289.308	0.88910
271.723	0.89160
154.074	0.94310

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Goates J.R.; Snow R.L.; James M.R.: Application of Quasi-Lattice Theory to Heats of Mixing in some Alcohol-Hydrocarbon Systems. J.Phys.Chem. 65 (1961) 335-336

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	C_6H_{12}	84.161	110-82-7	Cyclohexane

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
274.500	0.03520
426.000	0.10270
537.500	0.18960
607.100	0.28790
627.100	0.33810
638.300	0.38830
642.200	0.43550
638.400	0.48230
629.000	0.52670
614.500	0.56840
538.300	0.68650
520.000	0.70660
494.300	0.73240
464.600	0.75990
426.700	0.78980
384.500	0.81960
316.400	0.86110
239.700	0.90150
154.600	0.94070
60.300	0.97790

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Kazuma K.: Heats of Mixing for the Ternary System Ethanol-1-Propanol-Cyclohexane at 25° C. J.Chem.Eng.Data 22 (1977) 79-84

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	60-29-7	Diethyl ether
2	C_2H_6O	46.069	64-17-5	Ethanol

Miscibility gap: No

Constant Value

Temperature 290.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
59.453	0.05000
96.296	0.08000
177.939	0.15000
394.815	0.40000
439.614	0.46000
502.416	0.58000
510.790	0.62400
514.976	0.65000
514.976	0.71000
445.894	0.79300
443.801	0.81000
309.823	0.89900

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Calvet E.: Sur le Mechanisme de la Dissolution. Etude au Microcalorimetre. Mem.Services Chim.Etat.(Paris) 32 (1945) 168-219

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate
2	C_2H_6O	46.069	64-17-5	Ethanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
198.000	0.04150
234.000	0.04960
444.000	0.10000
534.000	0.12510
700.000	0.17490
707.000	0.17720
887.000	0.24150
905.000	0.24880
1021.000	0.30000
1158.000	0.37740
1219.000	0.42490
1228.000	0.43290
1280.000	0.49960
1295.000	0.55130
1227.000	0.67570
1104.000	0.74860
973.000	0.79980
713.000	0.87250
462.000	0.92510
303.000	0.95300
203.000	0.96980
136.000	0.98010

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Grolier J.-P.E.: Excess Enthalpy. Int.Data Series Sel.Data Mixtures Ser. A 1973 (1973) 17-20

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	60-29-7	Diethyl ether
2	C_2H_6O	46.069	64-17-5	Ethanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
40.193	0.03050
254.557	0.16200
433.752	0.28090
477.714	0.33250
568.986	0.41110
677.424	0.56210
667.794	0.72440
382.255	0.91180

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Hirobe H.: Thermochemical Studies. J.Fac.Sci.Univ.Tokyo Sec.1 1 (1926) 155-222

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate
2	C_2H_6O	46.069	64-17-5	Ethanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
224.600	0.03630
488.000	0.09090
747.300	0.15130
966.000	0.21540
1114.900	0.27180
1250.600	0.33100
1359.000	0.40350
1404.800	0.46450
1425.200	0.52080
1417.600	0.59550
1329.700	0.67550
1178.400	0.75710
956.300	0.82260
496.500	0.92370

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Murti P.S.; van Winkle M.: Heats of Mixing and Excess Thermodynamic Properties at 25 °C. of Binary Systems of Methanol, Ethyl Alcohol, 1-Propanol, and 2-Propanol with Ethyl Acetate. Ind.Eng.Chem. Chem.Eng.Data Series 3 (1958) 65-71

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{14}	86.177	110-54-3	Hexane
2	C_2H_6O	46.069	64-17-5	Ethanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
253.000	0.13150
443.000	0.29910
448.000	0.30140
445.000	0.30160
453.000	0.31580
457.000	0.31810
569.000	0.56040
569.000	0.56280
572.000	0.57260
573.000	0.58660
552.000	0.74540
553.000	0.74880
545.000	0.76080
471.000	0.86060

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Brown I.; Fock W.; Smith F.: V. Systems of n-Alcohols with n-Hexane. Aust.J.Chem. 17 (1964) 1106-1118

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{14}	86.177	110-54-3	Hexane
2	C_2H_6O	46.069	64-17-5	Ethanol

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
296.000	0.13530
516.000	0.29930
533.000	0.31740
536.000	0.31930
683.000	0.56090
688.000	0.58780
676.000	0.74600
583.000	0.86090
475.000	0.92620

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Brown I.; Fock W.; Smith F.: V. Systems of n-Alcohols with n-Hexane. Aust.J.Chem. 17 (1964) 1106-1118

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{14}	86.177	110-54-3	Hexane
2	C_2H_6O	46.069	64-17-5	Ethanol

Miscibility gap: No

Constant Value

Temperature 318.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
337.000	0.13540
606.000	0.29940
629.000	0.31800
826.000	0.55960
833.000	0.58670
827.000	0.74500
813.000	0.76310
719.000	0.86010

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Brown I.; Fock W.; Smith F.: V. Systems of n-Alcohols with n-Hexane. Aust.J.Chem. 17 (1964) 1106-1118

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	C_2H_6O	46.069	64-17-5	Ethanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
0.900	0.07340
1.700	0.14600
2.500	0.23480
3.200	0.31670
3.900	0.39740
4.400	0.47120
4.600	0.53940
4.700	0.60020
4.600	0.65190
4.400	0.69650
3.500	0.79980
2.700	0.85350
1.900	0.90490
1.200	0.94650
0.600	0.97560

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Pflug H.D.; Pope A.E.; Benson G.C.: Heats of Mixing of Normal Alcohols at 25 °C. J.Chem.Eng.Data 13 (1968) 408-410

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	$C_4H_8O_2S$	120.172	126-33-0	Sulfolane

Miscibility gap: No

Constant Value

Temperature 303.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
602.899	0.09500
979.711	0.15000
1243.480	0.20200
1875.690	0.39600
1984.540	0.54800
1838.010	0.66300
1657.970	0.75300
1009.020	0.90100
573.592	0.94900

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Tommila E.; Lindell E.; Virtalaine M.-L.; Laakso R.: Densities, Viscosities, Surface Tensions, Dielectric Constants, Vapour Pressures, Activities, and Heats of Mixing of Sulpholane-Water, Sulpholane-Methanol, and Sulpholane-Ethanol Mixtures. Suom.Kemistil. 42 (1969) 95-104

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_4H_8O	72.107	109-99-9	Tetrahydrofuran
2	C_2H_6O	46.069	64-17-5	Ethanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
257.200	0.09950
381.200	0.15290
490.300	0.20850
593.500	0.26650
681.300	0.32710
738.600	0.37420
783.500	0.42300
816.100	0.47340
835.200	0.52560
836.500	0.57960
820.500	0.63560
783.300	0.69360
713.100	0.75380
604.200	0.81630
504.500	0.85930
385.400	0.90340

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Chao J.P.; Dai M.: Excess enthalpies of (an alkan-1-ol + tetrahydrofuran or cyclohexanone) at 298.15 K. J.Chem.Thermodyn. 21 (1989) 977-983

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_4H_8O	72.107	109-99-9	Tetrahydrofuran
2	C_2H_6O	46.069	64-17-5	Ethanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
94.100	0.03820
177.900	0.07390
189.400	0.07750
282.100	0.11810
349.200	0.15210
412.600	0.18130
507.400	0.23530
558.000	0.26620
642.800	0.32370
738.900	0.41790
779.200	0.47450
796.300	0.51850
799.200	0.55100
785.400	0.62620
696.000	0.74170
632.900	0.78900
593.200	0.81400
531.600	0.83940
468.800	0.86600
413.400	0.89040
357.000	0.90980
334.800	0.91720
290.000	0.92950
235.200	0.94430
181.100	0.95940
127.900	0.97190
95.200	0.97960
51.000	0.98980

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Conti G.; Gianni P.; Matteoli E.: Excess enthalpies and excess heat capacities of the ternary system ethanol + tetrahydrofuran + cyclohexane at 298.15 K. Thermochim.Acta 247 (1994) 293-313

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	H_2O	18.015	7732-18-5	Water

Miscibility gap: No

Constant Value

Temperature 273.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-59.871	0.00410
-93.366	0.00670
-119.324	0.00880
-121.417	0.00880
-198.036	0.01440
-569.405	0.04520
-916.909	0.08680
-1101.130	0.16100
-1076.010	0.19600
-1009.020	0.20600
-703.382	0.48900
-456.361	0.66300
-373.044	0.74500
-204.316	0.88600
-185.475	0.90100
-123.511	0.94300
-55.684	0.97200

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Belousov V.P.; Makarova I.L.: VIII. Mischungswärme in binären Systemen Ethanol-Wasser, Dioxan-Wasser und Dioxan-Ethanol. Vestn.Leningr.Univ.Fiz.Khim. (1970) 101-107

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	H_2O	18.015	7732-18-5	Water

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-31.987	0.00320
-47.311	0.00420
-64.058	0.00660
-142.351	0.01450
-154.493	0.01580
-258.744	0.02760
-368.020	0.04050
-378.487	0.04110
-415.749	0.04680
-502.416	0.05940
-640.580	0.09000
-715.943	0.13900
-782.931	0.15700
-753.624	0.18200
-741.063	0.19100
-556.844	0.36200
-514.976	0.40500
-443.801	0.46400
-415.330	0.50100
-400.258	0.51900
-389.372	0.52500
-303.961	0.64200
-213.527	0.78300
-131.884	0.89000
-104.670	0.92700
-83.317	0.94400
-54.010	0.96500

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Belousov V.P.; Makarova I.L.: VIII. Mischungswärme in binären Systemen Ethanol-Wasser, Dioxan-Wasser und Dioxan-Ethanol. Vestn.Leningr.Univ.Fiz.Khim. (1970) 101-107

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	C_8H_{10}	106.167	108-38-3	m-Xylene

Miscibility gap: No

Constant Value

Temperature 298.200 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
531.700	0.07940
661.400	0.11040
780.400	0.16360
849.400	0.24310
850.300	0.28140
849.900	0.31780
818.700	0.41970
775.900	0.47790
757.900	0.51030
696.200	0.57510
658.400	0.60490
545.800	0.70320
405.100	0.79210
287.500	0.85980
157.800	0.92230

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Letcher T.M.; Prasad A.K.; Schoonbaert F.E.Z.; Mercer-Chalmers J.: Excess enthalpies of (a xylene + an alkanol) at 298.2 K. J.Chem.Thermodyn. 22 (1990) 765-770

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_2H_6O	46.069	64-17-5	Ethanol
2	C_8H_{10}	106.167	106-42-3	p-Xylene

Miscibility gap: No

Constant	Value	
Temperature	298.150	K
Pressure	1.700	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
649.100	0.09870
734.400	0.14430
747.000	0.14620
751.300	0.14680
784.000	0.18750
792.100	0.19400
816.100	0.22210
818.700	0.22380
813.400	0.22870
833.700	0.25750
828.700	0.26790
834.800	0.29050
833.300	0.30530
831.400	0.31430
831.400	0.33040
833.600	0.33130
828.800	0.34100
832.900	0.34630
828.700	0.36490
818.400	0.37510
804.300	0.40770
812.700	0.40950
802.800	0.41760
742.700	0.48830
625.800	0.60040
513.400	0.68440
466.600	0.72450
403.600	0.76340
346.500	0.79840
290.600	0.83330
185.800	0.89080

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Christensen J.J.; Rossiter B.E.; O'Neill T.K.; Hanks R.W.: The Excess Enthalpies of Six p-Xylene + Alcohol Mixtures at 298.15 K. J.Chem.Thermodyn. 10 (1978) 829-833

No.	Formula	Molar Mass	CAS Registry Number	Name

1	C_2H_6O	46.069	64-17-5	Ethanol
2	C_8H_{10}	106.167	106-42-3	p-Xylene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
156.600	0.01120
433.100	0.04340
511.300	0.06030
724.900	0.14660
803.400	0.23250
814.100	0.34910
753.600	0.46510
684.500	0.54400
577.400	0.63800
563.300	0.65090
484.500	0.70890
401.800	0.76410
314.900	0.81840
224.400	0.87240
139.100	0.92160
51.100	0.97120

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Ogasawara Y.: Prediction of Ternary Excess Enthalpies from Binary Data.. Thermochim.Acta 52 (1982) 155-168

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	60-29-7	Diethyl ether
2	$CHCl_3$	119.377	67-66-3	Chloroform

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-1029.000	0.12740
-2129.000	0.30060
-2547.000	0.40160
-2634.000	0.46220
-2609.000	0.52910
-2513.000	0.59100
-2108.000	0.69460
-1201.000	0.85130

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Beath L.A.; Williamson A.G.: I. Enthalpies of Mixing of Ethers with Carbon Tetrachloride and with Chloroform. J.Chem.Thermodyn. 1 (1969) 51-57

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	60-29-7	Diethyl ether
2	$CHCl_3$	119.377	67-66-3	Chloroform

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]	h^E [J/mol]	x_1 [mol/mol]
-219.807	0.02500	-2717.650	0.52500
-439.614	0.05000	-2687.090	0.55000
-653.141	0.07500	-2637.260	0.57500
-857.038	0.10000	-2572.370	0.60000
-1057.580	0.12500	-2493.660	0.62500
-1248.500	0.15000	-2399.450	0.65000
-1433.140	0.17500	-2294.370	0.67500
-1608.990	0.20000	-2174.200	0.70000
-1773.530	0.22500	-2041.480	0.72500
-1923.830	0.25000	-1897.460	0.75000
-2068.700	0.27500	-1744.220	0.77500
-2200.160	0.30000	-1581.350	0.80000
-2319.490	0.32500	-1411.370	0.82500
-2423.740	0.35000	-1230.080	0.85000
-2515.010	0.37500	-1041.680	0.87500
-2589.120	0.40000	-846.571	0.90000
-2645.220	0.42500	-645.186	0.92500
-2696.300	0.45000	-435.427	0.95000
-2727.280	0.47500	-220.226	0.97500
-2732.300	0.50000		

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Becker F.; Kiefer M.: III. Äther-Chloroform-Systeme. Z.Naturforsch.A 26 (1971) 1040-1046

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	60-29-7	Diethyl ether
2	C_6H_{12}	84.161	110-82-7	Cyclohexane

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
159.098	0.09190
213.527	0.12480
263.768	0.16650
305.636	0.19450
360.065	0.25070
393.559	0.29780
422.867	0.34880
431.240	0.40100
427.053	0.40320
435.427	0.45410
439.614	0.49960
435.427	0.55100
410.306	0.60130
385.186	0.65180
343.317	0.70160
309.823	0.74990
259.582	0.80200
205.153	0.84990
138.164	0.90050
66.989	0.95050

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Arm H.; Bankay D.; Strub K.; Waelti M.: Dampfdrücke, thermodynamische Mischungsfunktionen und Brechungsindices des binären Systems Cyclohexan-Diäthyläther bei 25°. Helv.Chim.Acta 50 (1967) 1013-1016

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	60-29-7	Diethyl ether
2	C_6H_{12}	84.161	110-82-7	Cyclohexane

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
190.000	0.11020
295.000	0.18750
376.000	0.28000
424.000	0.39970
433.000	0.50330
411.000	0.59120
366.000	0.67940
263.000	0.79180
200.000	0.85060

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Marongiu B.; Dernini S.; Lepori L.; Matteoli E.; Kehiaian H.V.: 1. Excess Enthalpies of Linear Ethers or Acetals + Heptane or + Cyclohexane Mixtures. J.Chem.Eng.Data 33 (1988) 118-122

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	60-29-7	Diethyl ether
2	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
139.002	0.15810
199.710	0.27440
250.789	0.41850
256.232	0.51970
256.232	0.54400
254.976	0.56280
200.129	0.77310
91.272	0.91250

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Hirobe H.: Thermochemical Studies. J.Fac.Sci.Univ.Tokyo Sec.1 1 (1926) 155-222

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	60-29-7	Diethyl ether
2	$C_{16}H_{34}$	226.446	544-76-3	Hexadecane

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
103.000	0.05000
197.200	0.10000
280.100	0.14990
347.800	0.19950
416.100	0.25030
476.500	0.29990
519.500	0.35020
561.000	0.39970
593.200	0.45040
611.400	0.49980
615.900	0.49990
622.300	0.54920
618.700	0.59970
620.000	0.60000
605.900	0.64990
608.400	0.65020
578.000	0.69960
576.900	0.69970
534.500	0.74970
531.200	0.75000
469.700	0.79990
472.200	0.80000
391.600	0.85010
293.200	0.90000
163.500	0.95000
84.000	0.97600

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Luo B.; Benson G.C.; Lu B.C.-Y.: Excess enthalpies for (diethyl ether + n-alkane) at 298.15 K. J.Chem.Thermodyn. 20 (1988) 267-271

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	60-29-7	Diethyl ether
2	CH_4O	32.042	67-56-1	Methanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
5.500	0.01020
9.600	0.02380
13.800	0.04770
19.800	0.06310
66.600	0.10760
132.400	0.15840
189.500	0.21700
266.600	0.28550
344.300	0.36650
418.400	0.46370
478.100	0.58260
490.800	0.66520
461.900	0.76690
415.200	0.83690
320.000	0.90630
170.700	0.96940

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Villamanan M.A.; Casanova C.; Roux A.H.; Grolier J.-P.E.: Calorimetric Investigation of the Interactions between Oxygen and Hydroxyl Groups in (Alcohol + Ether) at 298.15 K.. J.Chem.Thermodyn. 14 (1982) 251-258

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	60-29-7	Diethyl ether
2	C_4H_8O	72.107	109-99-9	Tetrahydrofuran

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
46.055	0.07900
92.110	0.22500
92.110	0.23520
108.857	0.29520
104.670	0.29800
125.604	0.45560
125.604	0.48320
125.604	0.60740
96.296	0.71960
71.176	0.80400
79.549	0.81180
66.989	0.84800
50.242	0.88550

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Arm H.; Bankay D.; Schaller R.; Waelti M.: Systeme Tetrahydrofuran-Diäthyläther und Methanol-Tetrahydrofuran bei 25°. Helv.Chim.Acta 49 (1966) 2598-2605

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
289.730	0.04370
622.160	0.10010
674.070	0.11110
1108.250	0.21120
1301.680	0.25770
1568.380	0.40570
1665.510	0.48920
1639.130	0.60780
1502.640	0.69380
1167.280	0.81620
737.710	0.90140
450.080	0.94500
256.650	0.96980

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Nagashima M.; Kazuma K.; Nagagawa M.: Heats of Mixing for Binary Systems and Data Reduction Based on a Triplet Model of Guggenheim. J.Chem.Eng.Japan 8 (1975) 261-265

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
356.300	0.05380
400.680	0.05900
678.680	0.10930
1120.390	0.20940
1395.460	0.31160
1418.910	0.31390
1606.890	0.41480
1719.100	0.52180
1721.190	0.52370
1702.350	0.57800
1629.500	0.64920
1414.720	0.74780
1188.210	0.81360
1183.610	0.81630
701.710	0.90720
386.020	0.95320
377.230	0.95420
379.740	0.95490

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Nagashima M.; Kazuma K.; Nagagawa M.: Heats of Mixing for Binary Systems and Data Reduction Based on a Triplet Model of Guggenheim. J.Chem.Eng.Japan 8 (1975) 261-265

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	592-41-6	1-Hexene
2	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate

Miscibility gap: No

Constant Value		
Temperature	298.060	K
Pressure	6.000	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
99.793	0.02980
254.077	0.08040
368.934	0.12190
469.947	0.16440
471.734	0.16440
565.179	0.20780
639.424	0.25220
764.758	0.34410
836.902	0.44040
847.736	0.54140
786.554	0.64740
741.491	0.70250
645.263	0.75890
532.346	0.81680
473.057	0.84640
389.070	0.87630
389.132	0.87630
303.844	0.90660
157.652	0.95280

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Gmehling J.; Meents B.: Excess Enthalpies of Some Alkyl Ethanoates (C4, C6, C8) + 1-Hexene or + 1-Octene Mixtures. Int.Data Series Sel.Data Mixtures Ser. A 1992 (1992) 169-176

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	592-41-6	1-Hexene
2	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate

Miscibility gap: No

Constant Value

Temperature	343.150	K
Pressure	6.000	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
92.590	0.02940
246.396	0.07950
356.505	0.12070
457.420	0.16280
551.695	0.20590
626.460	0.25000
757.250	0.34140
822.462	0.43750
818.338	0.53840
743.692	0.64470
672.583	0.70000
566.979	0.75670
440.247	0.81510
366.173	0.84480
289.476	0.87500
288.256	0.87500
214.339	0.90560
96.454	0.95230

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Gmehling J.; Meents B.: Excess Enthalpies of Some Alkyl Ethanoates (C4, C6, C8) + 1-Hexene or + 1-Octene Mixtures. Int.Data Series Sel.Data Mixtures Ser. A 1992 (1992) 169-176

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate
2	C_3H_8O	60.096	67-63-0	2-Propanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
361.100	0.05160
752.900	0.11970
1082.300	0.19700
1388.400	0.29030
1622.700	0.38830
1672.700	0.44200
1706.200	0.51800
1704.800	0.57610
1668.000	0.63180
1534.700	0.70800
1343.700	0.77030
976.000	0.85680
504.600	0.93330

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Murti P.S.; van Winkle M.: Heats of Mixing and Excess Thermodynamic Properties at 25 °C. of Binary Systems of Methanol, Ethyl Alcohol, 1-Propanol, and 2-Propanol with Ethyl Acetate. Ind.Eng.Chem. Chem.Eng.Data Series 3 (1958) 65-71

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate
2	C_3H_8O	60.096	67-63-0	2-Propanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
350.020	0.04980
687.470	0.10630
989.340	0.16600
1262.320	0.23710
1453.240	0.29930
1500.550	0.31820
1701.100	0.42770
1722.450	0.44070
1769.340	0.55300
1505.570	0.72360
1080.610	0.83680
681.610	0.90650
472.690	0.93750
280.100	0.96460

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Yamada T.; Nakagawa S.: Excess Gibbs Free Energies and Heats of Mixing for Binary Systems Ethyl Acetate with Methanol, Ethanol, 1-Propanol and 2-Propanol. J.Chem.Eng.Data 20 (1975) 271-275

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate
2	$C_2H_4O_2$	60.053	64-19-7	Acetic acid

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-9.000	0.02380
-16.000	0.04640
-22.000	0.06800
-26.000	0.08870
-30.000	0.16300
-26.000	0.22600
-18.000	0.28020
1.000	0.36870
25.000	0.46700
43.000	0.53880
64.000	0.63670
74.000	0.70030
81.000	0.77800
81.000	0.82370
75.000	0.87520
54.000	0.93340

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Francesconi R.; Comelli F.: Excess molar enthalpies of binary mixtures containing acetic or propionic acid + eight ethyl alkanoates at 298.15 K. Thermochim.Acta 322 (1998) 63-68

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate
2	$C_2H_4O_2$	60.053	64-19-7	Acetic acid

Miscibility gap: No

Constant Value

Temperature	323.150	K
Pressure	15.480	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
-7.400	0.01480
-14.800	0.03000
-26.600	0.06130
-38.700	0.11080
-43.700	0.16370
-39.400	0.24030
-26.400	0.32460
-5.500	0.41790
21.900	0.52170
53.900	0.63790
73.000	0.73470
78.600	0.84090
63.800	0.91780
44.000	0.95820

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Brandt S.; Horstmann S.; Steinigeweg S.; Gmehling J.: Part II. Ethyl acetate synthesis. Fluid Phase Equilib. 376 (2014) 48-54

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate
2	$C_6H_{12}O_2$	116.160	123-86-4	Acetic acid butyl ester

Miscibility gap: No

Constant Value

Temperature	298.000	K
Pressure	1.000	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
23.200	0.09910
43.700	0.19820
59.400	0.29930
70.000	0.39930
76.000	0.49820
74.700	0.59940
67.000	0.69850
52.400	0.79880
30.000	0.89950

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Laavi H.; Pokki J.-P.; Uusi-Kyyny P.; Massimi A.; Kim Y.; Sapei E.; Alopaeus V.: Vapor–Liquid Equilibrium at 350 K, Excess Molar Enthalpies at 298 K, and Excess Molar Volumes at 298 K of Binary Mixtures Containing Ethyl Acetate, Butyl Acetate, and 2-Butanol. J.Chem.Eng.Data 58 (2013) 1011-1019

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate
2	C_6H_6	78.114	71-43-2	Benzene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
26.800	0.08330
36.000	0.11120
46.400	0.13830
50.200	0.16560
53.500	0.19290
64.800	0.19930
68.200	0.24910
82.400	0.28270
85.300	0.36840
87.400	0.45880
77.800	0.54730
68.200	0.74300
67.400	0.77320
59.400	0.80120
54.000	0.83740
50.200	0.86580
36.000	0.89840
26.400	0.93190
18.400	0.94860

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Grolier J.-P.E.; Ballet D.; Viallard A.: Thermodynamics of Ester-Containing Mixtures. Excess Enthalpies and Excess Volumes for Alkyl Acetates and Alkyl Benzoates + Alkanes, + Benzene, + Toluene, and + Ethylbenzene. J.Chem.Thermodyn. 6 (1974) 895-908

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate
2	C_6H_6	78.114	71-43-2	Benzene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
32.657	0.09430
61.546	0.24790
90.854	0.36940
97.971	0.50650
93.784	0.63240
74.902	0.79760
40.403	0.87600

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Hirobe H.: Thermochemical Studies. J.Fac.Sci.Univ.Tokyo Sec.1 1 (1926) 155-222

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$CHCl_3$	119.377	67-66-3	Chloroform
2	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-1109.080	0.21450
-1749.240	0.37660
-1967.380	0.45810
-2035.200	0.58500
-1985.800	0.62550
-1841.350	0.69550
-1778.550	0.71580
-721.385	0.91020

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Hirobe H.: Thermochemical Studies. J.Fac.Sci.Univ.Tokyo Sec.1 1 (1926) 155-222

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$CHCl_3$	119.377	67-66-3	Chloroform
2	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-121.100	0.02400
-391.400	0.07700
-778.900	0.15600
-1147.200	0.23800
-1460.000	0.31700
-1698.400	0.39100
-1833.800	0.44600
-1902.100	0.48600
-1957.900	0.55000
-1898.200	0.62400
-1781.700	0.68200
-1569.100	0.74800
-1245.600	0.81800
-1027.300	0.85800
-633.100	0.91700
-176.300	0.97700

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Ohta T.; Asano H.; Nagata I.: Thermodynamic Study of Complex Formation in Four Binary Liquid Mixtures Containing Chloroform. Fluid Phase Equilib. 4 (1980) 105-114

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate
2	C_6H_{12}	84.161	110-82-7	Cyclohexane

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]	h^E [J/mol]	x_1 [mol/mol]
221.000	0.03260	1189.000	0.29360
303.000	0.04590	1199.000	0.30040
366.000	0.05650	1225.000	0.31870
424.000	0.06670	1241.000	0.33100
535.000	0.08780	1261.000	0.35020
714.000	0.12610	1275.000	0.36710
794.000	0.14570	1032.000	0.71360
814.000	0.15090	1003.000	0.72780
820.000	0.15250	963.000	0.74510
879.000	0.16890	907.000	0.76810
961.000	0.19410	836.000	0.79460
979.000	0.20030	690.000	0.84220
1009.000	0.21070	661.000	0.85060
1064.000	0.23160	572.000	0.87550
1065.000	0.23200	539.000	0.88420
1102.000	0.24810	426.000	0.91250
1137.000	0.26450	331.000	0.93410

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Grolier J.-P.E.: Excess Enthalpy. Int.Data Series Sel.Data Mixtures Ser. A 1973 (1973) 105-114

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate
2	C_6H_{12}	84.161	110-82-7	Cyclohexane

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
287.550	0.04610
645.190	0.10400
854.940	0.14330
1123.740	0.20560
1280.320	0.27390
1402.580	0.32290
1455.330	0.35710
1539.900	0.40470
1338.940	0.75870
1230.080	0.78570
972.590	0.84410
653.560	0.90490
208.540	0.97360

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Ratnam A.V.; Rao C.V.; Murti P.S.: Systems: benzene-cyclohexane-ethyl acetate and the three related binaries. Chem.Eng.Sci. 17 (1962) 392-396

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate
2	C_6H_{12}	84.161	110-82-7	Cyclohexane

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
314.600	0.04640
692.800	0.12070
992.700	0.20300
1206.900	0.29150
1331.600	0.38350
1367.500	0.46830
1367.800	0.48980
1360.800	0.50610
1341.900	0.54340
1295.100	0.59220
1156.100	0.67860
978.700	0.75350
793.200	0.80490
569.800	0.87580
306.300	0.93770

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Tamura K.: Excess molar enthalpies of (ethanol + tetrachloromethane) and (ethyl ethanoate + cyclohexane), and of (ethanol + benzene + tetrachloromethane) and (ethanol + ethyl ethanoate + cyclohexane) at 298.15 K. J.Chem.Thermodyn. 16 (1984) 975-980

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	60-29-7	Diethyl ether
2	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
139.002	0.15810
199.710	0.27440
250.789	0.41850
256.232	0.51970
256.232	0.54400
254.976	0.56280
200.129	0.77310
91.272	0.91250

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Hirobe H.: Thermochemical Studies. J.Fac.Sci.Univ.Tokyo Sec.1 1 (1926) 155-222

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{14}	86.177	110-54-3	Hexane
2	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
149.400	0.02840
233.500	0.04500
318.400	0.06260
452.700	0.09220
579.500	0.12200
785.700	0.18110
876.000	0.21650
1046.400	0.29390
1221.700	0.41260
1272.300	0.59260
1145.200	0.69580
1066.100	0.73030
924.200	0.78980
840.600	0.82030
718.400	0.85050
615.000	0.88020
486.200	0.90960

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Grolier J.-P.E.; Ballet D.; Viallard A.: Thermodynamics of Ester-Containing Mixtures. Excess Enthalpies and Excess Volumes for Alkyl Acetates and Alkyl Benzoates + Alkanes, + Benzene, + Toluene, and + Ethylbenzene. J.Chem.Thermodyn. 6 (1974) 895-908

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{14}	86.177	110-54-3	Hexane
2	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate

Miscibility gap: No
Constant Value

Temperature 303.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
441.000	0.09010
569.000	0.12690
913.000	0.22320
1142.000	0.35790
1279.000	0.55070
1218.000	0.63610
1147.000	0.69550
941.000	0.78220
790.000	0.83330
727.000	0.85770
588.000	0.88430
535.000	0.90570

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Otin S.; Tomas G.; Peiro J.M.; Velasco I.; Gutierrez Losa C.: Thermodynamic Properties of Organic Oxygen Compounds. Excess Enthalpies for some Ester + Hexane or + 1-Bromohexane, and Bromoester + Hexane Mixtures. J.Chem.Thermodyn. 12 (1980) 955-960

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{14}	86.177	110-54-3	Hexane
2	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
452.000	0.09390
609.000	0.13400
740.000	0.17180
839.000	0.20410
929.000	0.23720
1024.000	0.27750
1098.000	0.31470
1218.000	0.63930
1191.000	0.66160
1102.000	0.71590
1022.000	0.75310
896.000	0.80030
731.000	0.85020
499.000	0.90680
484.000	0.91010
405.000	0.92690
277.000	0.95190

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Grolier J.-P.E.: Excess Enthalpy. Int.Data Series Sel.Data Mixtures Ser. A 1973 (1973) 105-114

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
260.000	0.04980
360.000	0.07300
472.000	0.10230
572.000	0.13760
611.000	0.14780
790.000	0.21670
835.000	0.25710
891.000	0.29170
906.000	0.30700
924.000	0.33000
957.000	0.41450
953.000	0.44100
939.000	0.46420
933.000	0.48580
926.000	0.50580
894.000	0.55690
776.000	0.65050
706.000	0.69850
565.000	0.78570
521.000	0.79970
456.000	0.83090
409.000	0.85020
362.000	0.86990
339.000	0.88190
290.000	0.90020
234.000	0.92160
186.000	0.93980
97.000	0.97000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Grolier J.-P.E.: Excess Enthalpy. Int.Data Series Sel.Data Mixtures Ser. A 1973 (1973) 17-20

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
370.200	0.06780
500.500	0.10250
742.000	0.16800
853.800	0.22460
995.200	0.32110
1053.900	0.40750
1042.400	0.49410
977.100	0.56980
889.400	0.65300
660.400	0.74010
577.100	0.78050
444.300	0.83710
286.900	0.89900
159.900	0.94380
65.900	0.97960

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Murti P.S.; van Winkle M.: Heats of Mixing and Excess Thermodynamic Properties at 25 °C. of Binary Systems of Methanol, Ethyl Alcohol, 1-Propanol, and 2-Propanol with Ethyl Acetate. Ind.Eng.Chem. Chem.Eng.Data Series 3 (1958) 65-71

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
75.780	0.01230
281.770	0.05240
527.120	0.11500
672.820	0.17060
942.870	0.30420
1014.040	0.38460
1058.000	0.48530
978.870	0.59300
774.560	0.70190
555.170	0.80670
296.840	0.90260
210.180	0.93450
128.950	0.96170

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Yamada T.; Nakagawa S.: Excess Gibbs Free Energies and Heats of Mixing for Binary Systems Ethyl Acetate with Methanol, Ethanol, 1-Propanol and 2-Propanol. J.Chem.Eng.Data 20 (1975) 271-275

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate
2	C_8H_{10}	106.167	106-42-3	p-Xylene

Miscibility gap: No

Constant Value

Temperature	343.150	K
Pressure	6.000	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
46.560	0.06250
86.326	0.12330
120.625	0.18260
148.888	0.24040
186.983	0.35170
207.291	0.45770
209.133	0.55870
194.781	0.65500
165.299	0.74710
124.033	0.83510
97.419	0.87760
68.063	0.91930
67.723	0.91930
35.437	0.96010

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Gmehling J.; Meents B.: Excess Enthalpies of Some Alkyl Ethanoates (C4, C6, C8) + Toluene or + 1,4-Dimethylbenzene Mixtures. Int.Data Series Sel.Data Mixtures Ser. A 1992 (1992) 177-184

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_8O_2$	88.106	141-78-6	Ethyl acetate
2	C_8H_{10}	106.167	106-42-3	p-Xylene

Miscibility gap: No

Constant Value

Temperature	298.150	K
Pressure	6.000	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
40.982	0.06250
75.040	0.12330
107.299	0.18260
133.391	0.24040
169.963	0.35170
191.001	0.45770
194.258	0.55870
182.343	0.65500
155.752	0.74710
117.275	0.83510
92.586	0.87760
64.731	0.91930
64.782	0.91930
33.708	0.96010

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Gmehling J.; Meents B.: Excess Enthalpies of Some Alkyl Ethanoates (C4, C6, C8) + Toluene or + 1,4-Dimethylbenzene Mixtures. Int.Data Series Sel.Data Mixtures Ser. A 1992 (1992) 177-184

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	592-41-6	1-Hexene
2	C_6H_6	78.114	71-43-2	Benzene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
276.600	0.11160
398.300	0.17910
493.100	0.25590
556.000	0.33020
588.900	0.40920
591.500	0.49500
558.400	0.58420
489.000	0.68680
374.500	0.78840
283.100	0.85370

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Karbalai Ghassemi M.H.; Grolier J.-P.E.: Excess Enthalpy. Int.Data Series Sel.Data Mixtures Ser. A 1975 (1975) 186-190

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	592-41-6	1-Hexene
2	C_6H_6	78.114	71-43-2	Benzene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
340.700	0.16210
414.400	0.21350
431.500	0.22810
500.700	0.35050
515.300	0.38850
533.600	0.47970
533.100	0.50800
528.000	0.53370
526.700	0.53790
524.200	0.54060
497.500	0.61980
389.800	0.73100
353.600	0.75920
331.400	0.77670

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Letcher T.M.; Sack J.: The Excess Enthalpy of Mixing of Some Hydrocarbon Mixtures. J.S.Afr.Chem.Inst. 28 (1975) 316-320

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	592-41-6	1-Hexene
2	C_6H_6	78.114	71-43-2	Benzene

Miscibility gap: No

Constant Value

Temperature	363.130	K
Pressure	24.120	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
74.754	0.03640
144.772	0.07380
213.829	0.11230
272.476	0.15200
369.617	0.23500
435.676	0.32330
468.619	0.41750
468.086	0.41750
462.303	0.51810
415.640	0.62580
380.504	0.68260
326.189	0.74140
264.082	0.80240
180.553	0.86580
95.243	0.93160

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source
Gmehling J.: unpublished data. Unpublished Data (2011) 1-43

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_6	78.114	71-43-2	Benzene
2	C_3H_8O	60.096	67-63-0	2-Propanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
232.200	0.06320
518.800	0.14510
789.900	0.23460
986.200	0.31290
1110.400	0.37340
1186.600	0.41920
1234.300	0.45090
1281.100	0.49330
1319.200	0.55110
1328.400	0.61800
1287.400	0.69410
1201.600	0.76140
1071.100	0.82220
906.300	0.87730
687.400	0.92900
418.400	0.96690
161.100	0.98890

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Asano H.; Fujiwara K.: Excess Enthalpies for Systems of 2-Propanol-Benzene-Methylcyclohexane. Fluid Phase Equilib. 1 (1977) 211-217

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_6	78.114	71-43-2	Benzene
2	C_3H_8O	60.096	67-63-0	2-Propanol

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
92.200	0.02130
284.500	0.06680
511.400	0.12370
735.800	0.18560
925.200	0.24400
1100.500	0.30690
1225.400	0.36060
1319.500	0.40990
1408.000	0.47900
1454.900	0.53490
1473.400	0.60360
1431.300	0.68690
1294.300	0.77880
1064.000	0.86150
766.500	0.92450
436.800	0.96640
153.800	0.98930

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Asano H.; Fujiwara K.: Excess Enthalpies for Systems of 2-Propanol-Benzene-Methylcyclohexane. Fluid Phase Equilib. 1 (1977) 211-217

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_6	78.114	71-43-2	Benzene
2	$C_2H_4O_2$	60.053	64-19-7	Acetic acid

Miscibility gap: No

Constant Value

Temperature 293.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
217.714	0.08200
293.076	0.13800
343.317	0.19600
368.438	0.25800
389.372	0.42100
360.065	0.59800
343.317	0.62400
276.329	0.71100
284.702	0.75500
96.296	0.92000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Liszi J.: Study of Thermodynamic Properties of Binary Mixtures containing Acetic Acid. Acta Chim.Acad.Sci.Hung. 66 (1970) 411-430

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_6	78.114	71-43-2	Benzene
2	$C_2H_4O_2$	60.053	64-19-7	Acetic acid

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
31.400	0.01940
50.660	0.03340
118.490	0.09160
130.630	0.10340
190.080	0.17690
259.580	0.29780
286.380	0.40620
285.960	0.50810
266.280	0.62060
231.950	0.70610
182.540	0.80640
119.320	0.90260
117.230	0.90680
86.250	0.94710
66.990	0.96480

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Nagashima M.; Kazuma K.; Nagagawa M.: Heats of Mixing for Binary Systems and Data Reduction Based on a Triplet Model of Guggenheim. J.Chem.Eng.Japan 8 (1975) 261-265

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_6	78.114	71-43-2	Benzene
2	$C_6H_{12}O_2$	116.160	123-86-4	Acetic acid butyl ester

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-20.400	0.12860
-24.500	0.22860
-26.000	0.27210
-27.400	0.34010
-26.400	0.43810
-24.500	0.50420
-22.700	0.54250
-20.900	0.59710
-14.000	0.74770
-7.500	0.87310

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Maken S.; Deshwal B.R.; Chadha R.; Anu; Singh K.C.; Kim H.; Park J.-W.: Molar Excess Volumes and Molar Excess Enthalpies. Fluid Phase Equilib. 235 (2005) 42-49

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$CHCl_3$	119.377	67-66-3	Chloroform
2	C_6H_6	78.114	71-43-2	Benzene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-55.400	0.04520
-106.200	0.08730
-197.400	0.17010
-234.200	0.20610
-275.200	0.24550
-321.200	0.30300
-357.100	0.35900
-383.700	0.41220
-407.400	0.49020
-415.200	0.55840
-413.800	0.56200
-404.700	0.61910
-385.200	0.67290
-354.700	0.72360
-321.400	0.76750
-276.000	0.81440
-216.800	0.86420
-185.100	0.88700
-151.900	0.91050
-116.400	0.93190
-79.500	0.95470
-40.600	0.97700

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Tamura K.; Tokuriki S.: Excess Enthalpies and Complex Formation of Acetonitrile with Acetone, Chloroform, and Benzene. Thermochim.Acta 47 (1981) 315-331

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$CHCl_3$	119.377	67-66-3	Chloroform
2	C_6H_6	78.114	71-43-2	Benzene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-184.000	0.15330
-267.000	0.23400
-292.000	0.26040
-360.000	0.33710
-400.000	0.42860
-430.000	0.52000
-421.000	0.60090
-418.000	0.62380
-407.000	0.63020
-398.000	0.66930
-318.000	0.78010
-308.000	0.78360
-309.000	0.79400

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Rastogi R.P.; Nath J.; Misra J.: Thermodynamics of Weak Interactions in Liquid Mixtures of Chloroform and Aromatic Hydrocarbons. J.Chem.Thermodyn. 3 (1971) 307-317

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_6	78.114	71-43-2	Benzene
2	C_6H_{12}	84.161	110-82-7	Cyclohexane

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
280.300	0.10100
476.700	0.18200
656.200	0.29100
776.700	0.42500
805.300	0.52300
797.300	0.54900
793.700	0.56300
770.700	0.61300
631.500	0.74600
416.500	0.85700

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Abello L.: Enthalpies d'excès des systèmes binaires constitués d'hydrocarbures benzéniques et du chloroforme ou du méthylchloroforme. J.Chim.Phys.Phys.-Chim.Biol. 70 (1973) 1355-1359

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_6	78.114	71-43-2	Benzene
2	C_6H_{12}	84.161	110-82-7	Cyclohexane

Miscibility gap: No

Constant Value

Temperature 293.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
188.000	0.10000
413.000	0.21500
485.000	0.24500
520.000	0.25000
634.000	0.30000
841.000	0.59500
712.000	0.70000
556.000	0.78500
378.000	0.87000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Brown C.P.; Mathieson A.R.; Thynne J.C.J.: Part I. The Heats of mixing of the Binary and Ternary Systems formed by Benzene, cycloHexane, and n-Heptane. J.Chem.Soc.London (1955) 4141-4146

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_6	78.114	71-43-2	Benzene
2	$C_{16}H_{34}$	226.446	544-76-3	Hexadecane

Miscibility gap: No

Constant Value

Temperature 323.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]	h^E [J/mol]	x_1 [mol/mol]
343.000	0.12280	986.000	0.80490
455.000	0.16480	904.000	0.83510
595.000	0.22280	879.000	0.84280
699.000	0.26730	853.000	0.85070
779.000	0.30480	826.000	0.85830
911.000	0.37210	797.000	0.86630
1008.000	0.42800	766.000	0.87440
1072.000	0.47540	736.000	0.88260
1115.000	0.51410	701.000	0.89110
1146.000	0.54910	663.000	0.89960
1164.000	0.57940	623.000	0.90840
1174.000	0.60540	580.000	0.91700
1175.000	0.62930	537.000	0.92550
1172.000	0.65050	494.000	0.93360
1165.000	0.66870	459.000	0.93830
1156.000	0.68540	439.000	0.94300
1147.000	0.70040	419.000	0.94620
1135.000	0.71420	382.000	0.95260
1123.000	0.72690	352.000	0.95710
1109.000	0.73840	281.000	0.96720
1094.000	0.74910	244.000	0.97210
1079.000	0.75900	205.000	0.97680
1060.000	0.76820	164.000	0.98170
1044.000	0.77650	123.000	0.98650
1028.000	0.78420	87.000	0.99050
1012.000	0.79170	37.000	0.99580
1000.000	0.79850		

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Diaz Pena M.; Menduina C.: Excess Enthalpies at 323.15 K of Binary Mixtures of Benzene with n-Alkanes. J.Chem.Thermodyn. 6 (1974) 1097-1102

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_6	78.114	71-43-2	Benzene
2	$C_{16}H_{34}$	226.446	544-76-3	Hexadecane

