Cyclopentane, 1,2,3-trimethyl-, (1«alpha»,2«alpha»,3«alpha»)-

Other names: 1,2(cis),3(cis)-trimethylcyclopentane
1,2,3-Trimethylcyclopentane, (Z,Z)-
1,2,3-Trimethylcyclopentane, cis, cis
1,cis-2,cis-3-Trimethylcyclopentane
Cyclopentane, 1,2,3-trimethyl-, cis-1,2,cis-1,3-

Inchi: InChI=1S/C8H16/c1-6-4-5-7(2)8(6)3/h6-8H,4-5H2,1-3H3/t6-,7+,8-

InchiKey: VCWNHOPGKQCXIQ-RNLVFQAGSA-N

Formula: C8H16

SMILES: CC1CCC(C)C1C

Mol. weight [g/mol]: 112.21

CAS: 2613-69-6

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	797.00		NIST Webbook
rinpol	836.00		NIST Webbook
rinpol	802.00		NIST Webbook
rinpol	808.00		NIST Webbook
rinpol	797.00		NIST Webbook
rinpol	801.00		NIST Webbook
rinpol	783.00		NIST Webbook
rinpol	806.00		NIST Webbook
rinpol	809.00		NIST Webbook
rinpol	833.00		NIST Webbook
rinpol	821.00		NIST Webbook
rinpol	797.20		NIST Webbook
rinpol	801.40		NIST Webbook
rinpol	803.00		NIST Webbook
rinpol	798.00		NIST Webbook

rinpol	797.00		NIST Webbook
rinpol	829.00		NIST Webbook
rinpol	822.00		NIST Webbook
rinpol	802.70		NIST Webbook
rinpol	802.30		NIST Webbook
rinpol	803.00		NIST Webbook
rinpol	802.20		NIST Webbook
rinpol	783.00		NIST Webbook
tb	395.20 ± 1.50	K	NIST Webbook
tb	396.20	K	NIST Webbook
tb	395.20 ± 0.70	K	NIST Webbook
tb	395.20 ± 2.00	K	NIST Webbook
tb	396.00 ± 2.00	K	NIST Webbook
tb	395.95 ± 0.30	K	NIST Webbook
tc	579.97	K	Joback Method
tf	156.67 ± 0.07	K	NIST Webbook
tf	156.69 ± 0.05	K	NIST Webbook
tf	156.72 ± 0.03	K	NIST Webbook
tf	156.45 ± 0.20	K	NIST Webbook
vc	0.422	m3/kmol	Joback Method

Temperature Dependent Properties

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

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.37714e+01
Coeff. B	-3.11604e+03
Coeff. C	-5.57110e+01
Temperature range (K), min.	286.81
Temperature range (K), max.	424.04

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2613696&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
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

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
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume