Cyclohexane, 1,4-diethyl

Inchi: InChI=1S/C10H20/c1-3-9-5-7-10(4-2)8-6-9/h9-10H,3-8H2,1-2H3
InchiKey: SMAKEJNOUFLEEJ-UHFFFAOYSA-N
Formula: C10H20
SMILES: CCC1CCC(CC)CC1
Mol. weight [g/mol]: 140.27

Physical Properties

Property code	Value	Unit	Source
gf	50.06	kJ/mol	Joback Method
hf	-215.75	kJ/mol	Joback Method
hfus	14.56	kJ/mol	Joback Method
hvap	37.97	kJ/mol	Joback Method
log10ws	-3.42		Crippen Method
logp	3.613		Crippen Method
mcvol	140.900	ml/mol	McGowan Method
pc	2485.07	kPa	Joback Method
rinpol	1032.00		NIST Webbook
rinpol	1105.00		NIST Webbook
rinpol	1072.00		NIST Webbook
rinpol	1072.00		NIST Webbook
rinpol	1060.00		NIST Webbook
tb	443.08	K	Joback Method
tc	639.52	K	Joback Method
tf	205.60	K	Joback Method
vc	0.527	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	299.73	J/mol×K	443.08	Joback Method
cpg	319.51	J/mol×K	475.82	Joback Method
cpg	338.41	J/mol×K	508.56	Joback Method
cpg	356.42	J/mol×K	541.30	Joback Method
cpg	373.57	J/mol×K	574.04	Joback Method

cpg	389.89	J/mol×K	606.78	Joback Method
cpg	405.38	J/mol×K	639.52	Joback Method
dvisc	0.0050164	Pa×s	205.60	Joback Method
dvisc	0.0020679	Pa×s	245.18	Joback Method
dvisc	0.0010906	Pa×s	284.76	Joback Method
dvisc	0.0006724	Pa×s	324.34	Joback Method
dvisc	0.0004605	Pa×s	363.92	Joback Method
dvisc	0.0003397	Pa×s	403.50	Joback Method
dvisc	0.0002646	Pa×s	443.08	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=R443&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
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume