1,2,3,4-Tetrahydronaphthalene-trans-2,3-diol

Inchi: InChI=1S/C10H12O2/c11-9-5-7-3-1-2-4-8(7)6-10(9)12/h1-4,9-12H,5-6H2/t9-,10-/m0/s1
InchiKey: DHTGPMXCRKCPTP-UWVGGRQHSA-N
Formula: C10H12O2
SMILES: OC1Cc2ccccc2CC1O
Mol. weight [g/mol]: 164.20
CAS: 35583-16-5

Physical Properties

Property code	Value	Unit	Source
chs	-5223.30 ± 0.80	kJ/mol	NIST Webbook
gf	-96.60	kJ/mol	Joback Method
hf	-282.83	kJ/mol	Joback Method
hfus	20.59	kJ/mol	Joback Method
hvap	73.93	kJ/mol	Joback Method
log10ws	-1.72		Crippen Method
logp	0.507		Crippen Method
mcvol	128.880	ml/mol	McGowan Method
pc	4130.29	kPa	Joback Method
tb	650.56	K	Joback Method
tc	850.86	K	Joback Method
tf	373.22	K	Joback Method
vc	0.473	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	350.49	J/mol×K	650.56	Joback Method
cpg	361.80	J/mol×K	683.94	Joback Method
cpg	372.40	J/mol×K	717.33	Joback Method
cpg	382.33	J/mol×K	750.71	Joback Method
cpg	391.64	J/mol×K	784.09	Joback Method
cpg	400.35	J/mol×K	817.47	Joback Method
cpg	408.51	J/mol×K	850.86	Joback Method
dvisc	0.0052728	Pa×s	373.22	Joback Method

dvisc	0.0015606	Pa×s	419.44	Joback Method
dvisc	0.0005882	Pa×s	465.67	Joback Method
dvisc	0.0002644	Pa×s	511.89	Joback Method
dvisc	0.0001357	Pa×s	558.11	Joback Method
dvisc	0.0000771	Pa×s	604.34	Joback Method
dvisc	0.0000475	Pa×s	650.56	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=C35583165&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

chs:	Standard solid 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
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