5-Decanone, 6-hydroxy-

Other names: 4-hydroxydecan-5-one
Inchi: InChI=1S/C10H20O2/c1-3-5-7-9(11)10(12)8-6-4-2/h9,11H,3-8H2,1-2H3
InchiKey: ORLDHCIQVZTBQQ-UHFFFAOYSA-N
Formula: C10H20O2
SMILES: CCCCC(=O)C(O)CCCC
Mol. weight [g/mol]: 172.26
CAS: 6540-98-3

Physical Properties

Property code	Value	Unit	Source
gf	-234.86	kJ/mol	Joback Method
hf	-519.82	kJ/mol	Joback Method
hfus	23.82	kJ/mol	Joback Method
hvap	60.89	kJ/mol	Joback Method
log10ws	-2.66		Crippen Method
logp	2.297		Crippen Method
mcvol	159.200	ml/mol	McGowan Method
pc	2462.92	kPa	Joback Method
tb	573.81	K	Joback Method
tc	743.57	K	Joback Method
tf	298.21	K	Joback Method
vc	0.615	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	403.15	J/mol×K	573.81	Joback Method
cpg	415.84	J/mol×K	602.10	Joback Method
cpg	427.99	J/mol×K	630.40	Joback Method
cpg	439.61	J/mol×K	658.69	Joback Method
cpg	450.71	J/mol×K	686.99	Joback Method
cpg	461.31	J/mol×K	715.28	Joback Method
cpg	471.43	J/mol×K	743.57	Joback Method
dvisc	0.0185428	Pa×s	298.21	Joback Method

dvisc	0.0043186	Pa×s	344.14	Joback Method
dvisc	0.0014176	Pa×s	390.08	Joback Method
dvisc	0.0005884	Pa×s	436.01	Joback Method
dvisc	0.0002888	Pa×s	481.94	Joback Method
dvisc	0.0001605	Pa×s	527.88	Joback Method
dvisc	0.0000979	Pa×s	573.81	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=C6540983&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume