Methane, dipropoxy-

Other names:	Propane, 1,1'-[methylenebis(oxy)]bis-
	Dipropoxymethane
	Di-n-propoxymethane
	Di-n-propyl formal
	Propylal
	Dipropyl formal
Inchi:	InChI=1S/C7H16O2/c1-3-5-8-7-9-6-4-2/h3-7H2,1-2H3
InchiKey:	HOMDJHGZAAKUQV-UHFFFAOYSA-N
Formula:	C7H16O2
SMILES:	CCCOCOCCC
Mol. weight [g/mol]:	132.20
CAS:	505-84-0

Physical Properties

Property code	Value	Unit	Source
gf	-201.94	kJ/mol	Joback Method
hf	-452.25	kJ/mol	Joback Method
hfus	16.26	kJ/mol	Joback Method
hvap	36.00	kJ/mol	Joback Method
log10ws	-1.42		Crippen Method
logp	1.797		Crippen Method
mcvol	121.230	ml/mol	McGowan Method
pc	2701.41	kPa	Joback Method
rinpol	827.00		NIST Webbook
rinpol	827.00		NIST Webbook
rinpol	832.00		NIST Webbook
tb	404.40	K	Joback Method
tc	569.26	K	Joback Method
tf	213.11	K	Joback Method
vc	0.464	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	242.33	J/mol×K	404.40	Joback Method
cpg	253.59	J/mol×K	431.88	Joback Method
cpg	264.58	J/mol×K	459.35	Joback Method
cpg	275.28	J/mol×K	486.83	Joback Method
cpg	285.69	J/mol×K	514.30	Joback Method
cpg	295.82	J/mol×K	541.78	Joback Method
cpg	305.65	J/mol×K	569.26	Joback Method
dvisc	0.0029460	Pa×s	213.11	Joback Method
dvisc	0.0014040	Pa×s	244.99	Joback Method
dvisc	0.0007936	Pa×s	276.87	Joback Method
dvisc	0.0005047	Pa×s	308.75	Joback Method
dvisc	0.0003493	Pa×s	340.64	Joback Method
dvisc	0.0002575	Pa×s	372.52	Joback Method
dvisc	0.0001992	Pa×s	404.40	Joback Method

Sources

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
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C505840&Units=SI

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
tb: Normal Boiling Point Temperature
tc: Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume