

Tetra-cyclopentadiene

Inchi:	InChI=1S/C20H24/c1-2-11-12(3-1)14-7-13(11)19-15-8-16(20(14)19)18-10-5-4-9(6-10)17
InchiKey:	PWYIZVNRLAFOR-UHFFFAOYSA-N
Formula:	C20H24
SMILES:	C1=CC2C(C1)C1CC2C2C3CC(C4C5C=CC(C5)C34)C12
Mol. weight [g/mol]:	264.40
CAS:	23197-86-6

Physical Properties

Property code	Value	Unit	Source
chs	-11426.00	kJ/mol	NIST Webbook
gf	576.24	kJ/mol	Joback Method
hf	73.49	kJ/mol	Joback Method
hfus	44.40	kJ/mol	Joback Method
hvap	58.37	kJ/mol	Joback Method
log10ws	-4.26		Crippen Method
logp	4.149		Crippen Method
mcvol	208.040	ml/mol	McGowan Method
pc	1816.95	kPa	Joback Method
tb	674.88	K	Joback Method
tc	902.87	K	Joback Method
tf	424.58	K	Joback Method
vc	0.830	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	704.24	J/molxK	674.88	Joback Method
cpg	812.82	J/molxK	864.88	Joback Method
cpg	793.48	J/molxK	826.88	Joback Method
cpg	773.22	J/molxK	788.88	Joback Method
cpg	751.77	J/molxK	750.88	Joback Method
cpg	728.87	J/molxK	712.88	Joback Method
cpg	831.52	J/molxK	902.87	Joback Method
dvisc	0.3174324	Paxs	674.88	Joback Method

dvisc	0.2354436	Paxs	633.16	Joback Method
dvisc	0.1674238	Paxs	591.45	Joback Method
dvisc	0.1130511	Paxs	549.73	Joback Method
dvisc	0.0715687	Paxs	508.01	Joback Method
dvisc	0.0417489	Paxs	466.30	Joback Method
dvisc	0.0219063	Paxs	424.58	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=C23197866&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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

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