

Tetracyclo[7.1.0.02,4.05,7]decane(1«alpha»,2«alpha»)

Inchi:	InChI=1S/C10H14/c1-5-2-7(5)9-4-10(9)8-3-6(1)8/h5-10H,1-4H2/t5-,6+,7+,8-,9-,10-/m0/s1
InchiKey:	DXVRHBRLEFLZRW-RSMBBCMNP
Formula:	C10H14
SMILES:	C1C2CC2C2CC2C2CC12
Mol. weight [g/mol]:	134.22
CAS:	62279-35-0

Physical Properties

Property code	Value	Unit	Source
gf	285.10	kJ/mol	Joback Method
hf	13.11	kJ/mol	Joback Method
hfus	20.54	kJ/mol	Joback Method
hvap	36.54	kJ/mol	Joback Method
ie	8.88	eV	NIST Webbook
log10ws	-2.14		Crippen Method
logp	2.298		Crippen Method
mcvol	108.320	ml/mol	McGowan Method
pc	3177.55	kPa	Joback Method
tb	437.28	K	Joback Method
tc	642.66	K	Joback Method
tf	272.78	K	Joback Method
vc	0.438	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	259.25	J/mol×K	437.28	Joback Method
cpg	279.17	J/mol×K	471.51	Joback Method
cpg	297.53	J/mol×K	505.74	Joback Method
cpg	314.45	J/mol×K	539.97	Joback Method
cpg	330.07	J/mol×K	574.20	Joback Method
cpg	344.49	J/mol×K	608.43	Joback Method
cpg	357.85	J/mol×K	642.66	Joback Method
dvisc	0.0002380	Pa×s	272.78	Joback Method

dvisc	0.0004252	Pa×s	300.20	Joback Method
dvisc	0.0006894	Pa×s	327.61	Joback Method
dvisc	0.0010374	Pa×s	355.03	Joback Method
dvisc	0.0014722	Pa×s	382.45	Joback Method
dvisc	0.0019936	Pa×s	409.86	Joback Method
dvisc	0.0025990	Pa×s	437.28	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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=C62279350&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
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
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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