

Methyl 2-hydroxydecanoate

Inchi:	InChI=1S/C11H22O3/c1-3-4-5-6-7-8-9-10(12)11(13)14-2/h10,12H,3-9H2,1-2H3
InchiKey:	HHHKXSXAGVRUSM-UHFFFAOYSA-N
Formula:	C11H22O3
SMILES:	CCCCCCCCC(O)C(=O)OC
Mol. weight [g/mol]:	202.29
CAS:	71271-24-4

Physical Properties

Property code	Value	Unit	Source
gf	-331.44	kJ/mol	Joback Method
hf	-672.68	kJ/mol	Joback Method
hfus	27.60	kJ/mol	Joback Method
hvap	65.53	kJ/mol	Joback Method
log10ws	-2.66		Crippen Method
logp	2.271		Crippen Method
mcvol	179.160	ml/mol	McGowan Method
pc	2208.29	kPa	Joback Method
tb	619.11	K	Joback Method
tc	788.09	K	Joback Method
tf	331.71	K	Joback Method
vc	0.689	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	479.00	J/molxK	619.11	Joback Method
cpg	492.23	J/molxK	647.27	Joback Method
cpg	504.91	J/molxK	675.44	Joback Method
cpg	517.04	J/molxK	703.60	Joback Method
cpg	528.63	J/molxK	731.76	Joback Method
cpg	539.68	J/molxK	759.93	Joback Method
cpg	550.21	J/molxK	788.09	Joback Method
dvisc	0.0077301	Paxs	331.71	Joback Method
dvisc	0.0020635	Paxs	379.61	Joback Method

dvisc	0.0007406	Paxs	427.51	Joback Method
dvisc	0.0003267	Paxs	475.41	Joback Method
dvisc	0.0001675	Paxs	523.31	Joback Method
dvisc	0.0000960	Paxs	571.21	Joback Method
dvisc	0.0000600	Paxs	619.11	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=C71271244&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.cheméo.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

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