«gamma»-Terpinen-7-al

Other names: p-Mentha-1,4-dien-7-al
Inchi: InChI=1S/C10H14O/c1-8(2)10-5-3-9(7-11)4-6-10/h3,6-8H,4-5H2,1-2H3
InchiKey: NIBUJHLMVJZODW-UHFFFAOYSA-N
Formula: C10H14O
SMILES: CC(C)C1=CCC(C=O)=CC1
Mol. weight [g/mol]: 150.22
CAS: 22580-90-1

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	1274.00		NIST Webbook
rinpol	1278.00		NIST Webbook
rinpol	1297.60		NIST Webbook
rinpol	1276.00		NIST Webbook
rinpol	1272.00		NIST Webbook
rinpol	1276.00		NIST Webbook
rinpol	1272.00		NIST Webbook
rinpol	1267.00		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=C22580901&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