

Cyclooctene, 1,2-dimethyl-

Other names:	1,2-dimethylcyclooctene
Inchi:	InChI=1S/C10H18/c1-9-7-5-3-4-6-8-10(9)2/h3-8H2,1-2H3/b10-9-
InchiKey:	SFGYZTPBAOYZTF-KTKRTIGZSA-N
Formula:	C10H18
SMILES:	CC1=C(C)CCCCC1
Mol. weight [g/mol]:	138.25
CAS:	54299-96-6

Physical Properties

Property code	Value	Unit	Source
gf	51.98	kJ/mol	Joback Method
hf	-152.55	kJ/mol	Joback Method
hfus	8.66	kJ/mol	Joback Method
hvap	40.55	kJ/mol	Joback Method
log10ws	-3.76		Crippen Method
logp	3.677		Crippen Method
mcvol	136.600	ml/mol	McGowan Method
pc	2817.33	kPa	Joback Method
tb	470.08	K	Joback Method
tc	688.19	K	Joback Method
tf	232.84	K	Joback Method
vc	0.499	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	287.36	J/mol×K	470.08	Joback Method
cpg	374.37	J/mol×K	651.84	Joback Method
cpg	358.80	J/mol×K	615.48	Joback Method
cpg	342.33	J/mol×K	579.13	Joback Method
cpg	324.94	J/mol×K	542.78	Joback Method
cpg	306.62	J/mol×K	506.43	Joback Method
cpg	389.04	J/mol×K	688.19	Joback Method
dvisc	0.0001610	Paxs	470.08	Joback Method

dvisc	0.0002312	Paxs	430.54	Joback Method
dvisc	0.0003572	Paxs	391.00	Joback Method
dvisc	0.0006087	Paxs	351.46	Joback Method
dvisc	0.0011874	Paxs	311.92	Joback Method
dvisc	0.0028119	Paxs	272.38	Joback Method
dvisc	0.0089243	Paxs	232.84	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C54299966&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

Legend

cp_g:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
g_f:	Standard Gibbs free energy of formation
h_f:	Enthalpy of formation at standard conditions
h_{fus}:	Enthalpy of fusion at standard conditions
h_{vap}:	Enthalpy of vaporization at standard conditions
log₁₀ws:	Log ₁₀ of Water solubility in mol/l
log_p:	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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