Propane, 2,2'-[ethylidenebis(oxy)]bis-

Other names:	1,1-Diisopropoxyethane
	2,4,6-Trimethyl-3,5-dioxaheptane
	2-(1-propan-2-yloxyethoxy)propane
Inchi:	InChI=1S/C8H18O2/c1-6(2)9-8(5)10-7(3)4/h6-8H,1-5H3
InchiKey:	TWWSMHPNERSWRN-UHFFFAOYSA-N
Formula:	C8H18O2
SMILES:	CC(C)OC(C)OC(C)C
Mol. weight [g/mol]:	146.23
CAS:	4285-59-0

Physical Properties

Property code	Value	Unit	Source
chl	-5151.30 ± 3.50	kJ/mol	NIST Webbook
gf	-200.84	kJ/mol	Joback Method
hf	-525.90 ± 4.80	kJ/mol	NIST Webbook
hfl	-569.20 ± 3.50	kJ/mol	NIST Webbook
hfus	8.28	kJ/mol	Joback Method
hvap	43.30	kJ/mol	NIST Webbook
log10ws	-2.18		Crippen Method
logp	2.182		Crippen Method
mcvol	135.320	ml/mol	McGowan Method
pc	2510.03	kPa	Joback Method
tb	395.00 ± 3.00	K	NIST Webbook
tc	601.27	K	Joback Method
tf	179.38	K	Joback Method
vc	0.501	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	282.46	J/mol×K	425.96	Joback Method
cpg	296.02	J/mol×K	455.18	Joback Method
cpg	309.17	J/mol×K	484.40	Joback Method
cpg	321.92	J/mol×K	513.62	Joback Method

cpg	334.26	J/mol×K	542.83	Joback Method
cpg	346.18	J/mol×K	572.05	Joback Method
cpg	357.69	J/mol×K	601.27	Joback Method
dvisc	0.0165879	Pa×s	179.38	Joback Method
dvisc	0.0037875	Pa×s	220.48	Joback Method
dvisc	0.0013755	Pa×s	261.57	Joback Method
dvisc	0.0006577	Pa×s	302.67	Joback Method
dvisc	0.0003752	Pa×s	343.77	Joback Method
dvisc	0.0002413	Pa×s	384.86	Joback Method
dvisc	0.0001689	Pa×s	425.96	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=C4285590&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase 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