

cis-1,2-Cyclodecanediol

Inchi:	InChI=1S/C10H20O2/c11-9-7-5-3-1-2-4-6-8-10(9)12/h9-12H,1-8H2
InchiKey:	NVGYZORHPOIGFP-UHFFFAOYSA-N
Formula:	C10H20O2
SMILES:	OC1CCCCCCCCC1O
Mol. weight [g/mol]:	172.26
CAS:	30572-96-4

Physical Properties

Property code	Value	Unit	Source
gf	-271.98	kJ/mol	Joback Method
hf	-544.85	kJ/mol	Joback Method
hfus	14.34	kJ/mol	Joback Method
hvap	72.02	kJ/mol	Joback Method
log10ws	-2.65		Crippen Method
logp	1.843		Crippen Method
mcvol	152.640	ml/mol	McGowan Method
pc	3372.36	kPa	Joback Method
tb	644.52	K	Joback Method
tc	843.67	K	Joback Method
tf	313.16	K	Joback Method
vc	0.533	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	441.89	J/molxK	644.52	Joback Method
cpg	458.76	J/molxK	677.71	Joback Method
cpg	474.65	J/molxK	710.90	Joback Method
cpg	489.56	J/molxK	744.09	Joback Method
cpg	503.49	J/molxK	777.28	Joback Method
cpg	516.44	J/molxK	810.47	Joback Method
cpg	528.40	J/molxK	843.67	Joback Method
dvisc	0.0647375	Paxs	313.16	Joback Method
dvisc	0.0048311	Paxs	368.39	Joback Method

dvisc	0.0007093	Paxs	423.61	Joback Method
dvisc	0.0001621	Paxs	478.84	Joback Method
dvisc	0.0000503	Paxs	534.07	Joback Method
dvisc	0.0000194	Paxs	589.29	Joback Method
dvisc	0.0000088	Paxs	644.52	Joback Method

Sources

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=C30572964&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071

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

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