

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:	CCCCCCCCCCCCC(=O)OC
Mol. weight [g/mol]:	242.40
CAS:	124-10-7

Physical Properties

Property code	Value	Unit	Source
chl	-9445.60 ± 2.10	kJ/mol	NIST Webbook
chl	-9430.70 ± 0.40	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	85.90 ± 0.80	kJ/mol	NIST Webbook
hvap	86.98	kJ/mol	NIST Webbook
hvap	87.00 ± 0.90	kJ/mol	NIST Webbook
hvap	86.60	kJ/mol	NIST Webbook
hvap	86.20 ± 1.00	kJ/mol	NIST Webbook
hvap	86.98 ± 0.94	kJ/mol	NIST Webbook
log10ws	-4.96		Crippen Method
logp	4.861		Crippen Method
mcvol	229.650	ml/mol	McGowan Method
pc	1465.73	kPa	Joback Method

rinpol	1722.20	NIST Webbook
rinpol	1710.00	NIST Webbook
rinpol	1718.00	NIST Webbook
rinpol	1710.60	NIST Webbook
rinpol	1713.00	NIST Webbook
rinpol	1713.00	NIST Webbook
rinpol	1707.00	NIST Webbook
rinpol	1726.00	NIST Webbook
rinpol	1706.00	NIST Webbook
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	1728.00	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	286.80	NIST Webbook
rinpol	290.52	NIST Webbook

ripol	290.32		NIST Webbook
ripol	290.32		NIST Webbook
ripol	290.32		NIST Webbook
ripol	1712.00		NIST Webbook
ripol	1978.00		NIST Webbook
ripol	2028.00		NIST Webbook
ripol	1998.00		NIST Webbook
ripol	2000.00		NIST Webbook
ripol	2005.00		NIST Webbook
ripol	2037.00		NIST Webbook
ripol	1990.00		NIST Webbook
ripol	1990.00		NIST Webbook
ripol	1990.00		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	1999.00		NIST Webbook
ripol	1990.00		NIST Webbook
ripol	1990.00		NIST Webbook
ripol	2020.00		NIST Webbook
tb	596.20	K	NIST Webbook
tc	730.00	K	Vapor-liquid critical point measurements of fifteen compounds by the pulse-heating method
tf	292.00 ± 2.00	K	NIST Webbook
tf	291.85 ± 0.30	K	NIST Webbook
tf	290.00 ± 1.00	K	NIST Webbook
vc	0.899	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	620.74	J/mol×K	618.89	Joback Method
cpg	638.14	J/mol×K	646.81	Joback Method
cpg	654.83	J/mol×K	674.73	Joback Method
cpg	670.81	J/mol×K	702.65	Joback Method
cpg	686.10	J/mol×K	730.57	Joback Method
cpg	700.70	J/mol×K	758.49	Joback Method
cpg	714.65	J/mol×K	786.41	Joback Method
cpl	505.40	J/mol×K	298.15	NIST Webbook
dvisc	0.0022520	Pa×s	323.15	Group Contribution Model for Predicting Viscosity of Fatty Compounds
dvisc	0.0039821	Pa×s	298.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters
dvisc	0.0035430	Pa×s	303.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters
dvisc	0.0031651	Pa×s	308.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters
dvisc	0.0028447	Pa×s	313.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters
dvisc	0.0025709	Pa×s	318.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters
dvisc	0.0023343	Pa×s	323.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters
dvisc	0.0021295	Pa×s	328.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters
dvisc	0.0019498	Pa×s	333.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters

dvisc	0.0017932	Pa×s	338.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters	
dvisc	0.0016549	Pa×s	343.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters	
dvisc	0.0018190	Pa×s	333.15	Group Contribution Model for Predicting Viscosity of Fatty Compounds	
dvisc	0.0014233	Pa×s	353.15	Densities and Viscosities of Fatty Acid Methyl and Ethyl Esters	
dvisc	0.0044420	Pa×s	293.15	Group Contribution Model for Predicting Viscosity of Fatty Compounds	
dvisc	0.0034960	Pa×s	303.15	Group Contribution Model for Predicting Viscosity of Fatty Compounds	
dvisc	0.0028410	Pa×s	313.15	Group Contribution Model for Predicting Viscosity of Fatty Compounds	
dvisc	0.0015210	Pa×s	343.15	Group Contribution Model for Predicting Viscosity of Fatty Compounds	
dvisc	0.0015321	Pa×s	348.15	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	76.00 ± 0.20	kJ/mol	382.00	NIST Webbook	
hvapt	75.60	kJ/mol	454.00	NIST Webbook	
hvapt	75.06	kJ/mol	293.00	NIST Webbook	
hvapt	77.40	kJ/mol	390.50	NIST Webbook	

hvapt	86.10	kJ/mol	298.15	the vaporization enthalpies and vapor pressures of a series of unsaturated fatty acid methyl esters by correlation gas chromatography
hvapt	65.30	kJ/mol	498.00	NIST Webbook
hvapt	79.80	kJ/mol	350.00	NIST Webbook
hvapt	87.00	kJ/mol	313.00	NIST Webbook
pvap	2.81e-04	kPa	311.21	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics
pvap	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
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

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 octanoate, methyl decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate
pvap	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	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 decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate
pvap	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 octanoate, methyl decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate
pvap	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 decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate

pvap	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
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
pvap	3.13	kPa	452.26	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	1.13e-04	kPa	302.71	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics
pvap	1.50e-04	kPa	305.30	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics
pvap	1.66e-04	kPa	306.14	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
pvap	2.14e-04	kPa	308.58	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	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
pvap	3.26e-04	kPa	312.71	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	4.20e-04	kPa	315.17	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
pvap	5.36e-04	kPa	317.65	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
pvap	6.86e-04	kPa	320.12	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
pvap	8.69e-04	kPa	322.58	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics
pvap	9.62e-04	kPa	323.72	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics
pvap	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

pvap	1.39e-03	kPa	327.67	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics
pvap	1.52e-03	kPa	328.66	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics
pvap	1.74e-03	kPa	330.13	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics
pvap	1.91e-03	kPa	331.13	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics
pvap	2.17e-03	kPa	332.60	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics
pvap	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
pvap	3.41e-03	kPa	337.83	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics
pvap	3.63e-03	kPa	338.55	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics
pvap	4.21e-03	kPa	340.31	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics
pvap	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 decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate
pvap	5.17e-03	kPa	342.80	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
pvap	6.33e-03	kPa	345.28	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics
pvap	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	8.13e-03	kPa	348.43	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics
pvap	9.38e-03	kPa	350.25	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics
pvap	9.87e-03	kPa	350.91	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics

pvap	0.01	kPa	352.73	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics
pvap	4.00	kPa	459.62	Vapor liquid equilibrium of fatty acid ethyl esters determined using DSC
pvap	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
pvap	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
pvap	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
pvap	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
pvap	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	0.17	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 decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate
pvap	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
pvap	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

pvap	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
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 decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate
pvap	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 decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate

pvap	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
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 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 decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate

pvap	5.98e-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	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 octanoate, methyl decanoate, methyl dodecanoate, methyl tetradecanoate and methyl hexadecanoate

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
pvap	4.47e-03	kPa	341.01	Fatty acids methyl esters: Complementary measurements and comprehensive analysis of vaporization thermodynamics
rfi	1.42254		328.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.43704		293.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.43499		298.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.43296		303.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.43093		308.15	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	1.43490		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	1.41083		358.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.41282		353.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.41474		348.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.41630		343.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.41783		338.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.42020		333.15	Thermophysical properties of fatty acid methyl and ethyl esters
rfi	1.42472		323.15	Thermophysical properties of fatty acid methyl and ethyl esters
rhoI	867.17	kg/m3	293.15	Measurement and correlation of density and viscosity of binary mixtures of fatty acid (methyl esters + methylcyclohexane)
rhoI	844.34	kg/m3	323.15	Measurement and correlation of density and viscosity of binary mixtures of fatty acid (methyl esters + methylcyclohexane)
rhoI	859.54	kg/m3	303.15	Measurement and correlation of density and viscosity of binary mixtures of fatty acid (methyl esters + methylcyclohexane)
rhoI	855.74	kg/m3	308.15	Measurement and correlation of density and viscosity of binary mixtures of fatty acid (methyl esters + methylcyclohexane)

rhoI	851.94	kg/m ³	313.15	Measurement and correlation of density and viscosity of binary mixtures of fatty acid (methyl esters + methylcyclohexane)
rhoI	848.14	kg/m ³	318.15	Measurement and correlation of density and viscosity of binary mixtures of fatty acid (methyl esters + methylcyclohexane)
rhoI	863.35	kg/m ³	298.15	Measurement and correlation of density and viscosity of binary mixtures of fatty acid (methyl esters + methylcyclohexane)
tcondI	0.13	W/m×K	386.13	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel
tcondI	0.13	W/m×K	377.13	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel
tcondI	0.13	W/m×K	386.27	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel
tcondI	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	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	402.41	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	0.13	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	369.45	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	0.14	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	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	354.31	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	0.14	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	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	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	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	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	327.18	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	0.14	W/m×K	320.10	Experimental studies on the liquid thermal conductivity of three saturated fatty acid methyl esters components of biodiesel
tcondl	0.15	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

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
---------------	-------	------	----------------	--------

tbrp

429.20

K

0.90

NIST Webbook

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

Crippen Method:

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

Vapor-Liquid Equilibria of Binary Systems with Long-Chain Organic Compounds (Fatty Alcohol, Fatty Ester, Acylglycerol, and n-Paraffin) at Subatmospheric Pressures:

<https://www.doi.org/10.1021/acs.jced.8b00168>

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
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
rhof:	Liquid Density
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
speedsl:	Speed of sound in fluid
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tcondl:	Liquid thermal conductivity
tf:	Normal melting (fusion) point
vc:	Critical Volume

Latest version available from:

<https://www.chemeo.com/cid/65-948-8/Methyl-tetradecanoate.pdf>

Generated by Cheméo on 2025-12-05 11:01:32.594147674 +0000 UTC m=+4680690.124188328.

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