

9-Decen-2-one

Inchi:	InChI=1S/C10H18O/c1-3-4-5-6-7-8-9-10(2)11/h3H,1,4-9H2,2H3
InchiKey:	DZECLZDTSQJBSU-UHFFFAOYSA-N
Formula:	C10H18O
SMILES:	C=CCCCCCCC(C)=O
Mol. weight [g/mol]:	154.25
CAS:	35194-30-0

Physical Properties

Property code	Value	Unit	Source
gf	-7.76	kJ/mol	Joback Method
hf	-236.88	kJ/mol	Joback Method
hfus	21.98	kJ/mol	Joback Method
hvap	43.93	kJ/mol	Joback Method
log10ws	-3.14		Crippen Method
logp	3.102		Crippen Method
mcvol	149.030	ml/mol	McGowan Method
pc	2327.03	kPa	Joback Method
tb	478.75	K	Joback Method
tc	654.86	K	Joback Method
tf	250.63	K	Joback Method
vc	0.583	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	324.38	J/mol×K	478.75	Joback Method
cpg	338.27	J/mol×K	508.10	Joback Method
cpg	351.56	J/mol×K	537.45	Joback Method
cpg	364.27	J/mol×K	566.80	Joback Method
cpg	376.41	J/mol×K	596.16	Joback Method
cpg	388.01	J/mol×K	625.51	Joback Method
cpg	399.09	J/mol×K	654.86	Joback Method
dvisc	0.0041298	Paxs	250.63	Joback Method
dvisc	0.0019446	Paxs	288.65	Joback Method

dvisc	0.0010912	Paxs	326.67	Joback Method
dvisc	0.0006907	Paxs	364.69	Joback Method
dvisc	0.0004766	Paxs	402.71	Joback Method
dvisc	0.0003506	Paxs	440.73	Joback Method
dvisc	0.0002708	Paxs	478.75	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C35194300&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071

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
mccvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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