Cyclododecanol

Inchi: InChI=1S/C12H24O/c13-12-10-8-6-4-2-1-3-5-7-9-11-12/h12-13H,1-11H2
InchiKey: SFVWPXMPRCIVOK-UHFFFAOYSA-N
Formula: C12H24O
SMILES: OC1CCCCCCCCCCC1
Mol. weight [g/mol]: 184.32
CAS: 1724-39-6

Physical Properties

Property code	Value	Unit	Source
gf	-134.81	kJ/mol	Joback Method
hf	-425.88	kJ/mol	Joback Method
hfus	10.16	kJ/mol	Joback Method
hvap	60.45	kJ/mol	Joback Method
ie	9.26 ± 0.03	eV	NIST Webbook
log10ws	-4.12		Crippen Method
logp	3.652		Crippen Method
mcvol	174.950	ml/mol	McGowan Method
pc	2704.22	kPa	Joback Method
rinpol	1575.60		NIST Webbook
rinpol	1544.20		NIST Webbook
rinpol	1555.90		NIST Webbook
rinpol	1575.60		NIST Webbook
rinpol	1555.90		NIST Webbook
rinpol	1544.20		NIST Webbook
ripol	2152.40		NIST Webbook
ripol	2123.30		NIST Webbook
ripol	2103.80		NIST Webbook
ripol	2152.40		NIST Webbook
ripol	2123.30		NIST Webbook
ripol	2103.80		NIST Webbook
tb	611.31	K	Joback Method
tc	831.83	K	Joback Method
tf	272.08	K	Joback Method
vc	0.612	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	582.34	J/mol×K	795.08	Joback Method
cpg	598.30	J/mol×K	831.83	Joback Method
cpg	481.23	J/mol×K	611.31	Joback Method
cpg	504.27	J/mol×K	648.06	Joback Method
cpg	525.90	J/mol×K	684.82	Joback Method
cpg	546.13	J/mol×K	721.57	Joback Method
cpg	564.95	J/mol×K	758.32	Joback Method
dvisc	0.0000151	Pa×s	611.31	Joback Method
dvisc	0.0000323	Pa×s	554.77	Joback Method
dvisc	0.1664242	Pa×s	272.08	Joback Method
dvisc	0.0092835	Pa×s	328.62	Joback Method
dvisc	0.0012084	Pa×s	385.16	Joback Method
dvisc	0.0002651	Pa×s	441.69	Joback Method
dvisc	0.0000821	Pa×s	498.23	Joback Method
hvapt	57.10	kJ/mol	512.00	NIST Webbook
hvapt	68.80	kJ/mol	436.50	NIST Webbook

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=C1724396&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

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

hvapt:	Enthalpy of vaporization at a given temperature
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume