

# Nonanal dimethyl acetal

<b>Other names:</b>	Nonane, 1,1-dimethoxy- n-Nonanal dimethyl acetal 1,1-dimethoxynonane
<b>Inchi:</b>	InChI=1S/C11H24O2/c1-4-5-6-7-8-9-10-11(12-2)13-3/h11H,4-10H2,1-3H3
<b>InchiKey:</b>	LYLVOCPDQAOQKL-UHFFFAOYSA-N
<b>Formula:</b>	C11H24O2
<b>SMILES:</b>	CCCCCCCCC(OC)OC
<b>Mol. weight [g/mol]:</b>	188.31
<b>CAS:</b>	18824-63-0

## Physical Properties

Property code	Value	Unit	Source
gf	-170.70	kJ/mol	Joback Method
hf	-540.09	kJ/mol	Joback Method
hfus	23.10	kJ/mol	Joback Method
hvap	44.51	kJ/mol	Joback Method
log10ws	-3.21		Crippen Method
logp	3.356		Crippen Method
mcvol	177.590	ml/mol	McGowan Method
pc	1890.36	kPa	Joback Method
rinpol	1267.00		NIST Webbook
rinpol	1267.00		NIST Webbook
ripol	1465.00		NIST Webbook
ripol	1465.00		NIST Webbook
tb	495.48	K	Joback Method
tc	660.38	K	Joback Method
tf	243.19	K	Joback Method
vc	0.681	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	416.01	J/molxK	495.48	Joback Method
cpg	431.77	J/molxK	522.96	Joback Method

cpg	447.02	J/molxK	550.45	Joback Method
cpg	461.75	J/molxK	577.93	Joback Method
cpg	475.97	J/molxK	605.41	Joback Method
cpg	489.68	J/molxK	632.90	Joback Method
cpg	502.88	J/molxK	660.38	Joback Method
dvisc	0.0044998	Paxs	243.19	Joback Method
dvisc	0.0016771	Paxs	285.24	Joback Method
dvisc	0.0008055	Paxs	327.29	Joback Method
dvisc	0.0004572	Paxs	369.34	Joback Method
dvisc	0.0002913	Paxs	411.38	Joback Method
dvisc	0.0002018	Paxs	453.43	Joback Method
dvisc	0.0001488	Paxs	495.48	Joback Method

## Sources

<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>
<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C18824630&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C18824630&amp;Units=SI</a>

## 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>rinpol:</b>	Non-polar retention indices
<b>ripol:</b>	Polar retention indices
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point

**vc:** Critical Volume

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