Hexanedioic acid, dimethyl ester

Other names:	1,6-Dimethylhexanedioate
	1,6-hexanedioic acid, dimethyl ester
	Adipic acid, dimethyl ester
	Dimethyl adipate
	Dimethyl ester of hexanedioic acid
	Dimethyl hexanedioate
	Hexanedioic acid, methyl ester
	Methyl adipate
	dimethyl 1,6-hexanedioate
Inchi:	InChI=1S/C8H14O4/c1-11-7(9)5-3-4-6-8(10)12-2/h3-6H2,1-2H3
InchiKey:	UDSFAEKRVUSQDD-UHFFFAOYSA-N
Formula:	C8H14O4
SMILES:	COC(=O)CCCCC(=O)OC
Mol. weight [g/mol]:	174.19
CAS:	627-93-0

Physical Properties

Property code	Value	Unit	Source
chl	-4286.20 ± 3.20	kJ/mol	NIST Webbook
chs	-4266.00	kJ/mol	NIST Webbook
gf	-451.36	kJ/mol	Joback Method
hf	-698.05	kJ/mol	Joback Method
hfl	-862.80 ± 3.20	kJ/mol	NIST Webbook
hfus	22.05	kJ/mol	Joback Method
hvap	69.00 ± 0.20	kJ/mol	NIST Webbook
hvap	67.10 ± 0.30	kJ/mol	NIST Webbook
hvap	73.40	kJ/mol	NIST Webbook
log10ws	-0.90		Crippen Method
logp	0.893		Crippen Method
mcvol	138.460	ml/mol	McGowan Method
pc	2500.00	kPa	Vapor Pressures, Enthalpies of Vaporization, and Critical Parameters of a Series of Linear Aliphatic Dimethyl Esters of Dicarboxylic Acids
rinpol	1242.00		NIST Webbook
rinpol	1243.00		NIST Webbook

rinpol	1213.00		NIST Webbook
rinpol	210.93		NIST Webbook
rinpol	211.70		NIST Webbook
rinpol	1213.00		NIST Webbook
rinpol	1223.00		NIST Webbook
rinpol	1212.00		NIST Webbook
rinpol	1243.00		NIST Webbook
rinpol	1206.00		NIST Webbook
rinpol	1241.00		NIST Webbook
rinpol	1207.00		NIST Webbook
rinpol	1205.00		NIST Webbook
rinpol	1204.00		NIST Webbook
rinpol	1202.00		NIST Webbook
rinpol	1234.00		NIST Webbook
rinpol	1223.00		NIST Webbook
rinpol	1206.00		NIST Webbook
rinpol	1246.00		NIST Webbook
rinpol	1206.00		NIST Webbook
rinpol	1235.00		NIST Webbook
rinpol	1256.00		NIST Webbook
rinpol	1243.00		NIST Webbook
rinpol	1205.00		NIST Webbook
rinpol	1213.00		NIST Webbook
rinpol	1246.70		NIST Webbook
rinpol	1213.00		NIST Webbook
rinpol	1212.00		NIST Webbook
rinpol	1211.00		NIST Webbook
rinpol	1215.00		NIST Webbook
rinpol	1206.00		NIST Webbook
rinpol	1206.00		NIST Webbook
rinpol	1208.20		NIST Webbook
rinpol	1204.00		NIST Webbook
ripol	1817.00		NIST Webbook
ripol	1779.00		NIST Webbook
ripol	1804.00		NIST Webbook
ripol	1819.00		NIST Webbook
ripol	1817.00		NIST Webbook
ripol	1809.00		NIST Webbook
ripol	1777.00		NIST Webbook
ripol	1779.00		NIST Webbook
tb	508.00 ± 4.00	K	NIST Webbook
tb	498.20	K	Liquid liquid equilibria of the ternary system water + acetic acid + dimethyl adipate

tc	718.73	K	Joback Method
tf	283.50 ± 0.60	K	NIST Webbook
tf	283.50 ± 1.00	K	NIST Webbook
vc	0.531	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	384.50	J/mol×K	718.73	Joback Method
cpg	365.50	J/mol×K	657.50	Joback Method
cpg	355.33	J/mol×K	626.88	Joback Method
cpg	344.72	J/mol×K	596.26	Joback Method
cpg	333.68	J/mol×K	565.64	Joback Method
cpg	375.23	J/mol×K	688.12	Joback Method
cpg	322.22	J/mol×K	535.02	Joback Method
dvisc	0.0018200	Pa×s	323.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0019900	Pa×s	318.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0016800	Pa×s	328.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)

dvisc	0.0015500	Pa×s	333.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0014400	Pa×s	338.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0013400	Pa×s	343.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0012500	Pa×s	348.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0011700	Pa×s	353.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)

dvisc	0.0011000	Pa×s	358.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)	
dvisc	0.0010300	Pa×s	363.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)	
dvisc	0.0009700	Pa×s	368.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)	
dvisc	0.0009200	Pa×s	373.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)	
dvisc	0.0021800	Pa×s	313.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)	

dvisc	0.0024000	Pa×s	308.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0026700	Pa×s	303.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0029800	Pa×s	298.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0033600	Pa×s	293.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)
dvisc	0.0038200	Pa×s	288.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)

dvisc	0.0043900	Pa×s	283.15	Influence of the Molecular Structure on the Volumetric Properties and Viscosities of Dialkyl Adipates (Dimethyl, Diethyl, and Diisobutyl Adipates)	
hvapt	58.80	kJ/mol	441.00	NIST Webbook	
hvapt	74.60	kJ/mol	398.00	NIST Webbook	
pvap	179.21	kPa	523.92	Isobaric Vapor-Liquid Equilibrium for the Binary System of Dimethyl Adipate and 1,6-Hexanediol at 10, 20, and 99 kPa	
pvap	68.77	kPa	488.62	Isobaric Vapor-Liquid Equilibrium for the Binary System of Dimethyl Adipate and 1,6-Hexanediol at 10, 20, and 99 kPa	
pvap	85.45	kPa	496.14	Isobaric Vapor-Liquid Equilibrium for the Binary System of Dimethyl Adipate and 1,6-Hexanediol at 10, 20, and 99 kPa	
pvap	108.77	kPa	504.86	Isobaric Vapor-Liquid Equilibrium for the Binary System of Dimethyl Adipate and 1,6-Hexanediol at 10, 20, and 99 kPa	
pvap	131.95	kPa	512.00	Isobaric Vapor-Liquid Equilibrium for the Binary System of Dimethyl Adipate and 1,6-Hexanediol at 10, 20, and 99 kPa	

pvap	157.68	kPa	518.78	Isobaric Vapor-Liquid Equilibrium for the Binary System of Dimethyl Adipate and 1,6-Hexanediol at 10, 20, and 99 kPa
pvap	54.37	kPa	480.72	Isobaric Vapor-Liquid Equilibrium for the Binary System of Dimethyl Adipate and 1,6-Hexanediol at 10, 20, and 99 kPa
pvap	216.30	kPa	531.44	Isobaric Vapor-Liquid Equilibrium for the Binary System of Dimethyl Adipate and 1,6-Hexanediol at 10, 20, and 99 kPa
pvap	10.00	kPa	431.20	Isobaric Vapor-Liquid Equilibrium for the Binary System of Dimethyl Adipate and 1,6-Hexanediol at 10, 20, and 99 kPa
pvap	20.00	kPa	450.08	Isobaric Vapor-Liquid Equilibrium for the Binary System of Dimethyl Adipate and 1,6-Hexanediol at 10, 20, and 99 kPa
pvap	99.00	kPa	501.00	Isobaric Vapor-Liquid Equilibrium for the Binary System of Dimethyl Adipate and 1,6-Hexanediol at 10, 20, and 99 kPa

pvap	2.53e-03	kPa	293.20	Thermodynamic Properties of Mixtures Containing Ionic Liquids. 7. Activity Coefficients of Aliphatic and Aromatic Esters and Benzylamine in 1-Methyl-3-ethylimidazolium Bis(trifluoromethylsulfonyl) Imide Using the Transpiration Method
pvap	3.36e-03	kPa	296.20	Thermodynamic Properties of Mixtures Containing Ionic Liquids. 7. Activity Coefficients of Aliphatic and Aromatic Esters and Benzylamine in 1-Methyl-3-ethylimidazolium Bis(trifluoromethylsulfonyl) Imide Using the Transpiration Method
pvap	4.43e-03	kPa	299.20	Thermodynamic Properties of Mixtures Containing Ionic Liquids. 7. Activity Coefficients of Aliphatic and Aromatic Esters and Benzylamine in 1-Methyl-3-ethylimidazolium Bis(trifluoromethylsulfonyl) Imide Using the Transpiration Method
pvap	5.86e-03	kPa	302.20	Thermodynamic Properties of Mixtures Containing Ionic Liquids. 7. Activity Coefficients of Aliphatic and Aromatic Esters and Benzylamine in 1-Methyl-3-ethylimidazolium Bis(trifluoromethylsulfonyl) Imide Using the Transpiration Method

pvap	7.40e-03	kPa	305.20	Thermodynamic Properties of Mixtures Containing Ionic Liquids. 7. Activity Coefficients of Aliphatic and Aromatic Esters and Benzylamine in 1-Methyl-3-ethylimidazolium Bis(trifluoromethylsulfonyl) Imide Using the Transpiration Method
pvap	9.91e-03	kPa	308.20	Thermodynamic Properties of Mixtures Containing Ionic Liquids. 7. Activity Coefficients of Aliphatic and Aromatic Esters and Benzylamine in 1-Methyl-3-ethylimidazolium Bis(trifluoromethylsulfonyl) Imide Using the Transpiration Method
pvap	0.01	kPa	310.20	Thermodynamic Properties of Mixtures Containing Ionic Liquids. 7. Activity Coefficients of Aliphatic and Aromatic Esters and Benzylamine in 1-Methyl-3-ethylimidazolium Bis(trifluoromethylsulfonyl) Imide Using the Transpiration Method
pvap	0.01	kPa	313.30	Thermodynamic Properties of Mixtures Containing Ionic Liquids. 7. Activity Coefficients of Aliphatic and Aromatic Esters and Benzylamine in 1-Methyl-3-ethylimidazolium Bis(trifluoromethylsulfonyl) Imide Using the Transpiration Method

pvap	0.02	kPa	316.20	Thermodynamic Properties of Mixtures Containing Ionic Liquids. 7. Activity Coefficients of Aliphatic and Aromatic Esters and Benzylamine in 1-Methyl-3-ethylimidazolium Bis(trifluoromethylsulfonyl) Imide Using the Transpiration Method
pvap	44.63	kPa	474.33	Isobaric Vapor-Liquid Equilibrium for the Binary System of Dimethyl Adipate and 1,6-Hexanediol at 10, 20, and 99 kPa
pvap	0.03	kPa	322.20	Thermodynamic Properties of Mixtures Containing Ionic Liquids. 7. Activity Coefficients of Aliphatic and Aromatic Esters and Benzylamine in 1-Methyl-3-ethylimidazolium Bis(trifluoromethylsulfonyl) Imide Using the Transpiration Method
pvap	0.04	kPa	325.30	Thermodynamic Properties of Mixtures Containing Ionic Liquids. 7. Activity Coefficients of Aliphatic and Aromatic Esters and Benzylamine in 1-Methyl-3-ethylimidazolium Bis(trifluoromethylsulfonyl) Imide Using the Transpiration Method

pvap	0.05	kPa	328.20	Thermodynamic Properties of Mixtures Containing Ionic Liquids. 7. Activity Coefficients of Aliphatic and Aromatic Esters and Benzylamine in 1-Methyl-3-ethylimidazolium Bis(trifluoromethylsulfonyl) Imide Using the Transpiration Method
pvap	0.06	kPa	331.20	Thermodynamic Properties of Mixtures Containing Ionic Liquids. 7. Activity Coefficients of Aliphatic and Aromatic Esters and Benzylamine in 1-Methyl-3-ethylimidazolium Bis(trifluoromethylsulfonyl) Imide Using the Transpiration Method
pvap	0.07	kPa	334.20	Thermodynamic Properties of Mixtures Containing Ionic Liquids. 7. Activity Coefficients of Aliphatic and Aromatic Esters and Benzylamine in 1-Methyl-3-ethylimidazolium Bis(trifluoromethylsulfonyl) Imide Using the Transpiration Method
pvap	0.51	kPa	353.15	Vapor-Liquid Equilibrium of Mixtures Containing Adipic Acid, Glutaric Acid, Dimethyl Adipate, Dimethyl Glutarate, Methanol, and Water

pvap	1.26	kPa	373.15	Vapor-Liquid Equilibrium of Mixtures Containing Adipic Acid, Glutaric Acid, Dimethyl Adipate, Dimethyl Glutarate, Methanol, and Water
pvap	1.92	kPa	383.15	Vapor-Liquid Equilibrium of Mixtures Containing Adipic Acid, Glutaric Acid, Dimethyl Adipate, Dimethyl Glutarate, Methanol, and Water
pvap	4.33	kPa	403.15	Vapor-Liquid Equilibrium of Mixtures Containing Adipic Acid, Glutaric Acid, Dimethyl Adipate, Dimethyl Glutarate, Methanol, and Water
pvap	5.93	kPa	413.15	Vapor-Liquid Equilibrium of Mixtures Containing Adipic Acid, Glutaric Acid, Dimethyl Adipate, Dimethyl Glutarate, Methanol, and Water
pvap	28.55	kPa	460.47	Isobaric Vapor-Liquid Equilibrium for the Binary System of Dimethyl Adipate and 1,6-Hexanediol at 10, 20, and 99 kPa
pvap	12.30	kPa	433.15	Vapor-Liquid Equilibrium of Mixtures Containing Adipic Acid, Glutaric Acid, Dimethyl Adipate, Dimethyl Glutarate, Methanol, and Water

pvap	16.66	kPa	443.15	Vapor-Liquid Equilibrium of Mixtures Containing Adipic Acid, Glutaric Acid, Dimethyl Adipate, Dimethyl Glutarate, Methanol, and Water
pvap	14.56	kPa	441.21	Isobaric Vapor-Liquid Equilibrium for the Binary System of Dimethyl Adipate and 1,6-Hexanediol at 10, 20, and 99 kPa
pvap	7.79	kPa	424.91	Isobaric Vapor-Liquid Equilibrium for the Binary System of Dimethyl Adipate and 1,6-Hexanediol at 10, 20, and 99 kPa
pvap	8.30	kPa	422.47	Isobaric vapor-liquid equilibrium of three binary systems containing dimethyl succinate, dimethyl glutarate and dimethyl adipate at 2, 5.2 and 8.3 kPa
pvap	5.20	kPa	410.82	Isobaric vapor-liquid equilibrium of three binary systems containing dimethyl succinate, dimethyl glutarate and dimethyl adipate at 2, 5.2 and 8.3 kPa

pvap	2.00	kPa	390.98	Isobaric vapor-liquid equilibrium of three binary systems containing dimethyl succinate, dimethyl glutarate and dimethyl adipate at 2, 5.2 and 8.3 kPa
pvap	8.37	kPa	423.15	Vapor-Liquid Equilibrium of Mixtures Containing Adipic Acid, Glutaric Acid, Dimethyl Adipate, Dimethyl Glutarate, Methanol, and Water
pvap	0.02	kPa	319.30	Thermodynamic Properties of Mixtures Containing Ionic Liquids. 7. Activity Coefficients of Aliphatic and Aromatic Esters and Benzylamine in 1-Methyl-3-ethylimidazolium Bis(trifluoromethylsulfonyl) Imide Using the Transpiration Method
rfi	1.42222		308.15	Experimental Determination and Modeling of Densities, Refractive Indices of the Binary Mixtures of Dimethylphthalate (or Dimethyladipate) + 1-Butanol, or + 2-Butanol, or + 2-Butanone at T = (288.15 to 323.15) K

rfi	1.42017	313.15	Experimental Determination and Modeling of Densities, Refractive Indices of the Binary Mixtures of Dimethylphthalate (or Dimethyladipate) + 1-Butanol, or + 2-Butanol, or + 2-Butanone at T = (288.15 to 323.15) K	
rfi	1.41819	318.15	Experimental Determination and Modeling of Densities, Refractive Indices of the Binary Mixtures of Dimethylphthalate (or Dimethyladipate) + 1-Butanol, or + 2-Butanol, or + 2-Butanone at T = (288.15 to 323.15) K	
rfi	1.42825	293.15	Phase equilibria of (water + levulinic acid + dibasic esters) ternary systems	
rfi	1.42825	293.20	Liquid-Liquid Equilibria for Ternary Systems of Water + Formic Acid + Dibasic Esters	
rfi	1.42825	293.15	(Liquid + liquid) equilibria of (water + butyric acid + dibasic esters) ternary systems	
rfi	1.42825	293.15	(Liquid + liquid) equilibria of (water + propionic acid + dibasic esters) ternary systems	

rfi	1.43050	288.15	Experimental Determination and Modeling of Densities, Refractive Indices of the Binary Mixtures of Dimethylphthalate (or Dimethyladipate) + 1-Butanol, or + 2-Butanol, or + 2-Butanone at T = (288.15 to 323.15) K
rfi	1.42842	293.15	Experimental Determination and Modeling of Densities, Refractive Indices of the Binary Mixtures of Dimethylphthalate (or Dimethyladipate) + 1-Butanol, or + 2-Butanol, or + 2-Butanone at T = (288.15 to 323.15) K
rfi	1.42636	298.15	Experimental Determination and Modeling of Densities, Refractive Indices of the Binary Mixtures of Dimethylphthalate (or Dimethyladipate) + 1-Butanol, or + 2-Butanol, or + 2-Butanone at T = (288.15 to 323.15) K
rfi	1.42429	303.15	Experimental Determination and Modeling of Densities, Refractive Indices of the Binary Mixtures of Dimethylphthalate (or Dimethyladipate) + 1-Butanol, or + 2-Butanol, or + 2-Butanone at T = (288.15 to 323.15) K

rfi	1.41614		323.15	Experimental Determination and Modeling of Densities, Refractive Indices of the Binary Mixtures of Dimethylphthalate (or Dimethyladipate) + 1-Butanol, or + 2-Butanol, or + 2-Butanone at T = (288.15 to 323.15) K
rhol	1047.30	kg/m3	308.15	Experimental Investigation of Interactions and Thermodynamic Properties of Poly(ethylene glycol) 200/400 + Dimethyl Adipate/Dimethyl Phthalate Binary Mixtures
rhol	1061.93	kg/m3	293.15	Thermodynamic and Spectroscopic Study of the Ternary System Dimethyladipate + Tetrahydrofuran +1-Butanol at T = (288.15 to 323.15) K
rhol	1037.52	kg/m3	318.15	Experimental Investigation of Interactions and Thermodynamic Properties of Poly(ethylene glycol) 200/400 + Dimethyl Adipate/Dimethyl Phthalate Binary Mixtures
rhol	1042.41	kg/m3	313.15	Experimental Investigation of Interactions and Thermodynamic Properties of Poly(ethylene glycol) 200/400 + Dimethyl Adipate/Dimethyl Phthalate Binary Mixtures

rhol	1066.79	kg/m3	288.15	Experimental Investigation of Interactions and Thermodynamic Properties of Poly(ethylene glycol) 200/400 + Dimethyl Adipate/Dimethyl Phthalate Binary Mixtures	
rhol	1061.92	kg/m3	293.15	Experimental Investigation of Interactions and Thermodynamic Properties of Poly(ethylene glycol) 200/400 + Dimethyl Adipate/Dimethyl Phthalate Binary Mixtures	
rhol	1057.05	kg/m3	298.15	Experimental Investigation of Interactions and Thermodynamic Properties of Poly(ethylene glycol) 200/400 + Dimethyl Adipate/Dimethyl Phthalate Binary Mixtures	
rhol	1052.18	kg/m3	303.15	Experimental Investigation of Interactions and Thermodynamic Properties of Poly(ethylene glycol) 200/400 + Dimethyl Adipate/Dimethyl Phthalate Binary Mixtures	
rhol	1032.62	kg/m3	323.15	Experimental Investigation of Interactions and Thermodynamic Properties of Poly(ethylene glycol) 200/400 + Dimethyl Adipate/Dimethyl Phthalate Binary Mixtures	

rhol	1061.93	kg/m3	293.15	Densities, Viscosities and Refractive Indices of the Ternary Mixture Dimethyladipate + 2-Butanone + 1-Butanol at T = (288.15 to 323.15) K
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	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	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	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	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	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

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	382.70	K	1.90	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.73676e+01
Coeff. B	-6.50271e+03
Coeff. C	2.04500e+00
Temperature range (K), min.	378.68
Temperature range (K), max.	537.32

Datasets

Viscosity, Pa*s

Temperature, K - Liquid	Pressure, kPa - Liquid	Viscosity, Pa*s - Liquid
293.17	100.00	0.0033017
293.17	1000.00	0.0033311
293.15	5000.00	0.0034604
293.15	10000.00	0.0036228

293.15	15000.00	0.0037874
293.15	20000.00	0.0039575
293.15	30000.00	0.0043327
293.15	40000.00	0.0047221
303.17	100.00	0.0026168
303.17	1000.00	0.0026374
303.15	5000.00	0.0027346
303.15	10000.00	0.0028541
303.16	15000.00	0.0029853
303.16	20000.00	0.0031153
303.16	30000.00	0.0033842
303.16	40000.00	0.0036722
313.15	100.00	0.0021286
313.14	1000.00	0.0021512
313.15	5000.00	0.0022266
313.15	10000.00	0.0023257
313.14	15000.00	0.0024218
313.14	20000.00	0.0025218
313.14	30000.00	0.0027271
313.15	40000.00	0.0029553
323.15	100.00	0.0017744
323.15	1000.00	0.0017890
323.15	5000.00	0.0018498
323.15	10000.00	0.0019284
323.15	15000.00	0.0020079
323.15	20000.00	0.0020885
323.15	30000.00	0.0022538
323.14	40000.00	0.0024322
333.15	100.00	0.0015030
333.15	1000.00	0.0015137
333.15	5000.00	0.0015648
333.15	10000.00	0.0016293
333.15	15000.00	0.0016956
333.15	20000.00	0.0017638
333.15	30000.00	0.0019034
333.14	40000.00	0.0020465
343.15	100.00	0.0012934
343.15	1000.00	0.0013031
343.15	5000.00	0.0013463
343.15	10000.00	0.0014005
343.15	15000.00	0.0014568
343.15	20000.00	0.0015137
343.15	30000.00	0.0016304
343.15	40000.00	0.0017516

353.15	100.00	0.0011277
353.16	1000.00	0.0011361
353.15	5000.00	0.0011742
353.15	10000.00	0.0012210
353.15	15000.00	0.0012689
353.15	20000.00	0.0013174
353.15	30000.00	0.0014167
353.15	40000.00	0.0015197
363.15	100.00	0.0009897
363.15	1000.00	0.0009971
363.15	5000.00	0.0010303
363.15	10000.00	0.0010723
363.13	15000.00	0.0011145
363.13	20000.00	0.0011573
363.15	30000.00	0.0012439
363.15	40000.00	0.0013321

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

Mass density, kg/m3

Temperature, K - Liquid	Pressure, kPa - Liquid	Mass density, kg/m3 - Liquid
293.15	100.00	1061.2
293.15	4990.00	1064.2
293.15	10010.00	1067.3
293.15	20020.00	1073.2
293.15	25000.00	1076.0
293.15	14980.00	1070.3
293.15	7490.00	1065.8
293.15	5000.00	1064.3
293.15	2510.00	1062.8
323.15	100.00	1031.9
323.15	4990.00	1035.5
323.15	10060.00	1039.1
323.15	20020.00	1045.8
323.15	24990.00	1049.0
323.15	15010.00	1042.5
323.15	7490.00	1037.3
323.15	5000.00	1035.5
323.15	2540.00	1033.7
358.15	100.00	997.6

358.15	4980.00	1001.9
358.15	9980.00	1006.1
358.15	20030.00	1014.2
358.15	25000.00	1018.0
358.15	15030.00	1010.3
358.15	7500.00	1004.1
358.15	5020.00	1002.0
358.15	2500.00	999.8
303.15	100.00	1051.5
303.15	5010.00	1054.7
303.15	9990.00	1057.9
303.15	20000.00	1064.0
303.15	25000.00	1067.0
303.15	15010.00	1061.0
303.15	7510.00	1056.3
303.15	5010.00	1054.7
303.15	2510.00	1053.1
333.15	100.00	1022.1
333.15	5010.00	1026.0
333.15	10020.00	1029.7
333.15	20030.00	1036.8
333.15	24920.00	1040.1
333.15	15000.00	1033.2
333.15	7490.00	1027.8
333.15	5040.00	1026.0
333.15	2520.00	1024.1
293.15	100.00	1061.2
293.15	5020.00	1064.3
293.15	10020.00	1067.3
293.15	20240.00	1073.3
293.15	25010.00	1076.0
293.15	15030.00	1070.3
293.15	7570.00	1065.9
293.15	5030.00	1064.3
293.15	2540.00	1062.8
313.15	100.00	1041.8
313.15	5020.00	1045.2
313.15	10010.00	1048.5
313.15	20020.00	1054.9
313.15	25000.00	1058.0
313.15	15010.00	1051.7
313.15	7520.00	1046.8
313.15	5020.00	1045.1
313.15	2520.00	1043.5

343.15	100.00	1012.4
343.15	5010.00	1016.3
343.15	9990.00	1020.2
343.15	20000.00	1027.7
343.15	24990.00	1031.2
343.15	15010.00	1024.0
343.15	7530.00	1018.3
343.15	5000.00	1016.3
343.15	2500.00	1014.3

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Legend

chl:	Standard liquid enthalpy of combustion
chs:	Standard solid enthalpy of combustion
cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase 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
rfi:	Refractive Index
rhol:	Liquid Density
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
sdco:	Self diffusion coefficient
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume