Methyl tetradecanoate

Other names:	Acide myristique methyl ester
	Emery 2214
	Metholeneat 2495
	Methyl myristylate
	Methyl n-tetradecanoate
	Uniphat A50
	methyl myristate
	myristic acid, methyl ester
	tetradecanoic acid, methyl ester
Inchi:	InChI=1S/C15H30O2/c1-3-4-5-6-7-8-9-10-11-12-13-14-15(16)17-2/h3-14H2,1-2H3
InchiKey:	ZAZKJZBWRNNLDS-UHFFFAOYSA-N
Formula:	C15H30O2
SMILES:	00(0=)000000000000000000000000000000000
Mol. weight [g/mol]:	242.40
CAS:	124-10-7

Physical Properties

Property code	Value	Unit	Source
chl	-9430.70 ± 0.40	kJ/mol	NIST Webbook
chl	-9445.60 ± 2.10	kJ/mol	NIST Webbook
gf	-158.50	kJ/mol	Joback Method
hf	-597.73	kJ/mol	Joback Method
hfus	52.01	kJ/mol	Heat Capacity Measurements of 13 Methyl Esters of n-Carboxylic Acids from Methyloctanoate to Methyleicosanoate between 5 K and 350 K
hvap	86.60	kJ/mol	NIST Webbook
hvap	87.00 ± 0.90	kJ/mol	NIST Webbook
hvap	86.20 ± 1.00	kJ/mol	NIST Webbook
hvap	86.98 ± 0.94	kJ/mol	NIST Webbook
hvap	86.98	kJ/mol	NIST Webbook
hvap	85.90 ± 0.80	kJ/mol	NIST Webbook
log10ws	-4.96		Crippen Method
logp	4.861		Crippen Method
mcvol	229.650	ml/mol	McGowan Method
рс	1465.73	kPa	Joback Method

rinpol	1726.00	NIST Webbook
rinpol	1726.00	NIST Webbook
rinpol	1727.00	NIST Webbook
rinpol	1713.00	NIST Webbook
rinpol	1725.00	NIST Webbook
rinpol	1714.00	NIST Webbook
rinpol	1727.00	NIST Webbook
rinpol	1738.00	NIST Webbook
rinpol	1719.00	NIST Webbook
rinpol	1706.00	NIST Webbook
rinpol	1706.00	NIST Webbook
rinpol	1707.00	NIST Webbook
rinpol	1707.44	NIST Webbook
rinpol	1708.00	NIST Webbook
rinpol	1707.00	NIST Webbook
rinpol	1715.00	NIST Webbook
rinpol	1725.00	NIST Webbook
rinpol	1714.00	NIST Webbook
rinpol	1722.20	NIST Webbook
rinpol	1728.00	NIST Webbook
rinpol	1726.00	NIST Webbook
rinpol	1726.00	NIST Webbook
rinpol	1699.00	NIST Webbook
rinpol	1699.00	NIST Webbook
rinpol	1708.00	NIST Webbook
rinpol	1727.00	NIST Webbook
rinpol	1724.00	NIST Webbook
rinpol	1725.00	NIST Webbook
rinpol	1723.00	NIST Webbook
rinpol	1738.00	NIST Webbook
rinpol	1723.00	NIST Webbook
rinpol	1726.00	NIST Webbook
rinpol	1723.00	NIST Webbook
rinpol	1727.40	NIST Webbook
rinpol	1725.00	NIST Webbook
rinpol	1723.00	NIST Webbook
rinpol	1727.00	NIST Webbook
rinpol	1706.00	NIST Webbook
rinpol	1722.00	NIST Webbook
rinpol	1710.00	NIST Webbook
rinpol	1724.00	NIST Webbook
rinpol	1725.00	NIST Webbook
rinpol	1709.00	NIST Webbook
rinpol	1729.00	NIST Webbook

rinpol	1707.00	NIST Webbook
rinpol	1727.00	NIST Webbook
rinpol	1707.00	NIST Webbook
rinpol	1705.00	NIST Webbook
rinpol	1708.00	NIST Webbook
rinpol	1708.00	NIST Webbook
rinpol	1707.00	NIST Webbook
rinpol	1712.00	NIST Webbook
rinpol	1722.00	NIST Webbook
rinpol	1726.00	NIST Webbook
rinpol	1735.00	NIST Webbook
rinpol	1684.00	NIST Webbook
rinpol	1735.00	NIST Webbook
rinpol	1708.00	NIST Webbook
rinpol	1727.00	NIST Webbook
rinpol	1727.00	NIST Webbook
rinpol	1707.00	NIST Webbook
rinpol	1707.00	NIST Webbook
rinpol	1723.00	NIST Webbook
rinpol	1707.00	NIST Webbook
rinpol	1725.00	NIST Webbook
rinpol	1717.00	NIST Webbook
rinpol	1706.00	NIST Webbook
rinpol	1725.00	NIST Webbook
rinpol	1707.00	NIST Webbook
rinpol	1708.00	NIST Webbook
rinpol	1714.00	NIST Webbook
rinpol	1715.00	NIST Webbook
rinpol	288.78	NIST Webbook
rinpol	291.18	NIST Webbook
rinpol	297.60	NIST Webbook
rinpol	297.60	NIST Webbook
rinpol	297.70	NIST Webbook
rinpol	1706.00	NIST Webbook
rinpol	290.52	NIST Webbook
rinpol	290.32	NIST Webbook
rinpol	290.32	NIST Webbook
rinpol	290.32	NIST Webbook
rinpol	1722.20	NIST Webbook
rinpol	1707.00	NIST Webbook
rinpol	1713.00	NIST Webbook
rinpol	1713.00	NIST Webbook
rinpol	1712.00	NIST Webbook
rinpol	1718.00	NIST Webbook

rinpol	1710.00		NIST Webbook
rinpol	1710.60		NIST Webbook
rinpol	286.80		NIST Webbook
rinpol	1728.00		NIST Webbook
ripol	1998.00		NIST Webbook
ripol	1990.00		NIST Webbook
ripol	2006.00		NIST Webbook
ripol	2034.00		NIST Webbook
ripol	1988.00		NIST Webbook
ripol	2028.00		NIST Webbook
ripol	2008.00		NIST Webbook
ripol	2008.00		NIST Webbook
ripol	2000.00		NIST Webbook
ripol	1998.00		NIST Webbook
ripol	2032.00		NIST Webbook
ripol	2036.00		NIST Webbook
ripol	2014.00		NIST Webbook
ripol	2006.00		NIST Webbook
ripol	1987.00		NIST Webbook
ripol	2021.00		NIST Webbook
ripol	2034.00		NIST Webbook
ripol	2014.00		NIST Webbook
ripol	2009.00		NIST Webbook
ripol	2005.00		NIST Webbook
ripol	1990.00		NIST Webbook
ripol	1990.00		NIST Webbook
ripol	2020.00		NIST Webbook
ripol	1978.00		NIST Webbook
ripol	2000.00		NIST Webbook
ripol	1998.00		NIST Webbook
ripol	2028.00		NIST Webbook
ripol	1990.00		NIST Webbook
ripol	1990.00		NIST Webbook
ripol	1990.00		NIST Webbook
ripol	2037.00		NIST Webbook
ripol	1999.00		NIST Webbook
tb	596.20	K	NIST Webbook
tc	730.00	К	Vapor-liquid critical point measurements of fifteen compounds by the pulse-heating method
tf	290.00 ± 1.00	К	NIST Webbook
tf	292.00 ± 2.00	К	NIST Webbook
tf	291.85 ± 0.30	К	NIST Webbook
VC	0.899	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source	
cpg	700.70	J/mol×K	758.49	Joback Method	
cpg	686.10	J/mol×K	730.57	Joback Method	
cpg	638.14	J/mol×K	646.81	Joback Method	
cpg	620.74	J/mol×K	618.89	Joback Method	
cpg	670.81	J/mol×K	702.65	Joback Method	
cpg	654.83	J/mol×K	674.73	Joback Method	
cpg	714.65	J/mol×K	786.41	Joback Method	
cpl	505.40	J/mol×K	298.15	NIST Webbook	
dvisc	0.0034960	Paxs	303.15	Group Contribution Model for Predicting Viscosity of Fatty Compounds	
dvisc	0.0014233	Paxs	353.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters	
dvisc	0.0015321	Paxs	348.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters	
dvisc	0.0016549	Paxs	343.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters	
dvisc	0.0028410	Paxs	313.15	Group Contribution Model for Predicting Viscosity of Fatty Compounds	
dvisc	0.0022520	Paxs	323.15	Group Contribution Model for Predicting Viscosity of Fatty Compounds	
dvisc	0.0018190	Paxs	333.15	Group Contribution Model for Predicting Viscosity of Fatty Compounds	

dvisc	0.0015210	Paxs	343.15	Group Contribution Model for Predicting Viscosity of Fatty Compounds	
dvisc	0.0023343	Paxs	323.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters	
dvisc	0.0025709	Paxs	318.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters	
dvisc	0.0028447	Paxs	313.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters	
dvisc	0.0044420	Paxs	293.15	Group Contribution Model for Predicting Viscosity of Fatty Compounds	
dvisc	0.0031651	Paxs	308.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters	
dvisc	0.0035430	Paxs	303.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters	
dvisc	0.0039821	Paxs	298.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters	
dvisc	0.0017932	Paxs	338.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters	
dvisc	0.0021295	Paxs	328.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters	
 dvisc	0.0019498	Paxs	333.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters	
hfust	50.21	kJ/mol	291.60	NIST Webbook	
hfust	50.21	kJ/mol	291.60	NIST Webbook	
hsubt	137.70 ± 2.10	kJ/mol	281.00	NIST Webbook	
hvapt	65.30	kJ/mol	498.00	NIST Webbook	

hvapt	86.10	kJ/mol	298.15	the vaporization enthaplies and vapor pressures of a series of unstaurated fatty acid methyl esters by correlation gas chromatography	
hvapt	87.00	kJ/mol	313.00	NIST Webbook	
hvapt	75.06	kJ/mol	293.00	NIST Webbook	
hvapt	77.40	kJ/mol	390.50	NIST Webbook	
hvapt	76.00 ± 0.20	kJ/mol	382.00	NIST Webbook	
hvapt	79.80	kJ/mol	350.00	NIST Webbook	
hvapt	75.60	kJ/mol	454.00	NIST Webbook	
pvap	5.17e-03	kPa	342.80	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
pvap	7.62e-04	kPa	321.26	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	8.69e-04	kPa	322.58	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	9.62e-04	kPa	323.72	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	1.11e-03	kPa	325.20	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	

pvap	1.22e-03	kPa	326.19	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	1.39e-03	kPa	327.67	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	1.52e-03	kPa	328.66	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	1.74e-03	kPa	330.13	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	1.91e-03	kPa	331.13	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	2.17e-03	kPa	332.60	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	2.38e-03	kPa	333.60	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	

pvap	2.75e-03	kPa	335.34	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
pvap	2.94e-03	kPa	336.07	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	3.41e-03	kPa	337.83	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	3.63e-03	kPa	338.55	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	4.21e-03	kPa	340.31	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	4.47e-03	kPa	341.01	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
pvap	6.86e-04	kPa	320.12	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	

pvap	5.47e-03	kPa	343.48	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	6.33e-03	kPa	345.28	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	6.70e-03	kPa	345.96	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
pvap	7.72e-03	kPa	347.76	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
pvap	5.91e-04	kPa	318.63	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	9.38e-03	kPa	350.25	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	9.87e-03	kPa	350.91	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	

рvар	0.01	kPa	352.73	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	4.00	kPa	459.62	Vapor liquid equilibrium of fatty acid ethyl esters determined using DSC	
рvар	0.01	kPa	353.15	Isothermal Vapor Pressures of Three Binary Systems: n-Tetradecane + Methyl Dodecanoate, Methyl Tetradecanoate, or Methyl Hexadecanoate between 353.15 and 453.15 K	
рvар	0.03	kPa	363.15	Isothermal Vapor Pressures of Three Binary Systems: n-Tetradecane + Methyl Dodecanoate, Methyl Tetradecanoate, or Methyl Hexadecanoate between 353.15 and 453.15 K	
рvар	0.05	kPa	373.15	Isothermal Vapor Pressures of Three Binary Systems: n-Tetradecane + Methyl Dodecanoate, Methyl Tetradecanoate, or Methyl Hexadecanoate between 353.15 and 453.15 K	

pvap	0.10	kPa	383.15	Isothermal Vapor Pressures of Three Binary Systems: n-Tetradecane + Methyl Dodecanoate, Methyl Tetradecanoate, or Methyl Hexadecanoate between 353.15 and 453.15 K	
pvap	0.17	kPa	393.15	Isothermal Vapor Pressures of Three Binary Systems: n-Tetradecane + Methyl Dodecanoate, Methyl Tetradecanoate, or Methyl Hexadecanoate between 353.15 and 453.15 K	
рvар	0.30	kPa	403.15	Isothermal Vapor Pressures of Three Binary Systems: n-Tetradecane + Methyl Dodecanoate, Methyl Tetradecanoate, or Methyl Hexadecanoate between 353.15 and 453.15 K	
рvар	0.51	kPa	413.15	Isothermal Vapor Pressures of Three Binary Systems: n-Tetradecane + Methyl Dodecanoate, Methyl Tetradecanoate, or Methyl Hexadecanoate between 353.15 and 453.15 K	
pvap	0.84	kPa	423.15	Isothermal Vapor Pressures of Three Binary Systems: n-Tetradecane + Methyl Dodecanoate, Methyl Tetradecanoate, or Methyl Hexadecanoate between 353.15 and 453.15 K	

рvар	1.35	kPa	433.15	Isothermal Vapor Pressures of Three Binary Systems: n-Tetradecane + Methyl Dodecanoate, Methyl Tetradecanoate, or Methyl Hexadecanoate between 353.15 and 453.15 K	
рvар	2.12	kPa	443.15	Isothermal Vapor Pressures of Three Binary Systems: n-Tetradecane + Methyl Dodecanoate, Methyl Tetradecanoate, or Methyl Hexadecanoate between 353.15 and 453.15 K	
pvap	3.27	kPa	453.15	Isothermal Vapor Pressures of Three Binary Systems: n-Tetradecane + Methyl Dodecanoate, Methyl Tetradecanoate, or Methyl Hexadecanoate between 353.15 and 453.15 K	
рvар	1.72	kPa	437.72	Vapor-Liquid Equilibria of Binary Systems with Long-Chain Organic Compounds (Fatty Alcohol, Fatty Ester, Acylglycerol, and n-Paraffin) at Subatmospheric Pressures	
рvар	5.36e-04	kPa	317.65	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	

pvap	4.65e-04	kPa	316.16	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	8.13e-03	kPa	348.43	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
pvap	4.20e-04	kPa	315.17	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
pvap	3.62e-04	kPa	313.70	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
pvap	3.26e-04	kPa	312.71	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
pvap	2.81e-04	kPa	311.21	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
pvap	2.54e-04	kPa	310.23	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	

pvap	2.14e-04	kPa	308.58	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
pvap	1.95e-04	kPa	307.76	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	1.66e-04	kPa	306.14	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
рvар	1.50e-04	kPa	305.30	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
pvap	1.13e-04	kPa	302.71	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics	
pvap	3.13	kРа	452.26	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl octanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	

pvap	3.13	kPa	452.25	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl octanoate, methyl decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	
рvар	3.12	kPa	452.24	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl octanoate, methyl decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	
рvар	2.05	kPa	442.38	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl octanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	

pvap	2.06	kPa	442.36	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl octanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	
рvар	1.31	kPa	432.58	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl octanoate, methyl decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	
pvap	1.31	kPa	432.57	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl octanoate, methyl decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	

pvap	1.31	kPa	432.57	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	
pvap	0.83	kPa	422.64	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl octanoate, methyl decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	
рvар	0.30	kPa	402.76	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl octanoate, methyl decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	

рvар	0.17	kPa	392.87	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl octanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	
рvар	0.17	kPa	392.86	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl octanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	
pvap	0.09	kPa	382.82	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl octanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	

pva	р	0.05	kPa	372.73	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl octanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	
pva	ρ	0.03	kPa	362.59	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl octanoate, methyl decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	
pva	þ	0.01	kPa	352.35	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl octanoate, methyl decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	

pvap	0.01	kPa	352.35	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl octanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	
pvap	5.98e-03	kРа	342.28	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl octanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	
pvap	5.88e-03	kPa	342.28	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl octanoate, methyl decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	

pvap	2.76e-03	kPa	332.40	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	
рvар	0.51	kPa	412.80	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl octanoate, methyl decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	
рvар	2.05	kPa	442.37	Experimental vapor pressures (from 1 Pa to 100 kPa) of six saturated Fatty Acid Methyl Esters (FAMEs): Methyl hexanoate, methyl decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate	
rfi	1.43704		293.15	Thermophysical properties of fatty acid methyl and ethyl esters	
rfi	1.42890		313.15	Thermophysical properties of fatty acid methyl and ethyl esters	

rfi	1.42681	318.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.42472	323.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.42254	328.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.42020	333.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.41783	338.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.41630	343.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.41474	348.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.41282	353.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.41083	358.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.43490	298.15	Liquid-Liquid Equilibria for Ternary Mixtures of gamma-Valerolactone + n-Tetradecane + (Butanoic Acid or Hexanoic Acid or Methyl Myristate) at 298.15 K
rfi	1.43296	303.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.43499	298.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.43093	308.15	Thermophysical properties of fatty acid methyl and ethyl esters

rhol	859.54	kg/m3	303.15	Measurement and correlation of density and viscosity of binary mixtures of fatty acid (methyl esters + methylcyclohexane)
rhol	844.34	kg/m3	323.15	Measurement and correlation of density and viscosity of binary mixtures of fatty acid (methyl esters + methylcyclohexane)
rhol	848.14	kg/m3	318.15	Measurement and correlation of density and viscosity of binary mixtures of fatty acid (methyl esters + methylcyclohexane)
rhol	851.94	kg/m3	313.15	Measurement and correlation of density and viscosity of binary mixtures of fatty acid (methyl esters + methylcyclohexane)
rhol	855.74	kg/m3	308.15	Measurement and correlation of density and viscosity of binary mixtures of fatty acid (methyl esters + methylcyclohexane)
rhol	863.35	kg/m3	298.15	Measurement and correlation of density and viscosity of binary mixtures of fatty acid (methyl esters + methylcyclohexane)
rhol	867.17	kg/m3	293.15	Measurement and correlation of density and viscosity of binary mixtures of fatty acid (methyl esters + methylcyclohexane)

tcondl	0.15	W/m×K	304.33	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.15	W/m×K	304.02	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.14	W/m×K	320.10	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.14	W/m×K	320.81	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.13	W/m×K	402.41	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.14	W/m×K	327.53	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.14	W/m×K	338.31	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	

tcondl	0.14	W/m×K	338.55	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.14	W/m×K	342.21	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.14	W/m×K	342.28	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.14	W/m×K	354.31	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.14	W/m×K	354.58	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.14	W/m×K	359.14	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.14	W/m×K	359.27	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	

tcondl	0.13	W/m×K	369.45	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.13	W/m×K	369.47	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.13	W/m×K	377.12	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.13	W/m×K	377.13	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.13	W/m×K	386.13	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.13	W/m×K	386.27	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.13	W/m×K	394.31	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	

tcondl	0.13	W/m×K	394.48	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.13	W/m×K	402.41	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	
tcondl	0.14	W/m×K	327.18	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel	

Pressure Dependent Properties

Datasets

Viscosity, Pa*s

Temperature, K - Liquid	Pressure, kPa - Liquid	Viscosity, Pa*s - Liquid
303.15	101.30	0.0035100
303.15	20000.00	0.0044300
303.15	40000.00	0.0055100
313.15	101.30	0.0028000
313.15	20000.00	0.0035000
313.15	40000.00	0.0043100

313.15	60000.00	0.0052400
 313.15	80000.00	0.0063100
313.15	100000.00	0.0075400
333.15	101.30	0.0019100
333.15	20000.00	0.0023700
333.15	40000.00	0.0028900
333.15	60000.00	0.0034700
333.15	80000.00	0.0041100
333.15	100000.00	0.0048200
353.15	101.30	0.0014000
353.15	20000.00	0.0017200
353.15	40000.00	0.0020800
353.15	60000.00	0.0024700
 353.15	80000.00	0.0029000
353.15	100000.00	0.0033800

Reference

https://www.doi.org/10.1021/acs.jced.5b00612

Speed of sound, m/s

Pressure, kPa - Liquid	Temperature, K - Liquid	Speed of sound, m/s - Liquid
100.00	303.15	1335.8
10000.00	303.15	1382.9
20000.00	303.15	1426.9
30000.00	303.15	1468.1
40000.00	303.15	1507.6
50000.00	303.15	1544.9
60000.00	303.15	1580.2
70000.00	303.15	1614.2
100.00	323.15	1264.0
10000.00	323.15	1316.4
20000.00	323.15	1364.8
30000.00	323.15	1409.6
40000.00	323.15	1451.9
50000.00	323.15	1492.5
60000.00	323.15	1530.5
70000.00	323.15	1566.8
80000.00	323.15	1601.2
100.00	343.15	1195.7
10000.00	343.15	1251.2
20000.00	343.15	1302.9

30000.00	343.15	1350.8
40000.00	343.15	1396.0
50000.00	343.15	1437.4
60000.00	343.15	1477.5
70000.00	343.15	1515.0
80000.00	343.15	1550.8
100.00	363.15	1130.9
10000.00	363.15	1190.4
20000.00	363.15	1245.2
30000.00	363.15	1295.9
40000.00	363.15	1342.5
50000.00	363.15	1385.7
60000.00	363.15	1426.7
70000.00	363.15	1465.5
80000.00	363.15	1502.6
100.00	383.15	1066.7
10000.00	383.15	1131.3
20000.00	383.15	1189.6
30000.00	383.15	1242.9
40000.00	383.15	1291.7
50000.00	383.15	1338.0
60000.00	383.15	1380.3
70000.00	383.15	1420.4
80000.00	383.15	1457.6
100.00	393.15	1036.2
10000.00	393.15	1103.6
20000.00	393.15	1163.5
30000.00	393.15	1217.8
40000.00	393.15	1267.7
50000.00	393.15	1314.4
60000.00	393.15	1357.8
70000.00	393.15	1397.8
80000.00	393.15	1436.8

Reference

https://www.doi.org/10.1021/je400122k

Sources

Experimental studies on the liquid thermal conductivity of three saturated Experimental Noresters source of the saturated Experimental Noresters source of the saturated Experimental Noresters source of the saturated Bothe GO: kPa) of six saturated Fatty Network of the saturated hexadecanoate:

Crippen Method:

Isothermal Vapor Pressures of Three Binary Systems: n-Tetradecane + Methya Dosecativates Methya Complementary, memoryany memoryany Method between 953.15 and methyl and ethyl esters: Measurement and correlation of vapor liquid equilibria for methanol + methyl Phase bahavieura for ghreele cular norse trace by seaters has the vortical analysis valor incur equilibrium for binary system of methyl myristate +

Group Contribution Model for Predicting Viscosity of Fatty Comission of Equilibria for Ternary Mixtures of gamma-Valerolactone + Misters de gamma-Valerolactone + Misersities and Fatty Asid Methyl and Ethydresites under Metablingesetate) at Manne My Attace and Ethyl Myristate:

Vapor-Liquid Equilibria of Binary Systems with Long-Chain Organic Some of Mathin Strain Str

https://www.doi.org/10.1021/acs.jced.7b00099 https://www.doi.org/10.1016/j.jct.2019.01.007 https://en.wikipedia.org/wiki/Joback_method vaporization thermodynamics: Thermophysical properties of fatty acid https://www.doi.org/10.1016/j.jct.2019.02.025 https://www.doi.org/10.1016/j.fluid.2007.01.034 https://www.doi.org/10.1016/j.fluid.2011.08.015 https://www.doi.org/10.1016/j.fluid.2014.09.006 MetrowpalMatheett 0.5, 1.0 and 1.4 kPa: http://link.springer.com/article/10.1007/BF02311772 Isobaric vapor-liquid equilibrium for the three binary systems of C14 - C16 Were were defined for methanol + side of difference of properties of the strength of the https://www.doi.org/10.1016/j.fluid.2016.05.007 https://www.doi.org/10.1021/acs.jced.5b01105 https://www.doi.org/10.1021/je301348z https://www.doi.org/10.1021/je301348z https://www.doi.org/10.1021/je301348z https://www.doi.org/10.1021/je301348z https://www.doi.org/10.1021/je301348z https://www.doi.org/10.1021/je301348z https://www.doi.org/10.1021/je301348z https://www.doi.org/10.1021/je301348z https://www.doi.org/10.1021/je301348z https://www.doi.org/10.1021/je409364 https://www.doi.org/10.1016/j.jct.2019.05.021 https://www.doi.org/10.1016/j.tca.2007.02.008 https://www.doi.org/10.1021/je400122k https://www.doi.org/10.1021/je400122k https://www.doi.org/10.1021/je400122k https://www.doi.org/10.1021/je400122k https://www.doi.org/10.1021/je700293s https://www.doi.org/10.1021/je700293s https://www.doi.org/10.1021/je700293s Isobaric vapor-liquid equilibrium for the https://www.doi.org/10.1016/j.fluid.2015.08.015 http://webbook.nist.gov/cgi/cbook.cgi?ID=C124107&Units=SI https://www.doi.org/10.1021/je600552b https://www.doi.org/10.1021/acs.jced.8b01025 https://www.doi.org/10.1021/acs.jced.5b00612 http://pubs.acs.org/doi/abs/10.1021/ci990307I https://www.doi.org/10.1021/acs.jced.8b00168

https://www.chemeo.com/doc/models/crippen_log10ws

Legend

chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
cpl:	Liquid phase 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
hfust:	Enthalpy of fusion at a given temperature
hsubt:	Enthalpy of sublimation at a given temperature
hvap:	Enthalpy of vaporization at standard conditions
hvapt:	Enthalpy of vaporization at a given temperature

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Gowan's characteristic volume
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mal Boiling Point Temperature
ling point at reduced pressure
ical Temperature
uid thermal conductivity
mal melting (fusion) point
ical Volume

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