Hexane, 1-(2,2-dimethoxyethoxy)-

Other names:	Acetaldehyde, (hexyloxy)-, dimethyl acetal
	Hexoxyacetaldehyde dimethylacetal
	«beta»-Hexoxyacetaldehyde dimethylacetal
	2-Hexoxyacetaldehyde dimethylacetal
	Ethane, 1,1-dimethoxy-2-hexyloxy
	1-(2,2-dimethoxyethoxy)hexane
Inchi:	InChI=1S/C10H22O3/c1-4-5-6-7-8-13-9-10(11-2)12-3/h10H,4-9H2,1-3H3
InchiKey:	LIVMHHPZBYEKCU-UHFFFAOYSA-N
Formula:	C10H22O3
SMILES:	CCCCCCOCC(OC)OC
Mol. weight [g/mol]:	190.28
CAS:	17597-95-4

Physical Properties

Property code	Value	Unit	Source
gf	-284.12	kJ/mol	Joback Method
hf	-651.67	kJ/mol	Joback Method
hfus	21.70	kJ/mol	Joback Method
hvap	44.70	kJ/mol	Joback Method
log10ws	-1.88		Crippen Method
logp	2.202		Crippen Method
mcvol	169.370	ml/mol	McGowan Method
pc	2027.23	kPa	Joback Method
rinpol	1234.00		NIST Webbook
ripol	1528.00		NIST Webbook
tb	495.02	K	Joback Method
tc	660.73	K	Joback Method
tf	254.15	K	Joback Method
vc	0.643	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	396.28	J/mol×K	495.02	Joback Method

cpg	465.40	J/mol×K	633.11	Joback Method
cpg	452.46	J/mol×K	605.49	Joback Method
cpg	439.07	J/mol×K	577.87	Joback Method
cpg	425.24	J/mol×K	550.26	Joback Method
cpg	410.97	J/mol×K	522.64	Joback Method
cpg	477.89	J/mol×K	660.73	Joback Method
dvisc	0.0001324	Pa×s	495.02	Joback Method
dvisc	0.0001778	Pa×s	454.88	Joback Method
dvisc	0.0002530	Pa×s	414.73	Joback Method
dvisc	0.0003881	Pa×s	374.58	Joback Method
dvisc	0.0006598	Pa×s	334.44	Joback Method
dvisc	0.0012966	Pa×s	294.30	Joback Method
dvisc	0.0031538	Pa×s	254.15	Joback Method

Sources

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=C17597954&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

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