7-Oxabicyclo[4.1.0]heptane, 1-methyl-4-(1-methylethenyl)-

Other names: Limonene 1,2-epoxide
p-Menth-8-ene, 1,2-epoxy-
Limonene epoxide
Limonene oxide
Limonene 1,2-oxide
Limonene monoxide
Limonen-1,2-epoxide
NSC 12045
1-Methyl-4-(1-methylvinyl)-7-oxabicyclo(4.1.0)heptane
1,2-Epoxy-p-menth-8-ene

Inchi: InChI=1S/C10H16O/c1-7(2)8-4-5-10(3)9(6-8)11-10/h8-9H,1,4-6H2,2-3H3

InchiKey: CCEFMUBVSUDRLG-UHFFFAOYSA-N

Formula: C10H16O

SMILES: C=C(C)C1CCC2(C)OC2C1

Mol. weight [g/mol]: 152.23

CAS: 1195-92-2

Physical Properties

Property code	Value	Unit	Source
gf	122.69	kJ/mol	Joback Method
hf	-131.75	kJ/mol	Joback Method
hfus	15.99	kJ/mol	Joback Method
hvap	40.31	kJ/mol	Joback Method
log10ws	-2.72		Crippen Method
logp	2.520		Crippen Method
mcvol	131.610	ml/mol	McGowan Method
pc	2944.08	kPa	Joback Method
rinpol	1133.00		NIST Webbook
rinpol	1133.00		NIST Webbook
rinpol	1138.00		NIST Webbook
rinpol	1139.00		NIST Webbook
rinpol	1120.00		NIST Webbook
rinpol	1117.00		NIST Webbook
rinpol	1117.00		NIST Webbook
rinpol	1164.00		NIST Webbook
rinpol	1136.00		NIST Webbook
rinpol	1149.00		NIST Webbook

rinpol	1119.00		NIST Webbook
rinpol	1116.00		NIST Webbook
rinpol	1119.00		NIST Webbook
rinpol	1148.00		NIST Webbook
rinpol	1137.00		NIST Webbook
rinpol	1119.00		NIST Webbook
rinpol	1133.00		NIST Webbook
rinpol	1122.00		NIST Webbook
rinpol	1148.00		NIST Webbook
rinpol	1119.00		NIST Webbook
rinpol	1122.00		NIST Webbook
rinpol	1136.00		NIST Webbook
rinpol	1120.00		NIST Webbook
rinpol	1119.00		NIST Webbook
rinpol	1132.00		NIST Webbook
rinpol	1113.00		NIST Webbook
rinpol	1116.00		NIST Webbook
ripol	1542.00		NIST Webbook
ripol	1451.00		NIST Webbook
ripol	1451.00		NIST Webbook
ripol	1450.00		NIST Webbook
tb	465.03	K	Joback Method
tc	678.77	K	Joback Method
tf	265.33	K	Joback Method
vc	0.501	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	303.56	J/mol×K	465.03	Joback Method
cpg	322.20	J/mol×K	500.65	Joback Method
cpg	339.41	J/mol×K	536.28	Joback Method
cpg	355.33	J/mol×K	571.90	Joback Method
cpg	370.12	J/mol×K	607.52	Joback Method
cpg	383.92	J/mol×K	643.14	Joback Method
cpg	396.88	J/mol×K	678.77	Joback Method

Sources

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=C1195922&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
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