

8-Methyldecanal

Inchi:	InChI=1S/C11H22O/c1-3-11(2)9-7-5-4-6-8-10-12/h10-11H,3-9H2,1-2H3
InchiKey:	VXUUJYSSICSSIX-UHFFFAOYSA-N
Formula:	C11H22O
SMILES:	CCC(C)CCCCCCC=O
Mol. weight [g/mol]:	170.29
CAS:	---

Physical Properties

Property code	Value	Unit	Source
gf	-60.22	kJ/mol	Joback Method
hf	-361.23	kJ/mol	Joback Method
hfus	23.01	kJ/mol	Joback Method
hvap	46.41	kJ/mol	Joback Method
log10ws	-3.47		Crippen Method
logp	3.572		Crippen Method
mcvol	167.420	ml/mol	McGowan Method
pc	2081.22	kPa	Joback Method
rinpol	1262.00		NIST Webbook
tb	499.30	K	Joback Method
tc	670.07	K	Joback Method
tf	240.73	K	Joback Method
vc	0.662	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	388.78	J/mol×K	499.30	Joback Method
cpg	404.03	J/mol×K	527.76	Joback Method
cpg	418.65	J/mol×K	556.22	Joback Method
cpg	432.66	J/mol×K	584.69	Joback Method
cpg	446.08	J/mol×K	613.15	Joback Method
cpg	458.93	J/mol×K	641.61	Joback Method
cpg	471.22	J/mol×K	670.07	Joback Method
dvisc	0.0076580	Pa×s	240.73	Joback Method

dvisc	0.0028329	Pa×s	283.83	Joback Method
dvisc	0.0013621	Pa×s	326.92	Joback Method
dvisc	0.0007767	Pa×s	370.01	Joback Method
dvisc	0.0004980	Pa×s	413.11	Joback Method
dvisc	0.0003473	Pa×s	456.21	Joback Method
dvisc	0.0002577	Pa×s	499.30	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.50314e+01
Coeff. B	-4.41695e+03
Coeff. C	-7.89410e+01
Temperature range (K), min.	378.52
Temperature range (K), max.	533.36

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=R589534&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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