Pentane, 2,2'-oxybis-

Other names: bis(1-methylbutyl) ether
Inchi: InChI=1S/C10H22O/c1-5-7-9(3)11-10(4)8-6-2/h9-10H,5-8H2,1-4H3
InchiKey: UVEFRWMGQRNNDB-UHFFFAOYSA-N
Formula: C10H22O
SMILES: CCCC(C)OC(C)CCC
Mol. weight [g/mol]: 158.28
CAS: 56762-00-6

Physical Properties

Property code	Value	Unit	Source
gf	-76.56	kJ/mol	Joback Method
hf	-392.51	kJ/mol	Joback Method
hfus	15.80	kJ/mol	Joback Method
hvap	39.49	kJ/mol	Joback Method
log10ws	-3.32		Crippen Method
logp	3.380		Crippen Method
mcvol	157.630	ml/mol	McGowan Method
pc	2106.13	kPa	Joback Method
tb	449.74	K	Joback Method
tc	619.25	K	Joback Method
tf	194.69	K	Joback Method
vc	0.602	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	342.48	J/mol×K	449.74	Joback Method
cpg	414.87	J/mol×K	591.00	Joback Method
cpg	401.45	J/mol×K	562.75	Joback Method
cpg	387.51	J/mol×K	534.50	Joback Method
cpg	373.04	J/mol×K	506.24	Joback Method
cpg	358.04	J/mol×K	477.99	Joback Method
cpg	427.77	J/mol×K	619.25	Joback Method
dvisc	0.0001845	Pa×s	449.74	Joback Method

dvisc	0.0002583	Pa×s	407.23	Joback Method
dvisc	0.0003911	Pa×s	364.72	Joback Method
dvisc	0.0006607	Pa×s	322.22	Joback Method
dvisc	0.0013091	Pa×s	279.71	Joback Method
dvisc	0.0033142	Pa×s	237.20	Joback Method
dvisc	0.0125876	Pa×s	194.69	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C56762006&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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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