7-Oxabicyclo[2.2.1]heptane, 1-methyl-4-(1-methylethyl)-

Other names:	p-Menthane, 1,4-epoxy
	Isocineole
	1,4-Cineol
	1,4-Cineole
	1,4-Epoxy-p-menthane
	7-Oxabicyclo(2.2.1)heptane, 1-isopropyl-4-methyl-
	1-methyl-4-(1-methylethyl)-7-oxabicyclo[2.2.1]heptane
Inchi:	InChI=1S/C10H18O/c1-8(2)10-6-4-9(3,11-10)5-7-10/h8H,4-7H2,1-3H3
InchiKey:	RFFOTVCVTJUTAD-UHFFFAOYSA-N
Formula:	C10H18O
SMILES:	CC(C)C12CCC(C)(CC1)O2
Mol. weight [g/mol]:	154.25
CAS:	470-67-7

Physical Properties

Property code	Value	Unit	Source
gf	43.18	kJ/mol	Joback Method
hf	-217.09	kJ/mol	Joback Method
hfus	7.69	kJ/mol	Joback Method
hvap	39.67	kJ/mol	Joback Method
log10ws	-2.87		Crippen Method
logp	2.744		Crippen Method
mcvol	135.910	ml/mol	McGowan Method
pc	3072.75	kPa	Joback Method
rinpol	1010.00		NIST Webbook
rinpol	1001.00		NIST Webbook
rinpol	1023.00		NIST Webbook
rinpol	1014.00		NIST Webbook
rinpol	998.00		NIST Webbook
rinpol	1011.00		NIST Webbook
rinpol	1011.00		NIST Webbook
rinpol	1033.00		NIST Webbook
rinpol	1014.00		NIST Webbook
rinpol	1006.00		NIST Webbook
rinpol	1016.00		NIST Webbook
rinpol	1010.00		NIST Webbook
rinpol	1014.00		NIST Webbook

rinpol	1016.00	NIST Webbook
rinpol	1014.00	NIST Webbook
rinpol	1017.00	NIST Webbook
rinpol	1018.00	NIST Webbook
rinpol	1009.00	NIST Webbook
rinpol	1006.00	NIST Webbook
rinpol	1008.00	NIST Webbook
rinpol	1009.00	NIST Webbook
rinpol	1009.00	NIST Webbook
rinpol	1010.00	NIST Webbook
rinpol	1010.00	NIST Webbook
rinpol	1006.00	NIST Webbook
rinpol	1018.00	NIST Webbook
rinpol	1023.00	NIST Webbook
rinpol	1018.00	NIST Webbook
rinpol	1023.00	NIST Webbook
rinpol	1008.00	NIST Webbook
rinpol	1010.00	NIST Webbook
rinpol	1016.00	NIST Webbook
rinpol	1012.00	NIST Webbook
rinpol	1014.00	NIST Webbook
rinpol	1010.00	NIST Webbook
rinpol	1000.00	NIST Webbook
rinpol	1016.00	NIST Webbook
rinpol	1016.00	NIST Webbook
rinpol	1001.00	NIST Webbook
rinpol	1016.00	NIST Webbook
rinpol	1016.00	NIST Webbook
rinpol	1018.90	NIST Webbook
rinpol	165.32	NIST Webbook
rinpol	1006.00	NIST Webbook
ripol	1186.00	NIST Webbook
ripol	1164.00	NIST Webbook
ripol	1198.00	NIST Webbook
ripol	1175.00	NIST Webbook
ripol	1192.00	NIST Webbook
ripol	1177.00	NIST Webbook
ripol	1188.00	NIST Webbook
ripol	1176.00	NIST Webbook
ripol	1179.00	NIST Webbook
ripol	1180.00	NIST Webbook
ripol	1195.00	NIST Webbook
ripol	1178.00	NIST Webbook
ripol	1188.00	NIST Webbook

ripol	1185.00		NIST Webbook
ripol	1199.00		NIST Webbook
ripol	1177.00		NIST Webbook
ripol	1199.00		NIST Webbook
ripol	1213.00		NIST Webbook
ripol	1185.00		NIST Webbook
ripol	1198.00		NIST Webbook
ripol	1185.00		NIST Webbook
ripol	1171.00		NIST Webbook
ripol	1185.00		NIST Webbook
ripol	1188.00		NIST Webbook
ripol	1169.00		NIST Webbook
ripol	1212.00		NIST Webbook
ripol	1198.00		NIST Webbook
ripol	1177.00		NIST Webbook
tb	472.94	K	Joback Method
tc	692.30	K	Joback Method
tf	294.19	K	Joback Method
vc	0.512	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	321.61	J/mol×K	472.94	Joback Method
cpg	340.77	J/mol×K	509.50	Joback Method
cpg	358.18	J/mol×K	546.06	Joback Method
cpg	374.12	J/mol×K	582.62	Joback Method
cpg	388.82	J/mol×K	619.18	Joback Method
cpg	402.55	J/mol×K	655.74	Joback Method
cpg	415.56	J/mol×K	692.30	Joback Method
hvapt	46.10	kJ/mol	368.50	NIST Webbook

Sources

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=C470677&Units=SI

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
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
hvapt:	Enthalpy of vaporization at a given temperature
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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume