

# 9-methyldecanal

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

## 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	1236.00		NIST Webbook
rinpol	1272.00		NIST Webbook
tb	499.30	K	Joback Method
tc	670.07	K	Joback Method
tf	240.73	K	Joback Method
vc	0.662	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

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

dvisc	0.0002577	Paxs	499.30	Joback Method
dvisc	0.0003473	Paxs	456.21	Joback Method
dvisc	0.0004980	Paxs	413.11	Joback Method
dvisc	0.0007767	Paxs	370.01	Joback Method
dvisc	0.0013621	Paxs	326.92	Joback Method
dvisc	0.0028329	Paxs	283.83	Joback Method
dvisc	0.0076580	Paxs	240.73	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

The Yaws Handbook of Vapor Pressure:  
Crippen Method:

<https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure>

Crippen Method:

<http://pubs.acs.org/doi/abs/10.1021/ci990307l>

Joback Method:

[https://www.chemeo.com/doc/models/crippen\\_log10ws](https://www.chemeo.com/doc/models/crippen_log10ws)

McGowan Method:

[https://en.wikipedia.org/wiki/Joback\\_method](https://en.wikipedia.org/wiki/Joback_method)

NIST Webbook:

<http://link.springer.com/article/10.1007/BF02311772>

<http://webbook.nist.gov/cgi/cbook.cgi?ID=R419633&Units=SI>

## Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>dvisc:</b>	Dynamic viscosity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions

<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>pvap:</b>	Vapor pressure
<b>rinpola:</b>	Non-polar retention indices
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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