

Cyclodecanol

Inchi:	InChI=1S/C10H20O/c11-10-8-6-4-2-1-3-5-7-9-10/h10-11H,1-9H2
InchiKey:	WFRBMXFCEAHLGH-UHFFFAOYSA-N
Formula:	C10H20O
SMILES:	OC1CCCCCCCCC1
Mol. weight [g/mol]:	156.27
CAS:	1502-05-2

Physical Properties

Property code	Value	Unit	Source
gf	-127.45	kJ/mol	Joback Method
hf	-372.28	kJ/mol	Joback Method
hfus	9.18	kJ/mol	Joback Method
hvap	55.65	kJ/mol	Joback Method
log10ws	-3.28		Crippen Method
logp	2.872		Crippen Method
mcvol	146.770	ml/mol	McGowan Method
pc	3152.62	kPa	Joback Method
tb	557.01	K	Joback Method
tc	770.36	K	Joback Method
tf	315.00 ± 3.00	K	NIST Webbook
vc	0.515	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	477.24	J/mol×K	770.36	Joback Method
cpg	462.55	J/mol×K	734.80	Joback Method
cpg	446.77	J/mol×K	699.25	Joback Method
cpg	429.91	J/mol×K	663.69	Joback Method
cpg	411.96	J/mol×K	628.13	Joback Method
cpg	392.91	J/mol×K	592.57	Joback Method
cpg	372.77	J/mol×K	557.01	Joback Method
dvisc	0.1744654	Paxs	256.58	Joback Method
dvisc	0.0000433	Paxs	557.01	Joback Method

dvisc	0.0000872	Paxs	506.94	Joback Method
dvisc	0.0002047	Paxs	456.87	Joback Method
dvisc	0.0005932	Paxs	406.79	Joback Method
dvisc	0.0023178	Paxs	356.72	Joback Method
dvisc	0.0141311	Paxs	306.65	Joback Method
hsubt	100.50 ± 0.50	kJ/mol	289.50	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=C1502052&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
hsubt:	Enthalpy of sublimation at a given temperature
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

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