Cyclooctane, 1,1-dimethyl

Inchi: InChI=1S/C10H20/c1-10(2)8-6-4-3-5-7-9-10/h3-9H2,1-2H3
InchiKey: QEHFDLMARNTXIZ-UHFFFAOYSA-N
Formula: C10H20
SMILES: CC1(C)CCCCCCC1
Mol. weight [g/mol]: 140.27

Physical Properties

Property code	Value	Unit	Source
gf	28.08	kJ/mol	Joback Method
hf	-192.49	kJ/mol	Joback Method
hfus	2.99	kJ/mol	Joback Method
hvap	37.48	kJ/mol	Joback Method
log10ws	-3.66		Crippen Method
logp	3.757		Crippen Method
mcvol	140.900	ml/mol	McGowan Method
pc	2835.36	kPa	Joback Method
rinpol	1046.00		NIST Webbook
tb	456.53	K	Joback Method
tc	679.03	K	Joback Method
tf	226.70	K	Joback Method
vc	0.510	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	300.53	J/mol×K	456.53	Joback Method
cpg	322.79	J/mol×K	493.61	Joback Method
cpg	343.64	J/mol×K	530.70	Joback Method
cpg	363.19	J/mol×K	567.78	Joback Method
cpg	381.53	J/mol×K	604.86	Joback Method
cpg	398.79	J/mol×K	641.94	Joback Method
cpg	415.07	J/mol×K	679.03	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=R133389&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
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