Ethyl 9-hexadecenoate

Other names: 9-Hexadecenoic acid, ethyl ester
Ethyl hexadec-9-enoate
Inchi: InChI=1S/C18H34O2/c1-3-5-6-7-8-9-10-11-12-13-14-15-16-17-18(19)20-4-2/h9-10H,3-8,
InchiKey: JELGPLUONQGOHF-MDZDMXLPSA-N
Formula: C18H34O2
SMILES: CCCCCCC=CCCCCCCCC(=O)OCC
Mol. weight [g/mol]: 282.46
CAS: 54546-22-4

Physical Properties

Property code	Value	Unit	Source
gf	-53.02	kJ/mol	Joback Method
hf	-542.43	kJ/mol	Joback Method
hfus	45.36	kJ/mol	Joback Method
hvap	64.78	kJ/mol	Joback Method
log10ws	-6.07		Crippen Method
logp	5.807		Crippen Method
mcvol	267.620	ml/mol	McGowan Method
pc	1232.88	kPa	Joback Method
rinpol	1975.00		NIST Webbook
rinpol	1977.00		NIST Webbook
rinpol	1978.30		NIST Webbook
rinpol	1955.00		NIST Webbook
rinpol	1975.00		NIST Webbook
rinpol	1977.00		NIST Webbook
rinpol	1975.00		NIST Webbook
ripol	2277.00		NIST Webbook
ripol	2292.00		NIST Webbook
ripol	2269.00		NIST Webbook
ripol	2283.00		NIST Webbook
ripol	2288.00		NIST Webbook
ripol	2278.00		NIST Webbook
ripol	2267.00		NIST Webbook
ripol	2283.00		NIST Webbook
ripol	2288.00		NIST Webbook
ripol	2269.00		NIST Webbook
ripol	2288.00		NIST Webbook

ripol	2292.00		NIST Webbook
ripol	2292.00		NIST Webbook
ripol	2292.00		NIST Webbook
ripol	2267.00		NIST Webbook
ripol	2259.00		NIST Webbook
ripol	2288.00		NIST Webbook
tb	691.69	K	Joback Method
tc	864.16	K	Joback Method
tf	359.70	K	Joback Method
vc	1.048	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	768.00	J/mol×K	691.69	Joback Method
cpg	786.32	J/mol×K	720.43	Joback Method
cpg	803.81	J/mol×K	749.18	Joback Method
cpg	820.48	J/mol×K	777.92	Joback Method
cpg	836.37	J/mol×K	806.67	Joback Method
cpg	851.50	J/mol×K	835.41	Joback Method
cpg	865.91	J/mol×K	864.16	Joback Method
dvisc	0.0018910	Pa×s	359.70	Joback Method
dvisc	0.0007915	Pa×s	415.03	Joback Method
dvisc	0.0004066	Pa×s	470.36	Joback Method
dvisc	0.0002403	Pa×s	525.70	Joback Method
dvisc	0.0001570	Pa×s	581.03	Joback Method
dvisc	0.0001105	Pa×s	636.36	Joback Method
dvisc	0.0000822	Pa×s	691.69	Joback Method

Sources

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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

Joback Method: https://en.wikipedia.org/wiki/Joback_method

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C54546224&Units=SI

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
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume