Tetrahydro-alpha--tri-cyclopentadiene

Inchi: InChI=1S/C15H22/c1-2-10-11(3-1)13-7-12(10)14-8-4-5-9(6-8)15(13)14/h8-15H,1-7H2
InchiKey: SUUFUDGKCFRARM-UHFFFAOYSA-N
Formula: C15H22
SMILES: C1CC2C(C1)C1CC2C2C3CCC(C3)C12
Mol. weight [g/mol]: 202.34
CAS: 75172-86-0

Physical Properties

Property code	Value	Unit	Source
chs	-8935.40	kJ/mol	NIST Webbook
gf	356.04	kJ/mol	Joback Method
hf	-49.95	kJ/mol	Joback Method
hfus	28.49	kJ/mol	Joback Method
hvap	47.62	kJ/mol	Joback Method
log10ws	-3.64		Crippen Method
logp	3.715		Crippen Method
mcvol	167.910	ml/mol	McGowan Method
pc	2252.53	kPa	Joback Method
tb	562.29	K	Joback Method
tc	783.52	K	Joback Method
tf	335.79	K	Joback Method
vc	0.657	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	495.75	J/mol×K	562.29	Joback Method
cpg	520.98	J/mol×K	599.16	Joback Method
cpg	544.34	J/mol×K	636.03	Joback Method
cpg	566.01	J/mol×K	672.91	Joback Method
cpg	586.16	J/mol×K	709.78	Joback Method
cpg	604.97	J/mol×K	746.65	Joback Method
cpg	622.62	J/mol×K	783.52	Joback Method
dvisc	0.0019631	Pa×s	335.79	Joback Method

dvisc	0.0031769	Pa×s	373.54	Joback Method
dvisc	0.0047063	Pa×s	411.29	Joback Method
dvisc	0.0065262	Pa×s	449.04	Joback Method
dvisc	0.0086024	Pa×s	486.79	Joback Method
dvisc	0.0108972	Pa×s	524.54	Joback Method
dvisc	0.0133727	Pa×s	562.29	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C75172860&Units=SI
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

Legend

chs:	Standard solid enthalpy of combustion
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume