

Cyclopentane, 1,2,3-trimethyl-

Other names:	1,2,3-Trimethylcyclopentane
Inchi:	InChI=1S/C8H16/c1-6-4-5-7(2)8(6)3/h6-8H,4-5H2,1-3H3
InchiKey:	VCWNHOPGKQCXIQ-UHFFFAOYSA-N
Formula:	C8H16
SMILES:	CC1CCC(C)C1C
Mol. weight [g/mol]:	112.21
CAS:	2815-57-8

Physical Properties

Property code	Value	Unit	Source
gf	37.61	kJ/mol	Joback Method
hf	-188.65	kJ/mol	Joback Method
hfus	12.55	kJ/mol	Joback Method
hvap	33.04	kJ/mol	Joback Method
log10ws	-2.34		Crippen Method
logp	2.688		Crippen Method
mcvol	112.720	ml/mol	McGowan Method
pc	2853.57	kPa	Joback Method
rinpol	802.00		NIST Webbook
rinpol	748.00		NIST Webbook
rinpol	749.00		NIST Webbook
rinpol	747.00		NIST Webbook
rinpol	749.00		NIST Webbook
rinpol	748.00		NIST Webbook
rinpol	778.00		NIST Webbook
rinpol	750.00		NIST Webbook
rinpol	747.00		NIST Webbook
rinpol	773.00		NIST Webbook
rinpol	750.00		NIST Webbook
rinpol	780.00		NIST Webbook
rinpol	748.00		NIST Webbook
rinpol	798.00		NIST Webbook
rinpol	756.00		NIST Webbook
rinpol	797.00		NIST Webbook
rinpol	740.00		NIST Webbook
rinpol	756.00		NIST Webbook
tb	388.38	K	Joback Method

tc	579.97	K	Joback Method
tf	182.34	K	Joback Method
vc	0.422	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	213.62	J/mol×K	388.38	Joback Method
cpg	291.26	J/mol×K	548.04	Joback Method
cpg	277.08	J/mol×K	516.11	Joback Method
cpg	262.24	J/mol×K	484.17	Joback Method
cpg	246.72	J/mol×K	452.24	Joback Method
cpg	230.52	J/mol×K	420.31	Joback Method
cpg	304.79	J/mol×K	579.97	Joback Method
dvisc	0.0002619	Paxs	388.38	Joback Method
dvisc	0.0002952	Paxs	354.04	Joback Method
dvisc	0.0003414	Paxs	319.70	Joback Method
dvisc	0.0004089	Paxs	285.36	Joback Method
dvisc	0.0005145	Paxs	251.02	Joback Method
dvisc	0.0006962	Paxs	216.68	Joback Method
dvisc	0.0010560	Paxs	182.34	Joback Method

Sources

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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2815578&Units=SI

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
rinpola:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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