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
456.000	0.14540
531.000	0.16720
816.000	0.26890
927.000	0.31920
1013.000	0.34990
1145.000	0.42890
1263.000	0.50620
1321.000	0.56750
1345.000	0.62620
1343.000	0.67140
1319.000	0.70880
1302.000	0.73300
1287.000	0.73950
1267.000	0.75250
1252.000	0.76420
1223.000	0.77400
1211.000	0.78510
1167.000	0.79700
1171.000	0.80250
1097.000	0.82010
1016.000	0.84360
915.000	0.86770
795.000	0.89280
645.000	0.91930
488.000	0.94330
323.000	0.96480
165.000	0.98300

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Diaz Pena M.; Menduina C.: Excess Enthalpies at 298.15 K of Binary Mixtures of Benzene with n-Alkanes. J.Chem.Thermodyn. 6 (1974) 387-393

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_6	78.114	71-43-2	Benzene
2	$C_{16}H_{34}$	226.446	544-76-3	Hexadecane

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
1088.000	0.40150
1128.000	0.43330
1296.000	0.57390
1302.000	0.60490
1300.000	0.66930
1280.000	0.69720
1248.000	0.72950
1212.000	0.75440
1129.000	0.78370
1015.000	0.82850
828.000	0.87900
526.000	0.93540

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Lundberg G.W.: XI. Heats of Mixing of Hydrocarbons. J.Chem.Eng.Data 9 (1964) 193-198

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{14}	86.177	110-54-3	Hexane
2	C_6H_6	78.114	71-43-2	Benzene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
256.000	0.12000
261.300	0.12000
308.500	0.18000
449.000	0.25000
526.800	0.33000
511.500	0.35000
611.000	0.46000
601.000	0.49000
614.500	0.58000
595.100	0.58000
567.800	0.67000
428.800	0.77000
458.200	0.77000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Baluja Santos M.D.C.: Aplicacion al estudio de sistemas binarios y ternarios. Acta Cient.Compostelana 7 (1970) 3-15

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{14}	86.177	110-54-3	Hexane
2	C_6H_6	78.114	71-43-2	Benzene

Miscibility gap: No

Constant Value

Temperature 323.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
480.800	0.15000
558.800	0.20000
612.400	0.25000
706.800	0.33000
702.300	0.33000
769.800	0.42000
783.800	0.45000
783.700	0.45000
768.100	0.50000
730.200	0.64000
734.000	0.64000
629.500	0.73000
609.000	0.73000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Baluja Santos M.D.C.: Aplicacion al estudio de sistemas binarios y ternarios. Acta Cient.Compostelana 7 (1970) 3-15

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{14}	86.177	110-54-3	Hexane
2	C_6H_6	78.114	71-43-2	Benzene

Miscibility gap: No

Constant Value

Temperature 323.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]	h^E [J/mol]	x_1 [mol/mol]
159.000	0.04210	798.000	0.38740
168.000	0.04580	810.000	0.40740
319.000	0.09130	810.000	0.41110
316.000	0.09340	809.000	0.41650
459.000	0.14210	816.000	0.43740
451.000	0.14270	816.000	0.43840
553.000	0.18780	816.000	0.44340
571.000	0.19180	817.000	0.46130
641.000	0.23530	821.000	0.46770
653.000	0.23700	817.000	0.46960
714.000	0.27870	815.000	0.48350
706.000	0.27950	809.000	0.50260
752.000	0.31650	794.000	0.53900
749.000	0.31920	767.000	0.57950
768.000	0.33260	727.000	0.62500
781.000	0.35140	668.000	0.67630
785.000	0.35430	590.000	0.73130
777.000	0.35490	499.000	0.78490
799.000	0.38010	369.000	0.84920
799.000	0.38240	194.000	0.92500

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Diaz Pena M.; Menduina C.: Excess Enthalpies at 323.15 K of Binary Mixtures of Benzene with n-Alkanes. J.Chem.Thermodyn. 6 (1974) 1097-1102

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	C_6H_6	78.114	71-43-2	Benzene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
435.427	0.05010
539.260	0.07920
589.920	0.10670
632.207	0.13260
656.909	0.15700
692.915	0.20190
711.337	0.26090
707.150	0.32730
690.403	0.37950
658.583	0.43770
625.927	0.48600
575.266	0.54800
525.025	0.60150
400.677	0.70740
347.504	0.75110
279.678	0.80510
224.831	0.84470
162.866	0.89050
72.850	0.95230

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Coca Prados J.: Propiedades Fisico - Quimicas de Mezclas Liquidas Binarias: Viscosidad y Calor de Mezcla. Thesis (1969)

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	C_6H_6	78.114	71-43-2	Benzene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
483.156	0.06180
622.577	0.11780
694.171	0.19020
731.853	0.25580
719.292	0.35010
681.192	0.42810
647.698	0.49370
560.194	0.55750
588.245	0.57320
513.302	0.61500
512.045	0.63830
466.828	0.65620
413.656	0.69930
369.694	0.73170
327.408	0.76410
281.771	0.79750
238.229	0.83080
194.267	0.86430
144.863	0.89830
91.272	0.93220
43.124	0.96010
14.235	0.98620

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Deshpande D.D.; Pandya M.V.: Part 1. Heats of Mixing of Aniline in Benzene, Carbontetrachloride and Chlorobenzene. Trans.Faraday Soc. 61 (1965) 1858-1868

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_6	78.114	71-43-2	Benzene
2	C_5H_9NO	99.133	872-50-4	N-Methyl-2-pyrrolidone

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-187.400	0.11960
-300.700	0.21320
-369.100	0.28910
-436.000	0.35170
-460.800	0.40420
-483.700	0.44860
-496.300	0.48700
-506.400	0.55350
-498.700	0.59130
-481.500	0.63440
-463.800	0.68460
-414.500	0.74300
-317.900	0.81280
-202.300	0.89700

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Gustin J.-L.; Renon H.: Heats of Mixing of Binary Mixtures of N-Methylpyrrolidone, Ethanolamine, n-Heptane, Cyclohexane, and Benzene by Differential Flow Calorimeter. J.Chem.Eng.Data 18 (1973) 164-166

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_6	78.114	71-43-2	Benzene
2	C_5H_9NO	99.133	872-50-4	N-Methyl-2-pyrrolidone

Miscibility gap: No

Constant Value

Temperature 313.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-186.800	0.11960
-293.300	0.21320
-368.000	0.28910
-424.800	0.35170
-464.100	0.40420
-476.800	0.44860
-493.800	0.48700
-499.200	0.52040
-491.300	0.55350
-484.800	0.59130
-472.000	0.63440
-438.900	0.68460
-392.600	0.74300
-206.800	0.89700

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Gustin J.-L.; Renon H.: Heats of Mixing of Binary Mixtures of N-Methylpyrrolidone, Ethanolamine, n-Heptane, Cyclohexane, and Benzene by Differential Flow Calorimeter. J.Chem.Eng.Data 18 (1973) 164-166

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_6	78.114	71-43-2	Benzene
2	C_5H_9NO	99.133	872-50-4	N-Methyl-2-pyrrolidone

Miscibility gap: No

Constant Value

Temperature	363.150	K
Pressure	7.000	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
-86.269	0.05400
-163.477	0.10760
-231.144	0.16070
-295.808	0.21340
-293.419	0.21340
-390.518	0.31740
-452.182	0.41970
-469.333	0.52040
-442.836	0.61940
-374.020	0.71690
-267.651	0.81270
-198.964	0.86010
-130.232	0.90710
-94.792	0.93050

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Gmehling J.; Meents B.: Excess Enthalpies of 1-Methyl-2-pyrrolidinone + Cyclohexane, + Benzene, + Toluene, or + 1,4-Dimethylbenzene. Int.Data Series Sel.Data Mixtures Ser. A 1992 (1992) 210-213

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_6	78.114	71-43-2	Benzene
2	$C_4H_8O_2S$	120.172	126-33-0	Sulfolane

Miscibility gap: No

Constant Value

Temperature 303.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
14.500	0.05030
23.100	0.09470
38.000	0.17370
43.500	0.29560
38.300	0.34000
32.000	0.49080
28.000	0.51410
27.300	0.53740
17.400	0.67880
17.000	0.68570
14.900	0.72730
10.700	0.79360
11.200	0.80880
10.300	0.84200
17.500	0.91450
21.500	0.95490
15.700	0.98160
8.300	0.99070

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Karvo M.: V. Excess Enthalpies of Cyclohexane + Benzene, Cyclohexane + Toluene, Benzene + Sulfolane, and Toluene + Sulfolane. J.Chem.Thermodyn. 12 (1980) 635-639

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_6	78.114	71-43-2	Benzene
2	$C_4H_8O_2S$	120.172	126-33-0	Sulfolane

Miscibility gap: No

Constant Value

Temperature 313.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
12.900	0.04030
29.200	0.09560
44.900	0.17290
50.400	0.22010
53.200	0.29560
49.100	0.36770
40.200	0.46400
37.000	0.51410
32.600	0.56400
30.400	0.58680
24.600	0.61160
18.700	0.65810
16.600	0.68580
15.600	0.72740
14.500	0.74550
16.300	0.79880
18.200	0.84200
24.800	0.91370
24.400	0.96380
18.300	0.98170

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Karvo M.: Excess Enthalpies of Sulfolane + Benzene, + Toluene, + p-Xylane, and + Mesitylene as Functions of Temperature. J.Chem.Thermodyn. 15 (1983) 821-825

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_4H_8O	72.107	109-99-9	Tetrahydrofuran
2	C_6H_6	78.114	71-43-2	Benzene

Miscibility gap: No

Constant Value

Temperature 303.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-85.000	0.08900
-163.000	0.16100
-232.000	0.26100
-239.000	0.27600
-312.000	0.39400
-340.000	0.46600
-355.000	0.48000
-367.000	0.56400
-340.000	0.65100
-278.000	0.74200
-139.000	0.89300
-66.000	0.94600

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Bolinaga R.; Gracia M.; Gutierrez Losa C.: Excess Enthalpies of Mixtures Containing Tetrahydrofurfurylalcohol or Tetrahydrofurfurylamine. J.Chem.Thermodyn. 10 (1978) 667-673

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_4H_8O	72.107	109-99-9	Tetrahydrofuran
2	C_6H_6	78.114	71-43-2	Benzene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-80.800	0.05940
-185.200	0.16210
-263.200	0.25150
-320.400	0.34630
-354.500	0.43160
-365.800	0.51620
-354.600	0.60160
-322.100	0.68400
-269.300	0.77160
-196.100	0.85160
-143.000	0.89990

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Inglese A.; Wilhelm E.; Grolier J.-P.E.; Kehiaian H.V.: 3. Excess Enthalpies of Oxolane, 1,3-Dioxolane, Oxane, and 1,3-Dioxane + Benzene and + Tetrachloromethane. J.Chem.Thermodyn. 13 (1981) 229-234

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_4H_8O	72.107	109-99-9	Tetrahydrofuran
2	C_6H_6	78.114	71-43-2	Benzene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-275.073	0.20810
-372.625	0.36160
-386.441	0.40810
-393.978	0.48690
-396.071	0.50910
-382.255	0.59670
-374.719	0.61800
-337.037	0.70340
-282.609	0.77760
-190.918	0.85910

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Mahl B.S.; Kooner Z.S.; Khurma J.R.: Thermodynamic Evidence for Complex Formation between Tetrahydrofuran and Aromatic Hydrocarbons. J.Chem.Eng.Data 23 (1978) 150-152

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_6	78.114	71-43-2	Benzene
2	C_8H_{10}	106.167	108-38-3	m-Xylene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
134.200	0.22000
175.000	0.32000
202.000	0.41000
210.000	0.50000
212.100	0.52000
211.400	0.52000
200.000	0.64000
198.000	0.66000
179.000	0.73000
153.700	0.81000
122.900	0.87000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Paz-Andrade M.I.; Baluja M.C.; Nunez L.: Microcalorimetria de Calores de Mezcla. Anal.Quim. 67 (1971) 17-22

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_6	78.114	71-43-2	Benzene
2	C_8H_{10}	106.167	108-38-3	m-Xylene

Miscibility gap: No

Constant Value

Temperature 323.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
146.960	0.25000
143.610	0.25000
176.680	0.32000
175.850	0.32000
203.060	0.40000
196.360	0.40000
212.270	0.51000
214.780	0.51000
206.410	0.58000
214.360	0.58000
197.200	0.61000
208.500	0.61000
198.450	0.67000
196.360	0.67000
168.730	0.78000
165.380	0.78000
154.490	0.84000
155.750	0.84000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Paz-Andrade M.I.; Hernandez C.; Nunez L.; Jimenez E.: Sistèmes benzène-xyléne (ortho, méta et para) à 50 °C. J.Chim.Phys.Phys.-Chim.Biol. 69 (1972) 1132-1135

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	592-41-6	1-Hexene
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
43.480	0.05000
98.030	0.10020
155.690	0.15060
220.650	0.20030
282.900	0.25000
347.020	0.30050
404.520	0.35000
462.170	0.40010
515.120	0.44990
560.980	0.50030
596.520	0.55030
623.730	0.59960
642.580	0.65050
647.960	0.70060
639.780	0.74990
615.670	0.80060
576.100	0.85030
512.910	0.90020
405.510	0.95010

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Aguilar F.; Alaoui F.E.M.; Segovia J.J.; Villamanan M.A.; Montero E.A.: Ether + alcohol + hydrocarbon mixtures in fuels and bio-fuels: Excess enthalpies of binary mixtures containing dibutyl ether (DBE) or 1-butanol and 1-hexene or methylcyclohexane or toluene or cyclohexane or 2,2,4-trimethylpentane at 298.15 K and 313.15 K. Fluid Phase Equilib. 315 (2012) 1-8

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	592-41-6	1-Hexene
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 313.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
78.700	0.05000
166.570	0.10010
251.910	0.15050
339.900	0.20020
426.630	0.24990
507.810	0.30040
588.460	0.34980
662.530	0.40000
728.370	0.44980
784.670	0.50010
830.430	0.55010
861.970	0.59950
880.180	0.65040
881.140	0.70050
867.010	0.74980
835.060	0.80050
781.820	0.85030
693.250	0.90020
533.050	0.95010

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Aguilar F.; Alaoui F.E.M.; Segovia J.J.; Villamanan M.A.; Montero E.A.: Ether + alcohol + hydrocarbon mixtures in fuels and bio-fuels: Excess enthalpies of binary mixtures containing dibutyl ether (DBE) or 1-butanol and 1-hexene or methylcyclohexane or toluene or cyclohexane or 2,2,4-trimethylpentane at 298.15 K and 313.15 K. Fluid Phase Equilib. 315 (2012) 1-8

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_8O	60.096	67-63-0	2-Propanol
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature	323.150	K
Pressure	19.610	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
-4.148	0.02990
-7.976	0.05950
-14.372	0.11780
-25.065	0.23100
-31.938	0.34000
-35.336	0.44480
-36.033	0.54580
-33.394	0.64320
-28.309	0.73710
-20.944	0.82780
-11.084	0.91540
-5.825	0.95800

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source
Gmehling J.: unpublished data. Unpublished Data (2011) 1-43

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_8O	60.096	67-63-0	2-Propanol
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature	298.150	K
Pressure	1.0132	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
-5.220	0.07830
-9.380	0.15540
-12.420	0.23140
-14.580	0.30630
-15.880	0.37970
-16.600	0.45240
-16.780	0.52470
-16.580	0.59540
-15.520	0.66520
-13.790	0.73400
-11.510	0.80190
-8.400	0.86880
-4.580	0.93490

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nan Y.-Q.; Hou Y.-J.; Yu Q.-S.: Measurement of Excess Molar Enthalpies of some Alkan-1-ol/iso-Propanol Binary Series. Huaxue-Xuebao 56 (1998) 105-108

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_8O	60.096	67-63-0	2-Propanol
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature	308.150	K
Pressure	1.0132	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
-5.850	0.08170
-10.640	0.16150
-14.490	0.23970
-17.280	0.31610
-19.220	0.39100
-20.300	0.46430
-20.340	0.53610
-19.590	0.60650
-18.180	0.67530
-15.990	0.74290
-13.000	0.80910
-9.290	0.87400
-4.880	0.93760

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nan Y.-Q.; Hou Y.-J.; Yu Q.-S.: Measurement of Excess Molar Enthalpies of some Alkan-1-ol/iso-Propanol Binary Series. Huaxue-Xuebao 56 (1998) 105-108

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	71-36-3	1-Butanol
2	$C_2H_4O_2$	60.053	64-19-7	Acetic acid

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
70.090	0.02130
152.660	0.05980
254.010	0.11920
329.100	0.19450
374.730	0.27070
394.540	0.33820
403.340	0.40720
395.880	0.48820
359.220	0.59100
300.870	0.69150
239.230	0.76510
94.840	0.90430

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Zhao J.; Bao J.; Hu Y.: Excess molar enthalpies of (an alkanol + a carboxylic acid) at 298.15 K measured with a Picker calorimeter. J.Chem.Thermodyn. 21 (1989) 811-818

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	71-36-3	1-Butanol
2	$C_2H_4O_2$	60.053	64-19-7	Acetic acid

Miscibility gap: No

Constant Value

Temperature	298.000	K
Pressure	1.000	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
149.000	0.05000
251.000	0.09700
403.000	0.19900
480.000	0.29700
503.000	0.40300
491.000	0.50000
449.000	0.59900
390.000	0.70200
291.000	0.80300
171.000	0.90000
99.000	0.95000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Bender M.; Heintz A.; Lichtenthaler R.N.: Excess Enthalpy of the System Butyl Acetate + Butan-1-ol + Acetic Acid + Water at 313 K and Ambient Pressure. Thermochim.Acta 187 (1991) 79-94

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	71-36-3	1-Butanol
2	$C_6H_{12}O_2$	116.160	123-86-4	Acetic acid butyl ester

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
1066.000	0.19770
1254.000	0.27490
1400.000	0.35890
1428.000	0.37600
1460.000	0.41320
1453.000	0.43640
1459.000	0.46330
1453.000	0.50870
1424.000	0.53330
1388.000	0.58310
1325.000	0.61020
1256.000	0.63900
1224.000	0.66390
1204.000	0.67110
1042.000	0.74680
875.000	0.80490
733.000	0.84610
397.000	0.92480

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Bravo R.; Paz-Andrade M.I.; Kehiaian H.V.: Microcalorimetria de Mezclas Liquidas. Estudio Teorico-Experimental de los Sistemas Ester + Alcohol. Acta Cient.Compostelana 16 (1979) 141-163

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	71-36-3	1-Butanol
2	$C_6H_{12}O_2$	116.160	123-86-4	Acetic acid butyl ester

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
572.000	0.09430
807.000	0.13850
958.000	0.16930
1059.000	0.20350
1131.000	0.22750
1224.000	0.25630
1354.000	0.33380
1378.000	0.36990
1526.000	0.51910
1218.000	0.66910
1134.000	0.69990
1026.000	0.73750
933.000	0.79830
721.000	0.84590
577.000	0.88480
514.000	0.90010

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Kehlen H.; Fuhrmann E.: Die Exzeßenthalpien in Butylacetat-Butanol-Mischungen. Z.Phys.Chem.(Leipzig) 259 (1978) 373-376

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$CHCl_3$	119.377	67-66-3	Chloroform
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-135.600	0.03710
-260.600	0.08510
-347.000	0.17180
-333.300	0.21910
-251.700	0.29180
-176.800	0.33690
-38.100	0.40620
101.800	0.47000
247.400	0.53200
327.200	0.57010
414.500	0.61500
507.900	0.67070
580.200	0.72640
620.400	0.78990
606.500	0.85790
467.600	0.92750
161.600	0.98220

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Kawamura Y.; Asano H.; Fujiwara K.; Ogasawara Y.: Excess Enthalpies for Binary Mixtures of Chloroform with Alcohols. Z.Phys.Chem.(Leipzig) 259 (1978) 1109-1116

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$CHCl_3$	119.377	67-66-3	Chloroform
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-107.400	0.03520
-220.100	0.09600
-248.800	0.16990
-202.600	0.23040
-106.800	0.29470
45.500	0.37110
186.300	0.43440
315.000	0.49200
398.200	0.53080
461.900	0.56250
542.600	0.60550
615.600	0.64970
684.800	0.70420
732.400	0.79650
639.400	0.88520
420.600	0.94550
209.300	0.97720

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Kawamura Y.; Asano H.; Fujiwara K.; Ogasawara Y.: Excess Enthalpies for Binary Mixtures of Chloroform with Alcohols. Z.Phys.Chem.(Leipzig) 259 (1978) 1109-1116

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$CHCl_3$	119.377	67-66-3	Chloroform
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-111.800	0.02650
-185.000	0.04530
-289.200	0.08270
-348.400	0.10980
-388.800	0.15160
-391.600	0.19310
-372.700	0.22930
-312.400	0.28290
-223.100	0.33600
-118.100	0.38830
-10.500	0.44010
90.200	0.49120
189.200	0.54170
275.200	0.59150
350.800	0.64080
420.200	0.68950
475.800	0.73770
508.200	0.78520
518.600	0.81690
508.200	0.84780
482.600	0.87870
427.500	0.90990
337.900	0.93980
200.200	0.97000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Chao J.-P.; Zhang F.-Q.; Dai M.: XVIII. Excess Molar Enthalpies of Each of (One of the Four Butanols + Trichloromethane or 1,2-Dichloroethane). J.Chem.Thermodyn. 24 (1992) 823-827

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	110-82-7	Cyclohexane
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
39.356	0.02700
152.818	0.09000
319.034	0.23700
414.493	0.30400
508.277	0.36800
592.851	0.49000
648.116	0.61400
633.044	0.70000
594.107	0.75300
307.730	0.95900
227.762	0.98100

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Belousov V.P.; Kurtynina L.M.; Kozulyaev A.A.: VII.Mischungswärme des Cyclohexans mit Propanol, n-Butanol, Isobutanol und Dekanol. Vestn.Leningr.Univ.Fiz.Khim. (1970) 163-166

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	110-82-7	Cyclohexane
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
124.767	0.07400
235.298	0.13800
515.814	0.33700
625.089	0.43600
707.150	0.52100
731.853	0.60600
726.828	0.70600
676.168	0.77700
601.224	0.83000
476.876	0.92000
414.912	0.94300

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Belousov V.P.; Kurtynina L.M.; Kozulyaev A.A.: VII.Mischungswärme des Cyclohexans mit Propanol, n-Butanol, Isobutanol und Dekanol. Vestn.Leningr.Univ.Fiz.Khim. (1970) 163-166

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	110-82-7	Cyclohexane
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 318.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
211.433	0.09800
260.000	0.12700
544.284	0.28500
711.756	0.40600
788.374	0.49100
846.990	0.55400
869.179	0.60600
872.948	0.61700
888.439	0.65200
848.246	0.74200
766.603	0.82000
575.685	0.92400
509.533	0.94200

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Belousov V.P.; Kurtynina L.M.; Kozulyaev A.A.: VII.Mischungswärme des Cyclohexans mit Propanol, n-Butanol, Isobutanol und Dekanol. Vestn.Leningr.Univ.Fiz.Khim. (1970) 163-166

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	71-36-3	1-Butanol
2	$C_{16}H_{34}$	226.446	544-76-3	Hexadecane

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
386.000	0.02880
635.000	0.08780
733.000	0.13770
884.000	0.23480
959.000	0.32430
993.000	0.47540
938.000	0.59130
828.000	0.67480
698.000	0.76300
669.000	0.77140
618.000	0.80100
566.000	0.82950
429.000	0.88080
341.000	0.91350
205.000	0.95170

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Jimenez J.; Valero J.; Gracia M.; Gutierrez Losa C.: Excess molar enthalpies of (an n-alkane + a butanol isomer). J.Chem.Thermodyn. 20 (1988) 931-936

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	71-36-3	1-Butanol
2	$C_{16}H_{34}$	226.446	544-76-3	Hexadecane

Miscibility gap: No

Constant Value

Temperature 318.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
680.000	0.05160
708.000	0.05480
751.000	0.06180
1153.000	0.16040
1294.000	0.22280
1394.000	0.29190
1464.000	0.38710
1441.000	0.47920
1365.000	0.54320
1285.000	0.59580
1307.000	0.59780
1187.000	0.66190
1171.000	0.66760
1027.000	0.73140
753.000	0.82790
744.000	0.83230
492.000	0.90120
265.000	0.95280

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Jimenez J.; Valero J.; Gracia M.; Gutierrez Losa C.: Excess molar enthalpies of (an n-alkane + a butanol isomer). J.Chem.Thermodyn. 20 (1988) 931-936

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	71-36-3	1-Butanol
2	$C_{16}H_{34}$	226.446	544-76-3	Hexadecane

Miscibility gap: No

Constant Value

Temperature 298.000 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
711.756	0.10000
921.096	0.20000
1130.440	0.30000
1193.240	0.40000
1109.500	0.50000
1025.770	0.60000
900.162	0.70000
669.888	0.80000
376.812	0.90000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Tsvetkov V.G.; Nikolaev P.N.; Mitin V.A.; Belousov V.P.: Enthalpies of mixing of bromine, methyl iodide, and n-butyl alcohol with hydrocarbons of different molecular weight. Termodinamika i stroenie rastvorov; Ivanovo (1979) 124-126

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
64.477	0.20390
102.158	0.34500
102.158	0.34860
110.531	0.37730
132.722	0.44310
146.119	0.63560
141.514	0.66800
140.258	0.66830
140.258	0.67680
130.209	0.72930
131.884	0.74050
127.279	0.77290
107.601	0.82770

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Diaz Pena M.; Fernandez Martin F.: Parte 1. Calor de mezcla del sistema n-butanol + metanol a 25,0°C. Anal.Fis.Quim.Ser.B 59 (1963) 323-330

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
17.400	0.04530
46.100	0.12640
78.700	0.22310
109.700	0.33170
131.200	0.42850
144.200	0.51690
149.000	0.59200
149.800	0.62090
147.500	0.65630
146.900	0.67400
141.600	0.71040
139.900	0.72560
133.000	0.75510
128.300	0.77650
111.700	0.82620
91.600	0.87110
69.100	0.91110
46.500	0.94440
25.800	0.97100
10.200	0.98900

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Pope A.E.; Pflug H.D.; Dacre B.; Benson G.C.: Molar Excess Enthalpies of Binary n-Alcohol Systems at 25 °C. Can.J.Chem. 45 (1967) 2665-2674

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature	293.150	K
Pressure	1.010	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
3.720	0.04410
19.040	0.08600
33.550	0.12600
45.660	0.16410
58.520	0.20060
106.100	0.36080
135.470	0.49180
152.400	0.60090
147.370	0.69310
131.110	0.77210
105.990	0.84050
73.280	0.90030
36.030	0.95310

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Battler J.R.; Rowley R.L.: Excess enthalpies between 293 and 323 K for constituent binaries of ternary mixtures exhibiting partial miscibility. J.Chem.Thermodyn. 17 (1985) 719-732

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	71-36-3	1-Butanol
2	C_5H_9NO	99.133	872-50-4	N-Methyl-2-pyrrolidone

Miscibility gap: No

Constant	Value	
Temperature	413.150	K
Pressure	23.750	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
-132.381	0.05270
-256.176	0.10500
-382.692	0.15710
-499.458	0.20890
-608.042	0.26040
-719.582	0.31160
-807.313	0.36250
-883.240	0.41320
-943.188	0.46360
-983.633	0.51370
-1007.980	0.56350
-1005.000	0.61310
-986.099	0.66230
-937.803	0.71140
-860.134	0.76010
-764.169	0.80860
-625.946	0.85680
-459.369	0.90480
-252.633	0.95250

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source
Gmehling J.: unpublished data. Unpublished Data (2011) 1-43

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	71-36-3	1-Butanol
2	C_5H_9NO	99.133	872-50-4	N-Methyl-2-pyrrolidone

Miscibility gap: No

Constant Value

Temperature	298.150	K
Pressure	1.010	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
204.400	0.28030
234.700	0.32470
254.500	0.35360
268.100	0.37540
282.500	0.40250
300.900	0.44270
311.600	0.57130
293.100	0.61740
273.400	0.66680
261.000	0.70570
241.800	0.73760
215.700	0.78160
190.500	0.82120

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Letcher T.M.; Lachwa J.; Domanska U.: The excess molar volumes and enthalpies of (N-methyl-2-pyrrolidinone + an alcohol) at T = 298.15 K and the application of the ERAS theory). J.Chem.Thermodyn. 33 (2001) 1169-1179

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_4H_8O	72.107	109-99-9	Tetrahydrofuran
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
282.400	0.09020
436.300	0.14560
566.900	0.20040
681.300	0.25450
780.400	0.30800
857.900	0.36080
915.300	0.41300
950.800	0.46460
970.100	0.51550
972.900	0.56590
955.200	0.61570
916.500	0.66490
864.900	0.71350
782.000	0.76160
680.000	0.80910
560.300	0.85610
418.200	0.90260

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Chao J.P.; Dai M.: Excess enthalpies of (an alkan-1-ol + tetrahydrofuran or cyclohexanone) at 298.15 K. J.Chem.Thermodyn. 21 (1989) 977-983

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	71-36-3	1-Butanol
2	C_4H_8O	72.107	109-99-9	Tetrahydrofuran

Miscibility gap: No

Constant Value

Temperature 283.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
204.000	0.05600
383.000	0.10600
638.000	0.20900
765.000	0.31400
814.000	0.41500
801.000	0.51400
720.000	0.61100
585.000	0.71000
408.000	0.80700
201.000	0.90500
98.000	0.95500

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Valen A.; Lopez M.C.; Urieta J.S.; Royo F.M.; Lafuente C.: Thermodynamic Study of Mixtures Containing Oxygenated Compounds. J.Mol.Liq. 95 (2002) 157-165

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	71-36-3	1-Butanol
2	C_4H_8O	72.107	109-99-9	Tetrahydrofuran

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
216.000	0.05600
404.000	0.10600
680.000	0.20900
844.000	0.31400
924.000	0.41500
922.000	0.51400
844.000	0.61100
710.000	0.71000
494.000	0.80700
263.000	0.90500
125.000	0.95500

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Valen A.; Lopez M.C.; Urieta J.S.; Royo F.M.; Lafuente C.: Thermodynamic Study of Mixtures Containing Oxygenated Compounds. J.Mol.Liq. 95 (2002) 157-165

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	71-36-3	1-Butanol
2	C_8H_{10}	106.167	108-38-3	m-Xylene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
665.000	0.08030
793.000	0.12080
911.000	0.17750
961.000	0.21350
995.000	0.25290
1010.000	0.28350
1017.000	0.30590
1028.000	0.33510
1027.000	0.35300
1025.000	0.37440
1018.000	0.39950
1005.000	0.43030
972.000	0.47220
932.000	0.51520
880.000	0.55670
820.000	0.60850
753.000	0.64980
663.000	0.69840
580.000	0.74200
508.000	0.77680
419.000	0.81810

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Rodriguez-Nunez E.; Paz-Andrade M.I.; Jimenez E.; Bravo R.: II. Excess molar enthalpies at 298.15 K for 1-propanol, 1-butanol, and 1-pentanol. J.Chem.Thermodyn. 17 (1985) 23-28

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_8H_{10}	106.167	108-38-3	m-Xylene
2	$C_4H_{10}O$	74.123	71-36-3	1-Butanol

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
720.400	0.91234
907.200	0.87210
1140.800	0.79461
1225.400	0.75170
1265.800	0.69132
1279.400	0.61934
1241.400	0.56387
1185.300	0.51046
1139.800	0.44693
1088.500	0.39519
993.900	0.33552
859.100	0.26956
686.900	0.20450
434.200	0.12766
209.700	0.06641

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Bhardwaj U.; Singh K.C.: Excess molar enthalpies of mixing of 1-butanol with aromatic hydrocarbons at 308.15 K. Indian J.Chem.Sect.A 37 (1998) 1063-1069

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	71-36-3	1-Butanol
2	C_8H_{10}	106.167	106-42-3	p-Xylene

Miscibility gap: No

Constant	Value
Temperature	298.150 K
Pressure	1.700 bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
562.000	0.05940
662.000	0.08050
778.400	0.11960
805.800	0.12790
804.900	0.12920
859.600	0.15780
907.000	0.19160
917.200	0.19530
954.300	0.23200
972.800	0.24820
971.700	0.25130
980.600	0.26810
992.500	0.30340
988.500	0.30990
997.900	0.33800
996.500	0.35120
996.800	0.36140
993.400	0.36220
994.600	0.37200
977.000	0.41550
940.100	0.46760
936.400	0.46810
898.000	0.51590
829.900	0.56470
820.400	0.56900
686.500	0.65460
670.800	0.66450
522.800	0.74440
503.100	0.75490
342.800	0.83270
332.000	0.84070
162.200	0.92240

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Christensen J.J.; Rossiter B.E.; O'Neill T.K.; Hanks R.W.: The Excess Enthalpies of Six p-Xylene + Alcohol Mixtures at 298.15 K. J.Chem.Thermodyn. 10 (1978) 829-833

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	71-36-3	1-Butanol
2	C_8H_{10}	106.167	106-42-3	p-Xylene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
676.000	0.08260
810.000	0.13150
904.000	0.18310
940.000	0.21360
973.000	0.24460
985.000	0.26970
1002.000	0.28790
1009.000	0.30830
1009.000	0.32980
1006.000	0.35040
999.000	0.38080
981.000	0.41050
964.000	0.44340
945.000	0.47420
893.000	0.51810
856.000	0.55320
756.000	0.62390
673.000	0.67360
605.000	0.71160
520.000	0.75880
426.000	0.80380

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Rodriguez-Nunez E.; Paz-Andrade M.I.; Jimenez E.; Bravo R.: II. Excess molar enthalpies at 298.15 K for 1-propanol, 1-butanol, and 1-pentanol. J.Chem.Thermodyn. 17 (1985) 23-28

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$C_4H_{10}O$	74.123	71-36-3	1-Butanol
2	C_8H_{10}	106.167	106-42-3	p-Xylene

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
481.400	0.08245
691.000	0.13969
932.400	0.21475
1069.500	0.27949
1105.000	0.32432
1084.600	0.39629
1029.300	0.45448
944.000	0.52031
849.400	0.57592
655.200	0.66415
523.600	0.72432
399.200	0.78917
253.700	0.86947
185.400	0.91273
70.100	0.96310

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Bhardwaj U.; Singh K.C.: Excess molar enthalpies of mixing of 1-butanol with aromatic hydrocarbons at 308.15 K. Indian J.Chem.Sect.A 37 (1998) 1063-1069

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$CHCl_3$	119.377	67-66-3	Chloroform
2	C_3H_8O	60.096	67-63-0	2-Propanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-49.400	0.01560
-130.800	0.05210
-171.400	0.09000
-177.100	0.11570
-172.600	0.14230
-129.300	0.18790
-63.600	0.23180
22.500	0.27780
201.600	0.36250
392.500	0.45280
456.100	0.48290
556.400	0.53560
678.300	0.61480
739.700	0.67090
763.700	0.70470
777.200	0.73960
778.900	0.76800
772.000	0.79180
746.300	0.82640
675.600	0.87150
550.900	0.91470
258.800	0.96960

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Kawamura Y.; Asano H.; Fujiwara K.; Ogasawara Y.: Excess Enthalpies for Binary Mixtures of Chloroform with Alcohols. Z.Phys.Chem.(Leipzig) 259 (1978) 1109-1116

No.	Formula	Molar Mass	CAS Registry Number	Name
1	$CHCl_3$	119.377	67-66-3	Chloroform
2	C_3H_8O	60.096	67-63-0	2-Propanol

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-48.600	0.02230
-95.600	0.06210
-104.600	0.10200
-100.400	0.11940
-46.900	0.16780
38.000	0.21740
252.300	0.31670
674.500	0.51250
796.900	0.58990
879.600	0.67420
895.900	0.71680
893.600	0.75050
881.500	0.77730
851.300	0.80920
851.000	0.81160
780.600	0.85260
658.100	0.89570
541.400	0.92430
418.500	0.94680
251.900	0.97010

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Kawamura Y.; Asano H.; Fujiwara K.; Ogasawara Y.: Excess Enthalpies for Binary Mixtures of Chloroform with Alcohols. Z.Phys.Chem.(Leipzig) 259 (1978) 1109-1116

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	110-82-7	Cyclohexane
2	C_3H_8O	60.096	67-63-0	2-Propanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
45.200	0.01770
125.500	0.05030
234.100	0.09790
367.000	0.16140
493.300	0.23010
606.600	0.30260
685.400	0.36420
741.200	0.41680
781.600	0.46630
791.800	0.49200
818.100	0.55140
825.700	0.60880
809.500	0.67270
764.100	0.73810
692.200	0.79920
595.500	0.85770
467.700	0.91510
249.300	0.97800

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Fujiwara K.; Ogasawara Y.: Excess Enthalpies of 2-Propanol + Cyclohexane and 2-Propanol + Benzene + Cyclohexane at 298.15 K. J.Chem.Thermodyn. 10 (1978) 1201-1203

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	110-82-7	Cyclohexane
2	C_3H_8O	60.096	67-63-0	2-Propanol

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
318.200	0.10880
334.110	0.11400
671.560	0.26990
800.100	0.35110
897.650	0.40670
945.380	0.48280
951.660	0.51130
961.710	0.52420
981.390	0.61680
950.400	0.68680
931.560	0.71390
836.520	0.78740
754.880	0.83640
672.820	0.88230
617.550	0.89700

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Ohta T.: Computation of Vapor-Liquid Equilibria Data from Binary and Ternary Vapor Pressure and Boiling Points Measurements. Ind.Eng.Chem. Process Des.Dev. 13 (1974) 304-309

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	110-82-7	Cyclohexane
2	C_3H_8O	60.096	67-63-0	2-Propanol

Miscibility gap: No

Constant Value

Temperature 318.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
198.870	0.05610
444.220	0.14180
457.200	0.14550
470.180	0.14800
612.950	0.20330
748.600	0.26570
744.410	0.26910
778.330	0.28720
856.200	0.32570
1026.600	0.44010
1101.130	0.50810
1131.690	0.58670
1098.200	0.68260
1097.360	0.70000
1029.950	0.75750
927.790	0.81840
856.200	0.85500
695.430	0.89600
606.250	0.91510

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Ohta T.: Computation of Vapor-Liquid Equilibria Data from Binary and Ternary Vapor Pressure and Boiling Points Measurements. Ind.Eng.Chem. Process Des.Dev. 13 (1974) 304-309

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	C_3H_8O	60.096	67-63-0	2-Propanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-20.900	0.05120
-37.300	0.10210
-60.500	0.20090
-73.400	0.30090
-77.000	0.40450
-73.200	0.49470
-71.100	0.55180
-64.700	0.61690
-55.000	0.69980
-39.400	0.79550
-22.000	0.88480
-9.900	0.94770

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Haase R.; Tillmann W.: Mixing Properties of the Liquid Systems Methanol + 2-Propanol and 1-Propanol + 2-Propanol. Z.Phys.Chem.(München) 192 (1995) 121-131

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_8O	60.096	67-63-0	2-Propanol
2	CH_4O	32.042	67-56-1	Methanol

Miscibility gap: No

Constant Value

Temperature	298.150	K
Pressure	1.0132	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
-29.880	0.05600
-74.520	0.14280
-110.670	0.22340
-157.920	0.34480
-180.550	0.43120
-191.370	0.51490
-182.470	0.67100
-150.100	0.74890
-95.270	0.84340

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nan Y.-Q.; Hou Y.-J.; Yu Q.-S.: Measurement of Excess Molar Enthalpies of some Alkan-1-ol/iso-Propanol Binary Series. Huaxue-Xuebao 56 (1998) 105-108

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_8O	60.096	67-63-0	2-Propanol
2	C_5H_9NO	99.133	872-50-4	N-Methyl-2-pyrrolidone

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
271.100	0.10800
474.300	0.21260
613.700	0.31120
729.600	0.40500
994.400	0.54380
1028.900	0.59410
1039.300	0.65290
1003.600	0.71060
932.300	0.77210
796.800	0.82980
572.700	0.89180
296.500	0.94840

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Gnanakumari P.; Venkatesu P.; Rama Mohan K.; Prabhakara Rao M.V.; Prasad D.H.L.: Excess volumes and excess enthalpies of N-methyl-2-pyrrolidone with branched alcohols. Fluid Phase Equilib. 252 (2007) 137-142

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_4H_8O	72.107	109-99-9	Tetrahydrofuran
2	C_3H_8O	60.096	67-63-0	2-Propanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
140.600	0.02000
499.400	0.11900
575.400	0.14600
676.400	0.18000
815.600	0.24400
922.600	0.31000
1040.800	0.39600
1120.000	0.50600
1121.400	0.59600
1060.900	0.67000
942.000	0.74300
870.500	0.77700
790.800	0.81200
600.100	0.87000
400.000	0.91300
150.100	0.97800

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Letcher T.M.; Govender U.P.: Excess Molar Enthalpies of an Alkanol + a Cyclic Ether at 298.15 K. J.Chem.Eng.Data 40 (1995) 1097-1100

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_4H_8O	72.107	109-99-9	Tetrahydrofuran
2	C_3H_8O	60.096	67-63-0	2-Propanol

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
514.000	0.15000
629.700	0.19050
834.900	0.27360
861.100	0.28180
927.100	0.32010
998.000	0.37040
1086.000	0.42960
1130.000	0.50100
1088.000	0.60100
991.700	0.69320
876.800	0.75080
779.800	0.79020
659.100	0.83390

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Fanni A.M.; Marongiu B.; Porcedda S.: Excess enthalpies for binary and ternary mixtures containing propan-2-ol, oxolane, and cyclohexane at 298.15 K. Eldata Int.Electron.J.Phys.-Chem.Data 4 (1998) 21-28

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_8O	60.096	67-63-0	2-Propanol
2	H_2O	18.015	7732-18-5	Water

Miscibility gap: No

Constant Value

Temperature 273.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-20.934	0.00100
-97.134	0.00500
-257.907	0.01400
-439.614	0.02600
-866.667	0.08300
-870.854	0.08700
-983.898	0.13500
-921.096	0.17900
-862.481	0.22600
-401.933	0.50900
-106.345	0.70400
-9.211	0.78800
33.494	0.86400
30.982	0.90400
22.609	0.93900

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Belousov V.P.; Ponner V.: Mischungswärme der Flüssigkeiten. V.Mischungs- und Lösungswärme im System Isopropanol-Wasser bei 0, 35, 55 und 75 °C. Vestn.Leningr.Univ.Fiz.Khim. 9 (1969) 142-144

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_8O	60.096	67-63-0	2-Propanol
2	H_2O	18.015	7732-18-5	Water

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-33.494	0.00290
-121.417	0.01300
-355.878	0.05700
-456.361	0.10300
-439.614	0.15100
-171.659	0.35100
-33.494	0.44800
157.424	0.57700
211.015	0.67300
217.714	0.76700
146.538	0.89100
103.833	0.92900
48.148	0.96900

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Belousov V.P.; Ponner V.: Mischungswärme der Flüssigkeiten. V.Mischungs- und Lösungswärme im System Isopropanol-Wasser bei 0, 35, 55 und 75 °C. Vestn.Leningr.Univ.Fiz.Khim. 9 (1969) 142-144

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_8O	60.096	67-63-0	2-Propanol
2	H_2O	18.015	7732-18-5	Water

Miscibility gap: No

Constant Value

Temperature 328.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-36.006	0.00470
-115.137	0.01900
-209.340	0.06300
-234.461	0.08400
-247.021	0.10000
-198.873	0.13800
-173.333	0.15800
-160.354	0.16300
-8.792	0.25000
146.538	0.35900
292.657	0.45600
410.306	0.61500
418.680	0.63700
319.871	0.78900
185.057	0.90300
174.590	0.90900
69.920	0.96700

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Belousov V.P.; Ponner V.: Mischungswärme der Flüssigkeiten. V.Mischungs- und Lösungswärme im System Isopropanol-Wasser bei 0, 35, 55 und 75 °C. Vestn.Leningr.Univ.Fiz.Khim. 9 (1969) 142-144

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_8O	60.096	67-63-0	2-Propanol
2	C_8H_{10}	106.167	108-38-3	m-Xylene

Miscibility gap: No

Constant Value

Temperature 298.200 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
700.500	0.08770
891.600	0.13240
1075.800	0.19980
1165.100	0.26860
1200.500	0.33080
1205.400	0.39580
1199.000	0.42860
1180.600	0.46740
1141.900	0.52840
1100.700	0.57890
1029.100	0.63200
827.300	0.73960
613.100	0.82050
349.100	0.89920

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Letcher T.M.; Prasad A.K.; Schoonbaert F.E.Z.; Mercer-Chalmers J.: Excess enthalpies of (a xylene + an alkanol) at 298.2 K. J.Chem.Thermodyn. 22 (1990) 765-770

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_8O	60.096	67-63-0	2-Propanol
2	C_8H_{10}	106.167	108-38-3	m-Xylene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
675.000	0.06560
1002.000	0.12130
1188.000	0.18240
1266.000	0.26920
1264.000	0.29380
1222.000	0.37530
1127.000	0.46940
1047.000	0.52870
918.000	0.60190
747.000	0.67750
568.000	0.74210
393.000	0.79940
195.000	0.86390
15.000	0.94270

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Singh K.C.; Kalra K.C.; Maken S.; Gupta V.: Excess heat of mixing of 1-propanol or 2-propanol with benzene, toluene, o-, m- and p-xylenes at 298.15 K. Thermochim.Acta 275 (1996) 51-65

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_8O	60.096	67-63-0	2-Propanol
2	C_8H_{10}	106.167	108-38-3	m-Xylene

Miscibility gap: No

Constant Value

Temperature 308.250 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
1024.000	0.11100
1352.000	0.19270
1471.000	0.26510
1492.000	0.31530
1471.000	0.39440
1411.000	0.45610
1317.000	0.52730
1215.000	0.58500
1031.000	0.66710
853.000	0.73140
627.000	0.80200
414.000	0.86290
282.000	0.90170
87.000	0.96430

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Singh K.C.; Kalra K.C.; Maken S.; Gupta V.: Excess molar enthalpies of mixing of 1-propanol or 2-propanol with aromatic hydrocarbons at 308.15 K in terms of an association model. Fluid Phase Equilib. 119 (1996) 175-190

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_8O	60.096	67-63-0	2-Propanol
2	C_8H_{10}	106.167	106-42-3	p-Xylene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
270.800	0.01950
507.100	0.04620
738.100	0.09230
936.700	0.15830
1090.500	0.24180
1168.800	0.32490
1187.400	0.39030
1163.000	0.47730
1107.500	0.54540
1081.700	0.57150
1008.800	0.62450
887.700	0.69360
770.500	0.74870
616.700	0.81020
415.100	0.87970
242.000	0.93300
113.600	0.97000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Ogasawara Y.: Prediction of Ternary Excess Enthalpies from Binary Data.. Thermochim.Acta 52 (1982) 155-168

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_8O	60.096	67-63-0	2-Propanol
2	C_8H_{10}	106.167	106-42-3	p-Xylene

Miscibility gap: No

Constant Value

Temperature 298.200 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
780.900	0.11050
905.100	0.14150
1065.200	0.21160
1156.000	0.28560
1175.900	0.33810
1181.400	0.38850
1170.400	0.43510
1140.600	0.49680
1090.600	0.54510
978.400	0.63860
760.000	0.75240
550.400	0.83280
324.500	0.90640
190.000	0.94610

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Letcher T.M.; Prasad A.K.; Schoonbaert F.E.Z.; Mercer-Chalmers J.: Excess enthalpies of (a xylene + an alkanol) at 298.2 K. J.Chem.Thermodyn. 22 (1990) 765-770

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_3H_8O	60.096	67-63-0	2-Propanol
2	C_8H_{10}	106.167	106-42-3	p-Xylene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
931.000	0.11100
1155.000	0.17270
1278.000	0.25780
1290.000	0.31260
1274.000	0.37190
1236.000	0.43340
1184.000	0.49780
1103.000	0.56610
1031.000	0.61340
887.000	0.68830
809.000	0.72240
595.000	0.79990
403.000	0.86050
233.000	0.91320

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Singh K.C.; Kalra K.C.; Maken S.; Gupta V.: Excess heat of mixing of 1-propanol or 2-propanol with benzene, toluene, o-, m- and p-xylenes at 298.15 K. Thermochim.Acta 275 (1996) 51-65

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	592-41-6	1-Hexene
2	C_6H_{14}	86.177	110-54-3	Hexane

Miscibility gap: No
Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
34.600	0.15850
46.300	0.26490
49.900	0.31550
53.300	0.39120
51.300	0.53430
45.500	0.63050
41.300	0.69050
29.900	0.78430

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Letcher T.M.; Sack J.: The Excess Enthalpy of Mixing of Some Hydrocarbon Mixtures. J.S.Afr.Chem.Inst. 28 (1975) 316-320

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	592-41-6	1-Hexene
2	C_6H_{14}	86.177	110-54-3	Hexane

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
10.700	0.04750
31.800	0.16530
50.500	0.30220
57.000	0.39320
61.100	0.49350
57.900	0.59960
51.200	0.72210
37.700	0.84240
13.300	0.94190

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Woycicki W.: 1. n-Alkene + n-Alkane. J.Chem.Thermodyn. 7 (1975) 77-81

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	592-41-6	1-Hexene
2	C_6H_{14}	86.177	110-54-3	Hexane

Miscibility gap: No

Constant	Value	
Temperature	323.150	K
Pressure	14.790	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
9.243	0.05190
18.042	0.10360
26.236	0.15510
32.170	0.20640
38.546	0.25750
42.935	0.30840
46.426	0.35910
48.146	0.40950
50.380	0.45980
50.438	0.50990
49.669	0.55980
48.657	0.60950
45.863	0.65890
43.027	0.70820
37.436	0.75730
31.899	0.80630
25.794	0.85500
18.489	0.90350
9.594	0.95180

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source
Gmehling J.: unpublished data. Unpublished Data (2011) 1-43

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	592-41-6	1-Hexene
2	C_5H_9NO	99.133	872-50-4	N-Methyl-2-pyrrolidone

Miscibility gap: No

Constant Value

Temperature	363.150	K
Pressure	8.000	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
174.700	0.03900
333.600	0.07890
333.100	0.07890
484.600	0.11970
620.800	0.16150
849.900	0.24830
1028.000	0.33940
1146.000	0.43520
1191.000	0.53620
1152.000	0.64260
1107.000	0.69810
1011.000	0.75500
880.800	0.81370
687.200	0.87400
418.100	0.93610
232.500	0.96780

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Fischer K.; Gmehling J.: Vapor-liquid equilibria, activity coefficients at infinite dilution and heats of mixing for mixtures of N-methyl pyrrolidone-2 with C5 or C6 hydrocarbons and for hydrocarbon mixtures. Fluid Phase Equilib. 119 (1996) 113-130

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	592-41-6	1-Hexene
2	C_5H_9NO	99.133	872-50-4	N-Methyl-2-pyrrolidone

Miscibility gap: No

Constant Value

Temperature	416.290	K
Pressure	24.000	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
175.300	0.03900
332.900	0.07890
484.200	0.11970
616.600	0.16150
844.500	0.24830
1024.000	0.33940
1141.000	0.43520
1187.000	0.53620
1151.000	0.64260
1101.000	0.69810
1010.000	0.75500
881.200	0.81370
690.500	0.87400
691.100	0.87400
408.600	0.93610
405.100	0.93610
223.400	0.96780
222.000	0.96780

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Fischer K.; Gmehling J.: Vapor-liquid equilibria, activity coefficients at infinite dilution and heats of mixing for mixtures of N-methyl pyrrolidone-2 with C5 or C6 hydrocarbons and for hydrocarbon mixtures. Fluid Phase Equilib. 119 (1996) 113-130

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_6H_{12}	84.161	592-41-6	1-Hexene
2	C_4H_8O	72.107	109-99-9	Tetrahydrofuran

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
67.500	0.05010
127.100	0.09700
186.500	0.15070
230.000	0.19940
271.600	0.25010
304.900	0.30030
329.800	0.34990
349.000	0.39990
359.300	0.45000
366.500	0.49770
363.600	0.54940
353.300	0.60060
337.800	0.64900
318.200	0.69050
282.300	0.74990
245.400	0.79990
197.200	0.85010
140.100	0.89950
75.500	0.95000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Lan C.Q.; Kodama D.; Wang Z.; Lu B.C.-Y.: Excess molar enthalpies of the ternary mixtures (1-hexene + tetrahydrofuran or 2-methyltetrahydrofuran + methyl tert-butyl ether) at the temperature 298.15 K. J.Chem.Thermodyn. 38 (2006) 1606-1611

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	C_5H_9NO	99.133	872-50-4	N-Methyl-2-pyrrolidone

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-221.000	0.11400
-378.500	0.20700
-433.000	0.24300
-596.000	0.39500
-642.800	0.56600
-519.500	0.72400
-277.300	0.86700
-67.700	0.96600
-61.400	0.97200
-26.600	0.98700

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Joly R.-D.; Mermet-Dupin M.: Enthalpies de mélange du binaire N-méthylpyrrolidone-méthanol à 25 et 35°C. C.R.Seanc.Acad.Sci.Ser.C Sci.Chim. 280 (1975) 1363-1365

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	C_5H_9NO	99.133	872-50-4	N-Methyl-2-pyrrolidone

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-229.500	0.11400
-389.700	0.20700
-431.200	0.24300
-632.000	0.39500
-643.600	0.56600
-523.400	0.72400
-271.100	0.86700
-65.200	0.96600
-58.500	0.97200
-24.400	0.98700

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Joly R.-D.; Mermet-Dupin M.: Enthalpies de mélange du binaire N-méthylpyrrolidone-méthanol à 25 et 35°C. C.R.Seanc.Acad.Sci.Ser.C Sci.Chim. 280 (1975) 1363-1365

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	C_5H_9NO	99.133	872-50-4	N-Methyl-2-pyrrolidone

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-18.600	0.00830
-37.400	0.01660
-141.800	0.06640
-264.900	0.12950
-453.600	0.24840
-648.200	0.43200
-588.100	0.65980
-551.600	0.69340
-297.200	0.86980
-157.300	0.93870
-82.850	0.96990
-42.500	0.98490
-21.740	0.99240
-10.990	0.99600

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Murakami S.; Tanaka R.; Fujishiro R.: I. Enthalpies of Transfer of 1-Methyl-2-pyrrolidinone from Water to Aqueous Methanol. J.Solution Chem. 3 (1974) 71-79

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	$C_4H_8O_2S$	120.172	126-33-0	Sulfolane

Miscibility gap: No

Constant Value

Temperature 303.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
485.668	0.10000
1025.770	0.21200
1431.890	0.40100
1519.810	0.43700
1553.300	0.60300
1423.510	0.69700
1193.240	0.79900
263.768	0.96800

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Tommila E.; Lindell E.; Virtalaine M.-L.; Laakso R.: Densities, Viscosities, Surface Tensions, Dielectric Constants, Vapour Pressures, Activities, and Heats of Mixing of Sulpholane-Water, Sulpholane-Methanol, and Sulpholane-Ethanol Mixtures. Suom.Kemistil. 42 (1969) 95-104

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	C_4H_8O	72.107	109-99-9	Tetrahydrofuran

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
171.659	0.07170
205.153	0.08690
272.142	0.13130
301.449	0.14950
380.999	0.20180
431.240	0.23940
427.053	0.24150
468.921	0.30280
485.669	0.35010
489.855	0.38720
494.042	0.41880
494.042	0.44370
489.855	0.47910
481.482	0.52040
447.988	0.57040
422.867	0.62630
355.878	0.69880
242.834	0.79660
96.296	0.91070

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Arm H.; Bankay D.; Schaller R.; Waelti M.: Systeme Tetrahydrofuran-Diäthyläther und Methanol-Tetrahydrofuran bei 25°. Helv.Chim.Acta 49 (1966) 2598-2605

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	C_4H_8O	72.107	109-99-9	Tetrahydrofuran

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
91.689	0.03130
225.459	0.08310
343.486	0.13970
337.361	0.14000
463.399	0.23430
524.418	0.31390
539.487	0.39730
539.517	0.40900
541.466	0.45570
527.359	0.51360
483.809	0.57760
402.727	0.66730
314.354	0.75340
254.300	0.79790
234.567	0.81030
169.224	0.85970

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Matous J.; Zivny A.; Biros J.: Thermodynamic Mixing Functions of the System Tetrahydrofuran (1)-Methanol (2). Collect.Czech.Chem.Commun. 37 (1972) 3960-3964

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	C_4H_8O	72.107	109-99-9	Tetrahydrofuran

Miscibility gap: No

Constant Value

Temperature 307.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
290.583	0.10830
384.561	0.15360
480.229	0.22500
556.133	0.34180
572.084	0.34840
559.470	0.44430
564.083	0.49140
539.713	0.53420
433.454	0.65720
324.348	0.75260
243.723	0.81640
235.137	0.81970
128.418	0.89650

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Matous J.; Zivny A.; Biros J.: Thermodynamic Mixing Functions of the System Tetrahydrofuran (1)-Methanol (2). Collect.Czech.Chem.Commun. 37 (1972) 3960-3964

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	H_2O	18.015	7732-18-5	Water

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-481.200	0.07800
-663.500	0.12750
-835.800	0.20400
-881.600	0.27300
-851.700	0.42350
-843.100	0.45200
-808.400	0.51100
-782.400	0.52700
-728.800	0.58750
-629.500	0.68700
-468.000	0.79550

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Abello L.: Enthalpies d'excès des systèmes binaires constitués d'hydrocarbures benzéniques et du chloroforme ou du méthylchloroforme. J.Chim.Phys.Phys.-Chim.Biol. 70 (1973) 1355-1359

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	H_2O	18.015	7732-18-5	Water

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-256.232	0.90400
-221.900	0.92000
-192.593	0.93200
-183.382	0.93600
-115.556	0.95900
-75.362	0.97500
-51.916	0.98300
-23.153	0.99300
-14.277	0.99600

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Belousov V.P.; Panov M.Yu.: XI. Lösungsenthalpie des Wassers in den Alkoholen. Vestn.Leningr.Univ.Fiz.Khim. 10 (1976) 149-150

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	H_2O	18.015	7732-18-5	Water

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-200.003	0.02920
-499.904	0.08310
-584.059	0.10290
-607.923	0.10910
-784.188	0.17250
-830.661	0.20450
-888.857	0.29490
-886.345	0.32220
-869.179	0.38640
-819.357	0.47860
-722.223	0.59780
-637.649	0.67850
-516.232	0.76840
-351.272	0.86140
-136.699	0.95280

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Benjamin L.; Benson G.C.: A Deuterium Isotope Effect on the Excess Enthalpy of Methanol Water Solutions. J.Phys.Chem. 67 (1963) 858-861

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	C_8H_{10}	106.167	108-38-3	m-Xylene

Miscibility gap: No

Constant Value

Temperature 298.200 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
419.200	0.06560
530.500	0.09230
675.100	0.15770
733.900	0.23300
742.200	0.29750
742.200	0.32730
727.500	0.41280
699.700	0.48110
633.300	0.56990
529.400	0.68130
434.200	0.76180
323.200	0.84110
230.400	0.89540
133.400	0.94330

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Letcher T.M.; Prasad A.K.; Schoonbaert F.E.Z.; Mercer-Chalmers J.: Excess enthalpies of (a xylene + an alkanol) at 298.2 K. J.Chem.Thermodyn. 22 (1990) 765-770

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	C_8H_{10}	106.167	106-42-3	p-Xylene

Miscibility gap: No

Constant Value

Temperature	298.150	K
Pressure	1.700	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]	h^E [J/mol]	x_1 [mol/mol]
482.900	0.05740	628.400	0.56310
637.700	0.11350	629.400	0.56320
682.900	0.15300	626.500	0.56360
689.400	0.15810	613.100	0.58450
717.100	0.19260	576.600	0.62650
717.700	0.19700	531.700	0.66330
736.000	0.22530	532.500	0.66770
743.300	0.23940	431.400	0.74370
744.400	0.25640	433.100	0.75080
747.900	0.28600	354.200	0.81100
745.800	0.28670	342.200	0.81880
744.400	0.29140	263.600	0.86980
747.500	0.31420	250.300	0.87550
742.300	0.34370	221.400	0.89310
742.300	0.34810	174.800	0.91820
735.900	0.36450	162.400	0.92340
721.600	0.39810	86.500	0.96280
716.000	0.42910	79.800	0.96440
684.400	0.47850		
686.500	0.48660		
674.200	0.50370		
656.900	0.52820		
650.600	0.53810		

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Christensen J.J.; Rossiter B.E.; O'Neill T.K.; Hanks R.W.: The Excess Enthalpies of Six p-Xylene + Alcohol Mixtures at 298.15 K. J.Chem.Thermodyn. 10 (1978) 829-833

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	C_8H_{10}	106.167	106-42-3	p-Xylene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
433.100	0.04620
587.300	0.09910
671.900	0.16010
710.600	0.22280
723.500	0.27970
714.200	0.36710
665.800	0.48260
574.700	0.60690
508.000	0.67560
465.800	0.71860
430.600	0.74340
414.300	0.76050
356.700	0.80300
286.500	0.84980
213.700	0.89380
126.100	0.94130
46.400	0.97960

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Nagata I.; Ogasawara Y.: Prediction of Ternary Excess Enthalpies from Binary Data.. Thermochim.Acta 52 (1982) 155-168

No.	Formula	Molar Mass	CAS Registry Number	Name
1	CH_4O	32.042	67-56-1	Methanol
2	C_8H_{10}	106.167	106-42-3	p-Xylene

Miscibility gap: No

Constant Value

Temperature 298.200 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
520.500	0.08640
617.400	0.12460
689.600	0.18260
715.000	0.25700
720.800	0.28580
715.000	0.32610
709.400	0.34810
705.300	0.39420
680.500	0.43840
615.700	0.56320
526.800	0.65810
465.900	0.70660
376.100	0.78140
227.200	0.88260
139.500	0.93200

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Letcher T.M.; Prasad A.K.; Schoonbaert F.E.Z.; Mercer-Chalmers J.: Excess enthalpies of (a xylene + an alkanol) at 298.2 K. J.Chem.Thermodyn. 22 (1990) 765-770

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_4H_8O	72.107	109-99-9	Tetrahydrofuran
2	H_2O	18.015	7732-18-5	Water

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]	h^E [J/mol]	x_1 [mol/mol]
-38.470	0.00260	-702.900	0.20150
-77.090	0.00530	-695.100	0.21170
-149.500	0.01060	-688.800	0.21550
-211.700	0.01540	-684.400	0.22170
-333.200	0.02610	-673.300	0.23130
-429.300	0.03620	-669.400	0.23270
-536.300	0.05090	-646.000	0.25290
-614.800	0.06640	-635.700	0.25890
-659.200	0.07910	-633.600	0.26200
-699.900	0.09700	-625.000	0.26800
-717.900	0.11000	-600.800	0.28310
-719.300	0.11380	-554.100	0.31270
-725.000	0.12100	-469.500	0.36230
-728.400	0.12260	-380.200	0.41140
-728.100	0.12600	-255.200	0.47660
-730.400	0.13150	-81.590	0.56510
-734.200	0.13880	67.180	0.64390
-732.300	0.13960	152.600	0.69500
-732.500	0.14630	195.400	0.72270
-734.100	0.15060	234.900	0.75150
-731.600	0.15370	303.900	0.82980
-731.100	0.16210	306.000	0.83610
-728.000	0.16490	309.100	0.85160
-723.300	0.17440	308.600	0.85860
-723.700	0.17690	285.700	0.90030
-716.400	0.18500	284.900	0.90130
-716.300	0.18770	199.500	0.94800
-707.700	0.19830	196.400	0.94900
-705.000	0.20150		

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Costigan M.J.; Hodges L.J.; Marsh K.N.; Stokes R.H.; Tuxford C.W.: Design Modifications for Measuring Exothermic Enthalpies of Mixing. Aust.J.Chem. 33 (1980) 2103-2119

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_4H_8O	72.107	109-99-9	Tetrahydrofuran
2	H_2O	18.015	7732-18-5	Water

Miscibility gap: No

Constant Value

Temperature 283.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-139.400	0.00820
-323.500	0.02050
-472.600	0.03230
-557.300	0.04060
-655.900	0.05190
-725.600	0.06150
-772.400	0.07130
-810.100	0.07960
-893.000	0.11720
-903.000	0.14840
-895.600	0.18250
-867.600	0.21550
-793.000	0.27080
-643.600	0.35680
-385.100	0.48800
-171.300	0.59900
34.500	0.70360
167.800	0.77990
217.700	0.82490
235.900	0.85730
240.300	0.88010
225.200	0.91540
162.400	0.95400

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Glew D.N.; Watts H.: Part XII. Enthalpies of Mixing of Water and Deuterium Oxide with Tetrahydrofuran. Can.J.Chem. 51 (1973) 1933-1940

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_4H_8O	72.107	109-99-9	Tetrahydrofuran
2	H_2O	18.015	7732-18-5	Water

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-57.830	0.00390
-118.200	0.00820
-242.000	0.01770
-345.400	0.02800
-415.000	0.03290
-469.000	0.04190
-538.500	0.05060
-585.400	0.05870
-613.200	0.06660
-646.600	0.07250
-667.400	0.08030
-707.400	0.10070
-723.400	0.11500
-733.500	0.15220
-716.900	0.17920
-693.000	0.21580
-616.000	0.27450
-485.500	0.35620
-362.400	0.42430
-117.200	0.54690
98.600	0.66080
155.900	0.69760
227.500	0.74490
271.300	0.78450
297.800	0.80850
306.600	0.84850
306.500	0.86780
288.300	0.90390
244.800	0.93030
172.800	0.95740

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Glew D.N.; Watts H.: Part XII. Enthalpies of Mixing of Water and Deuterium Oxide with Tetrahydrofuran. Can.J.Chem. 51 (1973) 1933-1940

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_4H_8O	72.107	109-99-9	Tetrahydrofuran
2	C_8H_{10}	106.167	106-42-3	p-Xylene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-126.860	0.15830
-142.351	0.21950
-196.780	0.28750
-217.714	0.32970
-241.160	0.39500
-251.208	0.44710
-260.837	0.50110
-260.419	0.56000
-230.693	0.69110
-124.348	0.86470

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Mahl B.S.; Kooner Z.S.; Khurma J.R.: Thermodynamic Evidence for Complex Formation between Tetrahydrofuran and Aromatic Hydrocarbons. J.Chem.Eng.Data 23 (1978) 150-152

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_4H_8O	72.107	109-99-9	Tetrahydrofuran
2	C_8H_{10}	106.167	106-42-3	p-Xylene

Miscibility gap: No

Constant Value

Temperature	298.150	K
Pressure	1.010	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
-34.700	0.05960
-70.200	0.11240
-101.200	0.15970
-132.500	0.20210
-180.400	0.27540
-218.000	0.33630
-254.300	0.43180
-269.000	0.50330
-262.300	0.60320
-234.700	0.69510
-206.600	0.75250
-159.000	0.82020
-130.700	0.85880
-93.400	0.90120
-47.800	0.94800
-24.100	0.97330

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Francesconi R.; Lunelli B.; Comelli F.: Excess Molar Enthalpies and Excess Molar Volumes of Binary Mixtures containing p-Xylene + Cyclic Ethers. Thermochim.Acta 207 (1992) 45-52

No.	Formula	Molar Mass	CAS Registry Number	Name
1	H_2O	18.015	7732-18-5	Water
2	$C_4H_8O_2S$	120.172	126-33-0	Sulfolane

Miscibility gap: No

Constant Value

Temperature 303.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
339.131	0.05700
435.427	0.07600
657.327	0.12100
774.558	0.14500
962.964	0.20500
1163.930	0.29400
1214.170	0.36000
1226.730	0.37700
1260.230	0.46100
1218.360	0.52100
1055.070	0.61500
870.854	0.70300
678.261	0.80100
305.636	0.91900

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Benoit R.L.; Choux G.: III. Etude des interactions eau-sulfolane. Can.J.Chem. 46 (1968) 3215-3219

No.	Formula	Molar Mass	CAS Registry Number	Name
1	H_2O	18.015	7732-18-5	Water
2	$C_4H_8O_2S$	120.172	126-33-0	Sulfolane

Miscibility gap: No
Constant Value

Temperature 303.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
586.152	0.09900
962.964	0.24800
1101.130	0.37500
1168.120	0.46400
1101.130	0.54200
942.030	0.64200
774.558	0.75400
489.855	0.84500

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Tommila E.; Lindell E.; Virtalaine M.-L.; Laakso R.: Densities, Viscosities, Surface Tensions, Dielectric Constants, Vapour Pressures, Activities, and Heats of Mixing of Sulpholane-Water, Sulpholane-Methanol, and Sulpholane-Ethanol Mixtures. Suom.Kemistil. 42 (1969) 95-104

No.	Formula	Molar Mass	CAS Registry Number	Name
1	H_2O	18.015	7732-18-5	Water
2	$C_4H_8O_2S$	120.172	126-33-0	Sulfolane

Miscibility gap: No

Constant Value

Temperature	413.150	K
Pressure	18.200	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
405.000	0.06210
712.000	0.11830
1188.000	0.21590
1696.000	0.36760
1855.000	0.48000
1861.000	0.56670
1789.000	0.63550
1676.000	0.69150
1546.000	0.73800
1409.000	0.77720
1140.000	0.83950
1010.000	0.86480
883.000	0.88700
758.000	0.90670
638.000	0.92430
524.000	0.94010
412.000	0.95440
304.000	0.96740
199.000	0.97920
97.000	0.99000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Horstmann S.; Fischer K.; Gmehling J.: Isothermal Vapor-Liquid Equilibrium and Excess Enthalpy Data for the Binary Systems Water + Sulfolane and Methanol + N-Methyl-2-pyrrolidone. J.Chem.Eng.Data 49 (2004) 1499-1503

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_8H_{10}	106.167	106-42-3	p-Xylene
2	C_8H_{10}	106.167	108-38-3	m-Xylene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-0.879	0.03510
-1.424	0.05170
-2.470	0.09830
-3.140	0.12690
-3.936	0.16660
-4.605	0.20280
-5.317	0.24650
-5.820	0.28560
-6.238	0.32090
-6.531	0.35280
-6.824	0.39550
-6.950	0.42090
-7.076	0.45530
-7.118	0.47100
-7.159	0.48100
-7.118	0.49920
-7.076	0.51350
-7.034	0.53920
-6.866	0.57980
-6.699	0.61290
-6.531	0.63450
-6.322	0.65780
-5.987	0.69160
-5.401	0.73910
-4.940	0.77090
-4.354	0.80550
-3.391	0.85670
-2.512	0.89970
-1.884	0.93080
-0.921	0.96420

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Holt D.L.; Smith B.D.: Measurement of Excess Enthalpies with Tronac Titration Calorimeter. Data for Some C8 Aromatic Binaries. J.Chem.Eng.Data 19 (1974) 129-133

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_8H_{10}	106.167	106-42-3	p-Xylene
2	C_8H_{10}	106.167	108-38-3	m-Xylene

Miscibility gap: No

Constant Value

Temperature 298.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
-1.300	0.03980
-1.200	0.04420
-2.600	0.08690
-2.800	0.10240
-4.000	0.15360
-4.400	0.18280
-5.700	0.23960
-5.800	0.25990
-6.600	0.30950
-6.800	0.33670
-7.200	0.38360
-7.500	0.40960
-7.700	0.43250
-7.500	0.44820
-7.600	0.44990
-7.600	0.48730
-7.700	0.50280
-7.500	0.54510
-7.500	0.56350
-7.300	0.60840
-6.800	0.62860
-6.600	0.67620
-5.900	0.69760
-5.600	0.74890
-5.700	0.76990
-4.100	0.83420
-4.000	0.84570
-2.600	0.90690
-2.600	0.91660
-1.000	0.96210
-1.100	0.96660

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Lam V.T.; Murakami S.; Benson G.C.: III. Excess Enthalpies and Volumes of Isomeric Xylene Mixtures at 25°C. J.Chem.Thermodyn. 2 (1970) 17-25

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_5H_9NO	99.133	872-50-4	N-Methyl-2-pyrrolidone
2	C_8H_{10}	106.167	108-38-3	m-Xylene

Miscibility gap: No

Constant Value

Temperature 308.150 K

Data Table

h^E [J/mol]	x_1 [mol/mol]
192.600	0.10000
301.200	0.20000
342.000	0.30000
331.600	0.40000
285.300	0.50000
217.800	0.60000
142.900	0.70000
73.600	0.80000
22.200	0.90000

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Chhikara Y.; Yadav J.S.; Sharma D.; Sharma V.K.: Excess Molar Volumes, Excess Molar Enthalpies, and Excess Isentropic Compressibilities of Binary Mixtures Containing N-Methyl-2-Pyrrolidone and Isomeric Xylenes at 308.15 K. J.Solution Chem. 41 (2012) 1696-1712

No.	Formula	Molar Mass	CAS Registry Number	Name
1	C_8H_{10}	106.167	106-42-3	p-Xylene
2	C_5H_9NO	99.133	872-50-4	N-Methyl-2-pyrrolidone

Miscibility gap: No

Constant Value

Temperature	363.150	K
Pressure	7.000	bar

Data Table

h^E [J/mol]	x_1 [mol/mol]
20.517	0.08000
20.384	0.08000
44.051	0.16370
44.154	0.16370
71.109	0.25120
98.440	0.34290
125.702	0.43910
152.734	0.54010
172.184	0.64620
174.951	0.75790
162.248	0.81600
152.612	0.84570
137.346	0.87570
116.064	0.90610
87.836	0.93700
49.704	0.96830

(h^E - excess enthalpy, x - liquid mole fraction)

Reference

Source

Gmehling J.; Meents B.: Excess Enthalpies of 1-Methyl-2-pyrrolidinone + Cyclohexane, + Benzene, + Toluene, or + 1,4-Dimethylbenzene. Int.Data Series Sel.Data Mixtures Ser. A 1992 (1992) 210-213