Diethyl adipate

Other names:	1,6-Diethyl hexanedioate
	Adipic acid, diethyl ester
	DIETHYL HEXANEDIOATE
	Diethylester kyseliny adipove
	Ethyl adipate
	Ethyl «delta»-carboethoxyvalerate
	Ethyl Â«deltaÂ»-carboethoxyvalerate
	Hexanedioic acid, 1,6-diethyl ester
	Hexanedioic acid, diethyl ester
	NSC 19160
	diethyl 1,6-hexanedioate
Inchi:	InChI=1S/C10H18O4/c1-3-13-9(11)7-5-6-8-10(12)14-4-2/h3-8H2,1-2H3
InchiKey:	VIZORQUEIQEFRT-UHFFFAOYSA-N
Formula:	C10H18O4
SMILES:	CCOC(=O)CCCCC(=O)OCC
Mol. weight [g/mol]:	202.25
CAS:	141-28-6

Physical Properties

Property code	Value	Unit	Source
gf	-434.52	kJ/mol	Joback Method
hf	-739.33	kJ/mol	Joback Method
hfus	27.23	kJ/mol	Joback Method
hvap	56.17	kJ/mol	Joback Method
log10ws	-1.68		Aqueous Solubility Prediction Method
logp	1.673		Crippen Method
mcvol	166.640	ml/mol	McGowan Method
pc	2298.11	kPa	Joback Method
rinpol	1383.00		NIST Webbook
rinpol	1345.50		NIST Webbook
rinpol	1349.00		NIST Webbook
rinpol	1386.00		NIST Webbook
rinpol	1396.00		NIST Webbook
rinpol	1354.00		NIST Webbook
rinpol	1353.00		NIST Webbook
rinpol	1352.00		NIST Webbook

rinpol	1350.00		NIST Webbook
rinpol	1368.00		NIST Webbook
rinpol	1352.00		NIST Webbook
rinpol	1383.00		NIST Webbook
rinpol	1396.00		NIST Webbook
rinpol	1344.00		NIST Webbook
rinpol	1358.00		NIST Webbook
rinpol	1368.00		NIST Webbook
rinpol	1368.00		NIST Webbook
rinpol	1349.00		NIST Webbook
rinpol	1354.00		NIST Webbook
rinpol	1345.50		NIST Webbook
rinpol	1352.00		NIST Webbook
rinpol	1344.00		NIST Webbook
rinpol	1353.60		NIST Webbook
ripol	1897.00		NIST Webbook
ripol	1897.00		NIST Webbook
ripol	1858.00		NIST Webbook
ripol	1858.00		NIST Webbook
tb	524.20	K	NIST Webbook
tb	406.95	K	KDB
tb	518.30	K	Liquid-liquid equilibria of (water + butyric acid + diethyl succinate or diethyl glutarate or diethyl adipate) ternary systems
tb	518.40	K	(Liquid + liquid) equilibria of (water + propionic acid + diethyl succinate or diethyl glutarate or diethyl adipate) ternary systems
tb	518.35	K	Liquid-Liquid Equilibria of (Water + Acetic Acid + Diethyl Succinate or Diethyl Glutarate or Diethyl Adipate) Ternary Systems
tc	697.00	K	Critical temperatures and pressures of some dicarboxylic acid diethyl esters
tf	253.35	K	KDB
tf	239.70 ± 0.60	K	NIST Webbook
tf	251.00 ± 2.00	K	NIST Webbook
tf	253.25 ± 0.50	K	NIST Webbook
tf	253.88	K	Aqueous Solubility Prediction Method
vc	0.643	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	415.69	J/mol×K	580.78	Joback Method
cpg	428.88	J/mol×K	610.80	Joback Method
cpg	441.54	J/mol×K	640.81	Joback Method
cpg	453.66	J/mol×K	670.83	Joback Method
cpg	465.23	J/mol×K	700.84	Joback Method
cpg	476.26	J/mol×K	730.86	Joback Method
cpg	486.74	J/mol×K	760.87	Joback Method
dvisc	0.0009400	Pa×s	373.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0045700	Pa×s	283.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0035100	Pa×s	293.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0039900	Pa×s	288.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)

dvisc	0.0027900	Pa×s	303.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0025100	Pa×s	308.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0022800	Pa×s	313.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0020700	Pa×s	318.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0019000	Pa×s	323.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)

dvisc	0.0017500	Pa×s	328.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0016100	Pa×s	333.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0014900	Pa×s	338.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0013900	Pa×s	343.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0012900	Pa×s	348.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)

dvisc	0.0012100	Pa×s	353.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)	
dvisc	0.0011300	Pa×s	358.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)	
dvisc	0.0010600	Pa×s	363.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)	
dvisc	0.0010000	Pa×s	368.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)	
dvisc	0.0031200	Pa×s	298.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)	
hvapt	57.50	kJ/mol	430.00	NIST Webbook	
pvap	0.02	kPa	329.60	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids	

pvap	3.43e-03	kPa	308.20	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids	
pvap	5.23e-03	kPa	313.30	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids	
pvap	7.93e-03	kPa	318.20	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids	
pvap	0.01	kPa	323.10	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids	
pvap	0.11	kPa	352.20	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids	
pvap	2.20e-03	kPa	303.50	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids	
pvap	0.03	kPa	333.20	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids	

pvap	0.03	kPa	335.20	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	0.04	kPa	338.20	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	0.05	kPa	340.20	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	0.06	kPa	343.20	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	0.07	kPa	346.20	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	0.09	kPa	349.10	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	0.02	kPa	328.20	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids

sdco	0.00	m2/s	293.43	Self-diffusivity measurements of dimethyl, diethyl, dipropyl, dibutyl, Bis(2-ethylhexyl) adipates from (293 - 339) K by a PGSE-NMR spin-echo technique
sdco	0.00	m2/s	302.44	Self-diffusivity measurements of dimethyl, diethyl, dipropyl, dibutyl, Bis(2-ethylhexyl) adipates from (293 - 339) K by a PGSE-NMR spin-echo technique
sdco	0.00	m2/s	311.45	Self-diffusivity measurements of dimethyl, diethyl, dipropyl, dibutyl, Bis(2-ethylhexyl) adipates from (293 - 339) K by a PGSE-NMR spin-echo technique
sdco	0.00	m2/s	320.46	Self-diffusivity measurements of dimethyl, diethyl, dipropyl, dibutyl, Bis(2-ethylhexyl) adipates from (293 - 339) K by a PGSE-NMR spin-echo technique
sdco	0.00	m2/s	329.45	Self-diffusivity measurements of dimethyl, diethyl, dipropyl, dibutyl, Bis(2-ethylhexyl) adipates from (293 - 339) K by a PGSE-NMR spin-echo technique
sdco	0.00	m2/s	338.47	Self-diffusivity measurements of dimethyl, diethyl, dipropyl, dibutyl, Bis(2-ethylhexyl) adipates from (293 - 339) K by a PGSE-NMR spin-echo technique

srf	0.03	N/m	318.15	Surface tension of diethyl carbonate, 1,2-dimethoxyethane and diethyl adipate
srf	0.03	N/m	298.09	Surface tension of diethyl carbonate, 1,2-dimethoxyethane and diethyl adipate
srf	0.03	N/m	303.17	Surface tension of diethyl carbonate, 1,2-dimethoxyethane and diethyl adipate
srf	0.03	N/m	308.11	Surface tension of diethyl carbonate, 1,2-dimethoxyethane and diethyl adipate
srf	0.03	N/m	313.18	Surface tension of diethyl carbonate, 1,2-dimethoxyethane and diethyl adipate
srf	0.03	N/m	293.16	Surface tension of diethyl carbonate, 1,2-dimethoxyethane and diethyl adipate
srf	0.03	N/m	323.17	Surface tension of diethyl carbonate, 1,2-dimethoxyethane and diethyl adipate
srf	0.03	N/m	328.12	Surface tension of diethyl carbonate, 1,2-dimethoxyethane and diethyl adipate
srf	0.03	N/m	333.16	Surface tension of diethyl carbonate, 1,2-dimethoxyethane and diethyl adipate
srf	0.03	N/m	338.16	Surface tension of diethyl carbonate, 1,2-dimethoxyethane and diethyl adipate

srf	0.03	N/m	343.15	Surface tension of diethyl carbonate, 1,2-dimethoxyethane and diethyl adipate
srf	0.03	N/m	348.13	Surface tension of diethyl carbonate, 1,2-dimethoxyethane and diethyl adipate
srf	0.03	N/m	353.16	Surface tension of diethyl carbonate, 1,2-dimethoxyethane and diethyl adipate
srf	0.03	N/m	358.13	Surface tension of diethyl carbonate, 1,2-dimethoxyethane and diethyl adipate
srf	0.03	N/m	363.13	Surface tension of diethyl carbonate, 1,2-dimethoxyethane and diethyl adipate
srf	0.02	N/m	368.15	Surface tension of diethyl carbonate, 1,2-dimethoxyethane and diethyl adipate
srf	0.02	N/m	373.14	Surface tension of diethyl carbonate, 1,2-dimethoxyethane and diethyl adipate

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/T + C*ln(T) + D*T^2
Coeff. A	-5.74435e+01
Coeff. B	-3.29310e+03
Coeff. C	1.11549e+01
Coeff. D	-4.30055e-06
Temperature range (K), min.	347.15

Temperature range (K), max.	513.15

Datasets

Viscosity, Pa*s

Temperature, K - Liquid	Pressure, kPa - Liquid	Viscosity, Pa*s - Liquid
283.15	100.00	0.0045405
283.15	1000.00	0.0045895
283.15	5000.00	0.0047921
283.15	10000.00	0.0050621
283.15	15000.00	0.0053319
283.15	20000.00	0.0056216
283.16	30000.00	0.0062229
283.15	40000.00	0.0068866
293.15	100.00	0.0034862
293.15	1000.00	0.0035210
293.15	5000.00	0.0036723
293.15	10000.00	0.0038679
293.15	15000.00	0.0040747
293.15	20000.00	0.0042783
293.15	30000.00	0.0047218
293.15	40000.00	0.0051950
303.15	100.00	0.0027663
303.15	1000.00	0.0027923
303.15	5000.00	0.0029116
303.15	10000.00	0.0030629
303.15	15000.00	0.0032068
303.15	20000.00	0.0033610
303.15	30000.00	0.0036955
303.15	40000.00	0.0040422
313.15	100.00	0.0022525
313.16	1000.00	0.0022717
313.15	5000.00	0.0023617
313.15	10000.00	0.0024781
313.15	15000.00	0.0025970
313.15	20000.00	0.0027206
313.15	30000.00	0.0029780
313.15	40000.00	0.0032507

323.15	100.00	0.0018698
323.15	1000.00	0.0018858
323.15	5000.00	0.0019606
323.15	10000.00	0.0020537
323.15	15000.00	0.0021509
323.15	20000.00	0.0022485
323.15	30000.00	0.0024607
323.15	40000.00	0.0026798
333.15	100.00	0.0015793
333.15	1000.00	0.0015923
333.15	5000.00	0.0016529
333.15	10000.00	0.0017335
333.15	15000.00	0.0018143
333.15	20000.00	0.0018958
333.15	30000.00	0.0020658
333.15	40000.00	0.0022487
343.15	100.00	0.0013538
343.15	1000.00	0.0013672
343.15	5000.00	0.0014189
343.15	10000.00	0.0014873
343.15	15000.00	0.0015546
343.15	20000.00	0.0016241
343.15	30000.00	0.0017654
343.15	40000.00	0.0019172
353.15	100.00	0.0011765
353.14	1000.00	0.0011873
353.15	5000.00	0.0012326
353.15	10000.00	0.0012925
353.15	15000.00	0.0013512
353.15	20000.00	0.0014115
353.15	30000.00	0.0015345
353.15	40000.00	0.0016616
363.15	100.00	0.0010320
363.15	1000.00	0.0010410
363.15	5000.00	0.0010811
363.15	10000.00	0.0011328
363.15	15000.00	0.0011834
363.15	20000.00	0.0012363
363.15	30000.00	0.0013434
363.15	40000.00	0.0014533

Reference *https://www.doi.org/10.1007/s10765-019-2573-6*

Temperature, K	Pressure, kPa	Viscosity, Pa*s

303.15	100.00	0.0027860
303.15	4520.00	0.0029090
303.15	9610.00	0.0030610
303.15	14700.00	0.0032260
303.15	19790.00	0.0033430
313.15	100.00	0.0022570
313.15	4520.00	0.0023350
313.15	9630.00	0.0024720
313.15	14750.00	0.0025890
313.15	19890.00	0.0027260
323.15	100.00	0.0018460
323.15	4520.00	0.0019320
323.15	9600.00	0.0020210
323.15	14690.00	0.0021260
323.15	19710.00	0.0022300
333.15	100.00	0.0015800
333.15	4520.00	0.0016420
333.15	9630.00	0.0017160
333.15	14710.00	0.0018020
333.15	19710.00	0.0018860
343.15	100.00	0.0013500
343.15	4510.00	0.0014070
343.15	9600.00	0.0014710
343.15	14700.00	0.0015420
343.15	19700.00	0.0016080
353.15	100.00	0.0011790
353.15	4520.00	0.0012270
353.15	9620.00	0.0012800
353.15	14710.00	0.0013380
353.15	19680.00	0.0014020
363.15	100.00	0.0010410
363.15	4520.00	0.0010780
363.15	9610.00	0.0011290
363.15	14700.00	0.0011740
363.15	19710.00	0.0012260
373.15	100.00	0.0009140
373.15	4520.00	0.0009560
373.15	9620.00	0.0010000
373.15	14680.00	0.0010460
373.15	19910.00	0.0010960

Reference *https://www.doi.org/10.1021/je700740e*

Mass density, kg/m3

Temperature, K - Liquid	Pressure, kPa - Liquid	Mass density, kg/m3 - Liquid
293.15	100.00	1006.6
293.15	10000.00	1013.1
293.15	20000.00	1019.4
293.15	30000.00	1025.3
293.15	40000.00	1030.9
293.15	50000.00	1036.2
293.15	60000.00	1041.2
293.15	70000.00	1046.0
293.15	80000.00	1050.8
293.15	90000.00	1055.2
293.15	100000.00	1059.6
293.15	110000.00	1063.8
293.15	120000.00	1067.9
293.15	130000.00	1071.8
293.15	140000.00	1075.7
303.15	100.00	997.0
303.15	10000.00	1003.9
303.15	20000.00	1010.4
303.15	30000.00	1016.6
303.15	40000.00	1022.5
303.15	50000.00	1028.0
303.15	60000.00	1033.3
303.15	70000.00	1038.3
303.15	80000.00	1043.2
303.15	90000.00	1047.8
303.15	100000.00	1052.3
303.15	110000.00	1056.5
303.15	120000.00	1060.9
303.15	130000.00	1064.8
303.15	140000.00	1068.9
313.15	100.00	987.7
313.15	10000.00	994.9
313.15	20000.00	1001.8
313.15	30000.00	1008.3
313.15	40000.00	1014.3
313.15	50000.00	1020.1
313.15	60000.00	1025.6
313.15	70000.00	1030.8
313.15	80000.00	1035.9

313.15	90000.00	1040.7
313.15	100000.00	1045.1
313.15	110000.00	1049.5
313.15	120000.00	1053.9
313.15	130000.00	1058.1
313.15	140000.00	1062.1
323.15	100.00	978.3
323.15	10000.00	986.2
323.15	20000.00	993.4
323.15	30000.00	1000.1
323.15	40000.00	1006.4
323.15	50000.00	1012.4
323.15	60000.00	1018.0
323.15	70000.00	1023.4
323.15	80000.00	1028.6
323.15	90000.00	1033.6
323.15	100000.00	1038.3
323.15	110000.00	1042.8
323.15	120000.00	1047.4
323.15	130000.00	1051.6
323.15	140000.00	1055.8
333.15	100.00	969.0
333.15	10000.00	977.1
333.15	20000.00	984.8
333.15	30000.00	991.7
333.15	40000.00	998.3
333.15	50000.00	1004.6
333.15	60000.00	1010.4
333.15	70000.00	1016.0
333.15	80000.00	1021.3
333.15	90000.00	1026.4
333.15	100000.00	1031.3
333.15	110000.00	1035.9
333.15	120000.00	1040.4
333.15	130000.00	1045.0
333.15	140000.00	1049.3
343.15	100.00	959.8
343.15	10000.00	968.2
343.15	20000.00	976.1
343.15	30000.00	983.3
343.15	40000.00	990.3
343.15	50000.00	996.7
343.15	60000.00	1002.9
343.15	70000.00	1008.7

343.15	80000.00	1014.3
343.15	90000.00	1019.5
343.15	100000.00	1024.6
343.15	110000.00	1029.5
343.15	120000.00	1034.2
343.15	130000.00	1038.5
343.15	140000.00	1042.9
353.15	100.00	949.7
353.15	10000.00	958.7
353.15	20000.00	967.0
353.15	30000.00	974.8
353.15	40000.00	982.1
353.15	50000.00	989.0
353.15	60000.00	995.4
353.15	70000.00	1001.2
353.15	80000.00	1006.9
353.15	90000.00	1012.4
353.15	100000.00	1017.4
353.15	110000.00	1022.3
353.15	120000.00	1026.7
353.15	130000.00	1031.4
353.15	140000.00	1036.2
363.15	100.00	940.2
363.15	10000.00	949.9
363.15	20000.00	958.6
363.15	30000.00	966.6
363.15	40000.00	974.2
363.15	50000.00	981.3
363.15	60000.00	987.7
363.15	70000.00	994.0
363.15	80000.00	999.9
363.15	90000.00	1005.4
363.15	100000.00	1010.8
363.15	110000.00	1015.9
363.15	120000.00	1021.0
363.15	130000.00	1025.8
363.15	140000.00	1030.4
373.15	100.00	930.9
373.15	10000.00	940.9
373.15	20000.00	950.1
373.15	30000.00	958.8
373.15	40000.00	966.7
373.15	50000.00	973.6
373.15	60000.00	980.3

373.15	70000.00	986.7
373.15	80000.00	992.8
373.15	90000.00	998.7
373.15	100000.00	1004.1
373.15	110000.00	1009.3
373.15	120000.00	1014.3
373.15	130000.00	1019.3
373.15	140000.00	1023.9
383.15	100.00	921.3
383.15	10000.00	932.0
383.15	20000.00	941.7
383.15	30000.00	950.2
383.15	40000.00	958.5
383.15	50000.00	966.0
383.15	60000.00	973.0
383.15	70000.00	979.6
383.15	80000.00	986.0
383.15	90000.00	991.9
383.15	100000.00	997.6
383.15	110000.00	1003.0
383.15	120000.00	1008.3
383.15	130000.00	1013.1
383.15	140000.00	1017.8
393.15	100.00	911.6
393.15	10000.00	922.1
393.15	20000.00	932.2
393.15	30000.00	941.4
393.15	40000.00	949.8
393.15	50000.00	957.1
393.15	60000.00	964.3
393.15	70000.00	971.5
393.15	80000.00	978.0
393.15	90000.00	984.2
393.15	100000.00	990.1
393.15	110000.00	995.7
393.15	120000.00	1000.8
393.15	130000.00	1006.1
393.15	140000.00	1011.0
403.15	100.00	902.0
403.15	10000.00	912.7
403.15	20000.00	923.3
403.15	30000.00	933.2
403.15	40000.00	941.5
403.15	50000.00	949.8

403.15	60000.00	957.2
403.15	70000.00	964.4
403.15	80000.00	971.0
403.15	90000.00	977.3
403.15	100000.00	983.3
403.15	110000.00	989.0
403.15	120000.00	994.6
403.15	130000.00	999.7
403.15	140000.00	1004.7

Reference *https://www.doi.org/10.1021/je700737c*

Sources

Surface tension of diethyl carbonate, 1,2-dimethoxyethane and diethyl adipate:	https://www.doi.org/10.1016/j.fluid.2010.03.040
(liquid + liquid) equilibria of (water + propionic acid + diethyl succinate or diethyl glutarate or diethyl adipate) ternary systems:	https://www.doi.org/10.1016/j.jct.2007.03.004
Density of Diethyl Adipate using a New Vibrating Tube Densimeter from (293.15 to 403.15) K and up to 140 MPa:	https://www.doi.org/10.1021/je700737c
Mutual Diffusion Coefficients of Diethyl Carbonate and Diethyl Adipate in Heptane at T = (273.15 to 338.15) K under Atmospheric Pressure:	https://www.doi.org/10.1021/je900193m
Viscosity Measurements of Dialkyl Adipates in the Temperature Range of (289 to 369) K and up to 40 MPa:	https://www.doi.org/10.1007/s10765-019-2573-6
Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates):	https://www.doi.org/10.1021/je100237h
Critical temperatures and pressures of some dicarboxylic acid diethyl esters:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Self-diffusivity measurements of dimethyl, diethyl, dipropyl, dibutyl, Bis(2-ethylhexyl) adipates from (293 - 339) K by a PGSE-NMR spin-echo technique:	https://www.doi.org/10.1016/j.fluid.2015.12.031
Density and Viscosity Measurements of Diethyl Adipate from (303 to 373) K and up to 20 MPa:	https://www.doi.org/10.1016/j.fluid.2015.11.020
KDB Vapor Pressure Data:	https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=1118
Liquid-Liquid Equilibria of (Water + Acetic Acid + Diethyl Succinate or Diethyl Glutarate or Diethyl Adipate) Ternary Systems:	https://www.doi.org/10.1021/je700740e
Liquid-liquid equilibria of (water + butyric acid + diethyl succinate or diethyl glutarate or diethyl adipate) ternary systems:	https://www.doi.org/10.1021/je7000733
Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids:	https://www.doi.org/10.1016/j.fluid.2011.01.012
McCowan Method:	http://link.springer.com/article/10.1007/BF02311772
Joback Method:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C141286&Units=SI
Aqueous Solubility Prediction Method:	https://en.wikipedia.org/wiki/Joback_method
KDB:	https://www.doi.org/10.1021/je100231g
	https://en.wikipedia.org/wiki/Joback_method
	http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDa
	https://www.cheric.org/files/research/kdb/mol/mol1118.mol

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation

hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
hvapt:	Enthalpy of vaporization at a given temperature
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
rhol:	Liquid Density
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
sdco:	Self diffusion coefficient
srf:	Surface Tension
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

Latest version available from:

https://www.chemeo.com/cid/24-324-5/Diethyl-adipate.pdf

Generated by Cheméo on 2024-10-12 02:11:17.005897017 +0000 UTC m=+3279939.642866266.

Cheméo (https://www.chemeo.com) is the biggest free database of chemical and physical data for the process industry.