4-Decenoic acid, ethyl ester, (z)-

Other names: Ethyl cis-4-decenoate
Ethyl (4Z)-4-decenoate
Ethyl (Z)-4-decenoate
Inchi: InChI=1S/C12H22O2/c1-3-5-6-7-8-9-10-11-12(13)14-4-2/h8-9H,3-7,10-11H2,1-2H3/b9-8
InchiKey: AWNIQMQADACLCJ-HJWRWDBZSA-N
Formula: C12H22O2
SMILES: CCCCC/C=C\CCC(=O)OCC
Mol. weight [g/mol]: 198.31

Physical Properties

Property code	Value	Unit	Source
af	0.5847		Cheméo Relay (1.0)
gf	-103.54	kJ/mol	Joback Method
hf	-520.69	kJ/mol	Cheméo Relay (1.0)
hfus	29.82	kJ/mol	Joback Method
hvap	67.43	kJ/mol	Cheméo Relay (1.0)
ie	8.91	eV	Cheméo Relay (1.0)
log10ws	-3.61		Cheméo Relay (1.0)
logp	3.466		Crippen Method
mcvol	183.080	ml/mol	McGowan Method
pc	1937.24	kPa	Joback Method
rinpol	1345.00		NIST Webbook
rinpol	1361.00		NIST Webbook
rinpol	1363.00		NIST Webbook
rinpol	1345.00		NIST Webbook
rinpol	1361.00		NIST Webbook
rinpol	1361.00		NIST Webbook
rinpol	1359.00		NIST Webbook
rinpol	1363.00		NIST Webbook
rinpol	1363.00		NIST Webbook
rinpol	1363.00		NIST Webbook
rinpol	1361.00		NIST Webbook
ripol	1699.00		NIST Webbook
ripol	1699.00		NIST Webbook
tb	495.60	K	Cheméo Relay (1.0)
tc	682.48	K	Cheméo Relay (1.0)
tf	191.36	K	Cheméo Relay (1.0)

vc	0.674	m3/kmol	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	445.74	J/mol×K	554.41	Joback Method
cpg	461.06	J/mol×K	583.82	Joback Method
cpg	475.72	J/mol×K	613.24	Joback Method
cpg	489.74	J/mol×K	642.65	Joback Method
cpg	503.13	J/mol×K	672.07	Joback Method
cpg	515.92	J/mol×K	701.48	Joback Method
cpg	528.11	J/mol×K	730.90	Joback Method
dvisc	0.0028734	Pa×s	292.08	Joback Method
dvisc	0.0012967	Pa×s	335.80	Joback Method
dvisc	0.0007029	Pa×s	379.52	Joback Method
dvisc	0.0004324	Pa×s	423.25	Joback Method
dvisc	0.0002914	Pa×s	466.97	Joback Method
dvisc	0.0002101	Pa×s	510.69	Joback Method
dvisc	0.0001595	Pa×s	554.41	Joback Method

Sources

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws
Cheméo Relay (1.0):
Cheméo Relay (1.0, beta):
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C7367842&Units=SI
Joback Method: https://en.wikipedia.org/wiki/Joback_method
McGowan Method: http://link.springer.com/article/10.1007/BF02311772

Legend

af: Acentric Factor
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
ie:	Ionization energy
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