

1,3-Cyclopentane-1,3-diol, cis-

Other names:	(Z)-1,3-Cyclopentane-1,3-diol
Inchi:	InChI=1S/C5H10O2/c6-4-1-2-5(7)3-4/h4-7H,1-3H2/t4-,5+
InchiKey:	NUUPJBRGQCEZSI-SYDPRGILSA-N
Formula:	C5H10O2
SMILES:	OC1CCC(O)C1
Mol. weight [g/mol]:	102.13
CAS:	16326-97-9

Physical Properties

Property code	Value	Unit	Source
gf	-253.58	kJ/mol	Joback Method
hf	-410.85	kJ/mol	Joback Method
hfus	11.89	kJ/mol	Joback Method
hvap	60.03	kJ/mol	Joback Method
log10ws	-0.56		Crippen Method
logp	-0.108		Crippen Method
mccvol	82.190	ml/mol	McGowan Method
pc	5351.35	kPa	Joback Method
tb	508.77	K	Joback Method
tc	688.96	K	Joback Method
tf	274.41	K	Joback Method
vc	0.293	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	197.91	J/mol×K	508.77	Joback Method
cpg	207.46	J/mol×K	538.80	Joback Method
cpg	216.56	J/mol×K	568.83	Joback Method
cpg	225.21	J/mol×K	598.86	Joback Method
cpg	233.43	J/mol×K	628.90	Joback Method
cpg	241.23	J/mol×K	658.93	Joback Method
cpg	248.63	J/mol×K	688.96	Joback Method
dvisc	0.0881188	Paxs	274.41	Joback Method

dvisc	0.0151075	Paxs	313.47	Joback Method
dvisc	0.0038285	Paxs	352.53	Joback Method
dvisc	0.0012759	Paxs	391.59	Joback Method
dvisc	0.0005190	Paxs	430.65	Joback Method
dvisc	0.0002452	Paxs	469.71	Joback Method
dvisc	0.0001300	Paxs	508.77	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	378.20	K	0.70	NIST Webbook
tbrp	363.20	K	0.10	NIST Webbook

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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=C16326979&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
mccvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure

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

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