

2-Nonenal, (Z)-

Other names:	cis-2-Nonenal (2Z)-2-Nonenal 2-(Z)-Nonenal (Z)-2-Nonenal (Z)-Non-2-enal 2-Nonenal, (2Z)-
Inchi:	InChI=1S/C9H16O/c1-2-3-4-5-6-7-8-9-10/h7-9H,2-6H2,1H3/b8-7-
InchiKey:	BSAIUMLZVGUGKX-FPLPWBNLSA-N
Formula:	C9H16O
SMILES:	CCCCCCC=CC=O
Mol. weight [g/mol]:	140.22
CAS:	60784-31-8

Physical Properties

Property code	Value	Unit	Source
gf	5.60	kJ/mol	Joback Method
hf	-197.45	kJ/mol	Joback Method
hfus	21.56	kJ/mol	Joback Method
hvap	42.31	kJ/mol	Joback Method
log10ws	-2.72		Crippen Method
logp	2.712		Crippen Method
mcvol	134.940	ml/mol	McGowan Method
pc	2613.74	kPa	Joback Method
rinpol	1149.00		NIST Webbook
rinpol	1151.00		NIST Webbook
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ripol	1513.00		NIST Webbook
ripol	1490.00		NIST Webbook
ripol	1508.00		NIST Webbook
ripol	1510.00		NIST Webbook
tb	458.14	K	Joback Method
tc	635.79	K	Joback Method
tf	228.11	K	Joback Method

vc	0.536	m ³ /kmol	Joback Method
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Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	282.56	J/mol×K	458.14	Joback Method
cpg	341.26	J/mol×K	606.18	Joback Method
cpg	330.61	J/mol×K	576.57	Joback Method
cpg	319.44	J/mol×K	546.97	Joback Method
cpg	307.72	J/mol×K	517.36	Joback Method
cpg	295.43	J/mol×K	487.75	Joback Method
cpg	351.41	J/mol×K	635.79	Joback Method
dvisc	0.0002551	Pa×s	458.14	Joback Method
dvisc	0.0003323	Pa×s	419.80	Joback Method
dvisc	0.0004566	Pa×s	381.46	Joback Method
dvisc	0.0006735	Pa×s	343.12	Joback Method
dvisc	0.0010953	Pa×s	304.79	Joback Method
dvisc	0.0020491	Pa×s	266.45	Joback Method
dvisc	0.0047317	Pa×s	228.11	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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=C60784318&Units=SI

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

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