1,5-Cyclooctadiene, 3,4-dimethyl-

Other names: 3,4-dimethyl-1,5-cyclooctadiene
Inchi: InChI=1S/C10H16/c1-9-7-5-3-4-6-8-10(9)2/h5-10H,3-4H2,1-2H3/b7-5-,8-6-
InchiKey: SAOXWIPRWNIEIH-SFECMWDFSA-N
Formula: C10H16
SMILES: CC1C=CCCC=CC1C
Mol. weight [g/mol]: 136.23
CAS: 21284-05-9

Physical Properties

Property code	Value	Unit	Source
gf	85.78	kJ/mol	Joback Method
hf	-112.51	kJ/mol	Joback Method
hfus	12.81	kJ/mol	Joback Method
hvap	38.90	kJ/mol	Joback Method
log10ws	-3.13		Crippen Method
logp	3.165		Crippen Method
mcvol	132.300	ml/mol	McGowan Method
pc	2817.33	kPa	Joback Method
tb	449.94	K	Joback Method
tc	666.97	K	Joback Method
tf	200.08	K	Joback Method
vc	0.483	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	269.49	J/mol×K	449.94	Joback Method
cpg	289.13	J/mol×K	486.11	Joback Method
cpg	307.79	J/mol×K	522.28	Joback Method
cpg	325.49	J/mol×K	558.46	Joback Method
cpg	342.23	J/mol×K	594.63	Joback Method
cpg	358.03	J/mol×K	630.80	Joback Method
cpg	372.90	J/mol×K	666.97	Joback Method
dvisc	0.0081387	Pa×s	200.08	Joback Method

dvisc	0.0025151	Pa×s	241.72	Joback Method
dvisc	0.0010976	Pa×s	283.37	Joback Method
dvisc	0.0005924	Pa×s	325.01	Joback Method
dvisc	0.0003678	Pa×s	366.65	Joback Method
dvisc	0.0002517	Pa×s	408.30	Joback Method
dvisc	0.0001848	Pa×s	449.94	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C21284059&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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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
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