Cyclopentane, 1-methyl-2-(4-methylpentyl)-, trans-

Other names: trans-1-Methyl-2-(4-methylpentyl)cyclopentane
Inchi: InChI=1S/C12H24/c1-10(2)6-4-8-12-9-5-7-11(12)3/h10-12H,4-9H2,1-3H3/t11-,12-/m1/s1
InchiKey: YWCSZNJUSYMHHA-VXGBXAGGSA-N
Formula: C12H24
SMILES: CC(C)CCCC1CCCC1C
Mol. weight [g/mol]: 168.32
CAS: 66553-50-2

Physical Properties

Property code	Value	Unit	Source
gf	76.56	kJ/mol	Joback Method
hf	-256.15	kJ/mol	Joback Method
hfus	18.32	kJ/mol	Joback Method
hvap	41.87	kJ/mol	Joback Method
log10ws	-4.02		Crippen Method
logp	4.249		Crippen Method
mcvol	169.080	ml/mol	McGowan Method
pc	2038.23	kPa	Joback Method
rinpol	1151.80		NIST Webbook
tb	484.13	K	Joback Method
tc	673.31	K	Joback Method
tf	216.66	K	Joback Method
vc	0.641	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	394.42	J/mol×K	484.13	Joback Method
cpg	415.16	J/mol×K	515.66	Joback Method
cpg	434.94	J/mol×K	547.19	Joback Method
cpg	453.78	J/mol×K	578.72	Joback Method
cpg	471.71	J/mol×K	610.25	Joback Method
cpg	488.76	J/mol×K	641.78	Joback Method
cpg	504.95	J/mol×K	673.31	Joback Method

dvisc	0.0051591	Pa×s	216.66	Joback Method
dvisc	0.0020997	Pa×s	261.24	Joback Method
dvisc	0.0011106	Pa×s	305.82	Joback Method
dvisc	0.0006908	Pa×s	350.39	Joback Method
dvisc	0.0004783	Pa×s	394.97	Joback Method
dvisc	0.0003568	Pa×s	439.55	Joback Method
dvisc	0.0002809	Pa×s	484.13	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C66553502&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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume