1,1-diethoxytetradecane

Inchi: InChI=1S/C18H38O2/c1-4-7-8-9-10-11-12-13-14-15-16-17-18(19-5-2)20-6-3/h18H,4-17H
InchiKey: YUNMFLYGTASHSJ-UHFFFAOYSA-N
Formula: C18H38O2
SMILES: CCCCCCCCCCCCCC(OCC)OCC
Mol. weight [g/mol]: 286.49

Physical Properties

Property code	Value	Unit	Source
gf	-111.76	kJ/mol	Joback Method
hf	-684.57	kJ/mol	Joback Method
hfus	41.23	kJ/mol	Joback Method
hvap	60.09	kJ/mol	Joback Method
log10ws	-6.14		Crippen Method
logp	6.087		Crippen Method
mcvol	276.220	ml/mol	McGowan Method
pc	1132.15	kPa	Joback Method
ripol	2035.00		NIST Webbook
ripol	2035.00		NIST Webbook
tb	655.64	K	Joback Method
tc	818.50	K	Joback Method
tf	322.08	K	Joback Method
vc	1.073	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	790.06	J/mol×K	655.64	Joback Method
cpg	809.94	J/mol×K	682.78	Joback Method
cpg	829.01	J/mol×K	709.93	Joback Method
cpg	847.29	J/mol×K	737.07	Joback Method
cpg	864.78	J/mol×K	764.21	Joback Method
cpg	881.51	J/mol×K	791.35	Joback Method
cpg	897.47	J/mol×K	818.50	Joback Method
dvisc	0.0025528	Pa×s	322.08	Joback Method

dvisc	0.0008975	Pa×s	377.67	Joback Method
dvisc	0.0004126	Pa×s	433.27	Joback Method
dvisc	0.0002264	Pa×s	488.86	Joback Method
dvisc	0.0001404	Pa×s	544.45	Joback Method
dvisc	0.0000951	Pa×s	600.05	Joback Method
dvisc	0.0000689	Pa×s	655.64	Joback Method

Sources

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=R340715&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume