

2-Nonene

Inchi:	InChI=1S/C9H18/c1-3-5-7-9-8-6-4-2/h3,5H,4,6-9H2,1-2H3
InchiKey:	IICQZTQZQSBHBY-UHFFFAOYSA-N
Formula:	C9H18
SMILES:	CC=CCCCCCC
Mol. weight [g/mol]:	126.24
CAS:	2216-38-8

Physical Properties

Property code	Value	Unit	Source
gf	105.12	kJ/mol	Joback Method
hf	-111.87	kJ/mol	Joback Method
hfus	19.27	kJ/mol	Joback Method
hvap	35.59	kJ/mol	Joback Method
log10ws	-3.44		Crippen Method
logp	3.533		Crippen Method
mcvol	133.370	ml/mol	McGowan Method
pc	2426.65	kPa	Joback Method
rinpol	909.00		NIST Webbook
rinpol	902.00		NIST Webbook
tb	422.50 ± 1.50	K	NIST Webbook
tb	421.70 ± 2.00	K	NIST Webbook
tb	423.03 ± 0.40	K	NIST Webbook
tc	580.62	K	Joback Method
tf	181.00 ± 2.00	K	NIST Webbook
vc	0.519	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	258.08	J/mol×K	409.48	Joback Method
cpg	272.06	J/mol×K	438.00	Joback Method
cpg	285.46	J/mol×K	466.53	Joback Method
cpg	298.29	J/mol×K	495.05	Joback Method
cpg	310.57	J/mol×K	523.57	Joback Method

cpg	322.32	J/mol×K	552.09	Joback Method
cpg	333.56	J/mol×K	580.62	Joback Method
dvisc	0.0055889	Paxs	186.11	Joback Method
dvisc	0.0020238	Paxs	223.34	Joback Method
dvisc	0.0009797	Paxs	260.57	Joback Method
dvisc	0.0005686	Paxs	297.80	Joback Method
dvisc	0.0003724	Paxs	335.02	Joback Method
dvisc	0.0002654	Paxs	372.25	Joback Method
dvisc	0.0002012	Paxs	409.48	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.67432e+01
Coeff. B	-4.37630e+03
Coeff. C	-6.20940e+01
Temperature range (K), min.	328.04
Temperature range (K), max.	444.91

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2216388&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/ci9903071
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

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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