1,2-Cycloheptanediol, trans-

Other names: trans-cycloheptane-1,2-diol
Inchi: InChI=1S/C7H14O2/c8-6-4-2-1-3-5-7(6)9/h6-9H,1-5H2
InchiKey: DCYPPXGEIQTVPI-UHFFFAOYSA-N
Formula: C7H14O2
SMILES: OC1CCCCCC1O
Mol. weight [g/mol]: 130.18
CAS: 13553-19-0

Physical Properties

Property code	Value	Unit	Source
gf	-260.94	kJ/mol	Joback Method
hf	-464.45	kJ/mol	Joback Method
hfus	12.87	kJ/mol	Joback Method
hvap	64.83	kJ/mol	Joback Method
log10ws	-1.40		Crippen Method
logp	0.672		Crippen Method
mcvol	110.370	ml/mol	McGowan Method
pc	4391.59	kPa	Joback Method
tb	563.07	K	Joback Method
tc	751.50	K	Joback Method
tf	289.91	K	Joback Method
vc	0.390	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	287.46	J/mol×K	563.07	Joback Method
cpg	300.23	J/mol×K	594.48	Joback Method
cpg	312.37	J/mol×K	625.88	Joback Method
cpg	323.89	J/mol×K	657.29	Joback Method
cpg	334.79	J/mol×K	688.69	Joback Method
cpg	345.09	J/mol×K	720.10	Joback Method
cpg	354.78	J/mol×K	751.50	Joback Method
dvisc	0.0891453	Pa×s	289.91	Joback Method

dvisc	0.0108501	Pa×s	335.44	Joback Method
dvisc	0.0021846	Pa×s	380.96	Joback Method
dvisc	0.0006193	Pa×s	426.49	Joback Method
dvisc	0.0002239	Pa×s	472.02	Joback Method
dvisc	0.0000968	Pa×s	517.54	Joback Method
dvisc	0.0000479	Pa×s	563.07	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C13553190&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume