Hexane, 1,1-diethoxy-

Other names:	Hexanal, diethyl acetal
	1,1-Diethoxyhexane
	n-Hexanal diethyl acetal
Inchi:	InChI=1S/C10H22O2/c1-4-7-8-9-10(11-5-2)12-6-3/h10H,4-9H2,1-3H3
InchiKey:	WNHOMUCDFNTSEV-UHFFFAOYSA-N
Formula:	C10H22O2
SMILES:	CCCCCC(OCC)OCC
Mol. weight [g/mol]:	174.28
CAS:	3658-93-3

Physical Properties

Property code	Value	Unit	Source
gf	-179.12	kJ/mol	Joback Method
hf	-519.45	kJ/mol	Joback Method
hfus	20.51	kJ/mol	Joback Method
hvap	42.29	kJ/mol	Joback Method
log10ws	-2.79		Crippen Method
logp	2.966		Crippen Method
mcvol	163.500	ml/mol	McGowan Method
pc	2058.62	kPa	Joback Method
rinpol	1092.00		NIST Webbook
rinpol	1092.00		NIST Webbook
rinpol	1085.00		NIST Webbook
rinpol	1092.00		NIST Webbook
rinpol	1080.00		NIST Webbook
rinpol	1082.00		NIST Webbook
rinpol	1087.90		NIST Webbook
ripol	1242.00		NIST Webbook
ripol	1235.00		NIST Webbook
ripol	1230.00		NIST Webbook
ripol	1227.00		NIST Webbook
ripol	1238.00		NIST Webbook
ripol	1230.00		NIST Webbook
ripol	1227.00		NIST Webbook
ripol	1229.00		NIST Webbook
ripol	1227.00		NIST Webbook
ripol	1229.00		NIST Webbook

ripol	1235.00		NIST Webbook
ripol	1250.00		NIST Webbook
ripol	1232.00		NIST Webbook
ripol	1223.00		NIST Webbook
ripol	1228.00		NIST Webbook
ripol	1235.00		NIST Webbook
ripol	1242.00		NIST Webbook
tb	472.60	K	Joback Method
tc	638.49	K	Joback Method
tf	231.92	K	Joback Method
vc	0.625	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	369.40	J/mol×K	472.60	Joback Method
cpg	439.18	J/mol×K	610.84	Joback Method
cpg	426.16	J/mol×K	583.19	Joback Method
cpg	412.67	J/mol×K	555.54	Joback Method
cpg	398.71	J/mol×K	527.90	Joback Method
cpg	384.29	J/mol×K	500.25	Joback Method
cpg	451.74	J/mol×K	638.49	Joback Method
dvisc	0.0001614	Pa×s	472.60	Joback Method
dvisc	0.0002182	Pa×s	432.49	Joback Method
dvisc	0.0003135	Pa×s	392.37	Joback Method
dvisc	0.0004893	Pa×s	352.26	Joback Method
dvisc	0.0008564	Pa×s	312.15	Joback Method
dvisc	0.0017676	Pa×s	272.03	Joback Method
dvisc	0.0046878	Pa×s	231.92	Joback Method

Sources

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

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C3658933&Units=SI

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

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