3-hydroxy-(E)-4-decen-2-one

Inchi: InChI=1S/C10H18O2/c1-3-4-5-6-7-8-10(12)9(2)11/h7-8,10,12H,3-6H2,1-2H3/b8-7+
InchiKey: PJYMJVUKLUTXTR-BQYQJAHWSA-N
Formula: C10H18O2
SMILES: CCCCCC=CC(O)C(C)=O
Mol. weight [g/mol]: 170.25

Physical Properties

Property code	Value	Unit	Source
gf	-154.64	kJ/mol	Joback Method
hf	-402.60	kJ/mol	Joback Method
hfus	24.02	kJ/mol	Joback Method
hvap	60.85	kJ/mol	Joback Method
log10ws	-2.52		Crippen Method
logp	2.073		Crippen Method
mcvol	154.900	ml/mol	McGowan Method
pc	2595.13	kPa	Joback Method
ripol	1946.00		NIST Webbook
tb	577.97	K	Joback Method
tc	754.09	K	Joback Method
tf	293.13	K	Joback Method
vc	0.595	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	383.58	J/mol×K	577.97	Joback Method
cpg	439.09	J/mol×K	724.73	Joback Method
cpg	429.05	J/mol×K	695.38	Joback Method
cpg	418.50	J/mol×K	666.03	Joback Method
cpg	407.43	J/mol×K	636.68	Joback Method
cpg	395.79	J/mol×K	607.32	Joback Method
cpg	448.64	J/mol×K	754.09	Joback Method
dvisc	0.0000818	Pa×s	577.97	Joback Method
dvisc	0.0001350	Pa×s	530.50	Joback Method

dvisc	0.0002456	Pa×s	483.02	Joback Method
dvisc	0.0005093	Pa×s	435.55	Joback Method
dvisc	0.0012624	Pa×s	388.08	Joback Method
dvisc	0.0040298	Pa×s	340.60	Joback Method
dvisc	0.0187361	Pa×s	293.13	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=R241099&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
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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume