4,4,7,7-Tetramethylcyclodecene trans

Inchi: InChI=1S/C14H26/c1-13(2)9-7-5-6-8-10-14(3,4)12-11-13/h5,7H,6,8-12H2,1-4H3/b7-5+
InchiKey: XUWUSDXUASTJCZ-FNORWQNLSA-N
Formula: C14H26
SMILES: CC1(C)CC=CCCCC(C)(C)CC1
Mol. weight [g/mol]: 194.36
CAS: 2198-43-8

Physical Properties

Property code	Value	Unit	Source
gf	54.32	kJ/mol	Joback Method
hf	-234.69	kJ/mol	Joback Method
hfus	5.15	kJ/mol	Joback Method
hvap	45.56	kJ/mol	Joback Method
log10ws	-4.95		Crippen Method
logp	4.949		Crippen Method
mcvol	192.960	ml/mol	McGowan Method
pc	2135.43	kPa	Joback Method
tb	551.32	K	Joback Method
tc	787.24	K	Joback Method
tf	285.16	K	Joback Method
vc	0.702	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	483.66	J/mol×K	551.32	Joback Method
cpg	509.66	J/mol×K	590.64	Joback Method
cpg	534.00	J/mol×K	629.96	Joback Method
cpg	556.91	J/mol×K	669.28	Joback Method
cpg	578.61	J/mol×K	708.60	Joback Method
cpg	599.33	J/mol×K	747.92	Joback Method
cpg	619.29	J/mol×K	787.24	Joback Method

Sources

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=C2198438&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume