1,1-diethoxypentadecane

Inchi: InChI=1S/C19H40O2/c1-4-7-8-9-10-11-12-13-14-15-16-17-18-19(20-5-2)21-6-3/h19H,4-1
InchiKey: VTNCAVBSMAVCDT-UHFFFAOYSA-N
Formula: C19H40O2
SMILES: CCCCCCCCCCCCCCC(OCC)OCC
Mol. weight [g/mol]: 300.52

Physical Properties

Property code	Value	Unit	Source
gf	-103.34	kJ/mol	Joback Method
hf	-705.21	kJ/mol	Joback Method
hfus	43.82	kJ/mol	Joback Method
hvap	62.32	kJ/mol	Joback Method
log10ws	-6.56		Crippen Method
logp	6.477		Crippen Method
mcvol	290.310	ml/mol	McGowan Method
pc	1062.40	kPa	Joback Method
ripol	2132.00		NIST Webbook
tb	678.52	K	Joback Method
tc	842.44	K	Joback Method
tf	333.35	K	Joback Method
vc	1.129	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	849.09	J/mol×K	678.52	Joback Method
cpg	869.42	J/mol×K	705.84	Joback Method
cpg	888.89	J/mol×K	733.16	Joback Method
cpg	907.53	J/mol×K	760.48	Joback Method
cpg	925.35	J/mol×K	787.80	Joback Method
cpg	942.35	J/mol×K	815.12	Joback Method
cpg	958.56	J/mol×K	842.44	Joback Method
dvisc	0.0022896	Pa×s	333.35	Joback Method
dvisc	0.0008001	Pa×s	390.88	Joback Method

dvisc	0.0003661	Pa×s	448.41	Joback Method
dvisc	0.0002002	Pa×s	505.93	Joback Method
dvisc	0.0001238	Pa×s	563.46	Joback Method
dvisc	0.0000837	Pa×s	620.99	Joback Method
dvisc	0.0000605	Pa×s	678.52	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=R340700&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