

cis-3-Nonene

Other names:	(Z)-3-C ₉ H ₁₈ 3-Nonene, (Z)- (3Z)-3-Nonene (Z)-3-Nonene (Z)-non-3-ene
Inchi:	InChI=1S/C ₉ H ₁₈ /c1-3-5-7-9-8-6-4-2/h5,7H,3-4,6,8-9H2,1-2H3/b7-5-
InchiKey:	YCBSHDKATAPNIA-ALCCZGGFSA-N
Formula:	C ₉ H ₁₈
SMILES:	CCC=CCCCC
Mol. weight [g/mol]:	126.24
CAS:	20237-46-1

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
ie	9.01 ± 0.01	eV	NIST Webbook
ie	8.84 ± 0.01	eV	NIST Webbook
log10ws	-3.44		Crippen Method
logp	3.533		Crippen Method
mcvol	133.370	ml/mol	McGowan Method
pc	2426.65	kPa	Joback Method
rinpol	887.00		NIST Webbook
rinpol	893.10		NIST Webbook
rinpol	894.40		NIST Webbook
rinpol	887.50		NIST Webbook
rinpol	888.00		NIST Webbook
rinpol	888.10		NIST Webbook
rinpol	888.00		NIST Webbook
rinpol	915.00		NIST Webbook
rinpol	888.00		NIST Webbook
rinpol	897.00		NIST Webbook
rinpol	897.00		NIST Webbook
rinpol	894.00		NIST Webbook
rinpol	888.00		NIST Webbook

rinpol	897.00		NIST Webbook
rinpol	870.00		NIST Webbook
rinpol	898.00		NIST Webbook
rinpol	898.00		NIST Webbook
rinpol	897.00		NIST Webbook
rinpol	896.00		NIST Webbook
rinpol	888.00		NIST Webbook
rinpol	897.00		NIST Webbook
rinpol	887.00		NIST Webbook
rinpol	870.00		NIST Webbook
ripol	955.00		NIST Webbook
ripol	955.00		NIST Webbook
ripol	951.00		NIST Webbook
ripol	954.80		NIST Webbook
ripol	952.20		NIST Webbook
ripol	955.30		NIST Webbook
ripol	952.20		NIST Webbook
ripol	954.80		NIST Webbook
ripol	955.80		NIST Webbook
ripol	956.00		NIST Webbook
ripol	952.00		NIST Webbook
ripol	948.00		NIST Webbook
tb	409.48	K	Joback Method
tc	580.62	K	Joback Method
tf	186.11	K	Joback Method
vc	0.519	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	258.08	J/molxK	409.48	Joback Method
cpg	272.06	J/molxK	438.00	Joback Method
cpg	285.46	J/molxK	466.53	Joback Method
cpg	298.29	J/molxK	495.05	Joback Method
cpg	310.57	J/molxK	523.57	Joback Method
cpg	322.32	J/molxK	552.09	Joback Method
cpg	333.56	J/molxK	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
hvapt	40.30	kJ/mol	399.00	NIST Webbook

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=C20237461&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071

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
hvapt:	Enthalpy of vaporization at a given temperature
ie:	Ionization energy
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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