«alpha»-Terpinen-7-al

Other names: p-Mentha-1,3-dien-7-al
1,3-p-menthadien-7-al
terpinen-7-al
Inchi: InChI=1S/C10H14O/c1-8(2)10-5-3-9(7-11)4-6-10/h3,5,7-8H,4,6H2,1-2H3
InchiKey: MKVBITWQDIIUMF-UHFFFAOYSA-N
Formula: C10H14O
SMILES: CC(C)C1=CC=C(C=O)CC1
Mol. weight [g/mol]: 150.22
CAS: 1197-15-5

Physical Properties

Property code	Value	Unit	Source
gf	4.18	kJ/mol	Joback Method
hf	-173.31	kJ/mol	Joback Method
hfus	12.85	kJ/mol	Joback Method
hvap	46.83	kJ/mol	Joback Method
log10ws	-2.65		Crippen Method
logp	2.488		Crippen Method
mcvol	133.870	ml/mol	McGowan Method
pc	3032.27	kPa	Joback Method
rinpol	1286.30		NIST Webbook
ripol	1811.00		NIST Webbook
ripol	1811.00		NIST Webbook
tb	508.92	K	Joback Method
tc	722.30	K	Joback Method
tf	267.64	K	Joback Method
vc	0.512	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	295.28	J/mol×K	508.92	Joback Method
cpg	361.39	J/mol×K	686.74	Joback Method
cpg	349.72	J/mol×K	651.17	Joback Method

cpg	337.29	J/mol×K	615.61	Joback Method
cpg	324.10	J/mol×K	580.05	Joback Method
cpg	310.10	J/mol×K	544.48	Joback Method
cpg	372.35	J/mol×K	722.30	Joback Method
dvisc	0.0002577	Pa×s	508.92	Joback Method
dvisc	0.0003352	Pa×s	468.71	Joback Method
dvisc	0.0004582	Pa×s	428.49	Joback Method
dvisc	0.0006681	Pa×s	388.28	Joback Method
dvisc	0.0010628	Pa×s	348.07	Joback Method
dvisc	0.0019089	Pa×s	307.85	Joback Method
dvisc	0.0040883	Pa×s	267.64	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C1197155&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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume