

# Decane, 3-methyl-

<b>Other names:</b>	2-Ethylnonane 3-Methyldecane
<b>Inchi:</b>	InChI=1S/C11H24/c1-4-6-7-8-9-10-11(3)5-2/h11H,4-10H2,1-3H3
<b>InchiKey:</b>	JJRUZTXRDDMYGM-UHFFFAOYSA-N
<b>Formula:</b>	C11H24
<b>SMILES:</b>	CCCCCCCC(C)CC
<b>Mol. weight [g/mol]:</b>	156.31
<b>CAS:</b>	13151-34-3

## Physical Properties

Property code	Value	Unit	Source
gf	39.30	kJ/mol	Joback Method
hf	-275.65	kJ/mol	Joback Method
hfus	20.72	kJ/mol	Joback Method
hvap	39.69	kJ/mol	Joback Method
log10ws	-4.19		Crippen Method
logp	4.393		Crippen Method
mvol	165.850	ml/mol	McGowan Method
pc	1947.51	kPa	Joback Method
rinpol	1072.00		NIST Webbook
rinpol	1074.00		NIST Webbook
rinpol	1073.00		NIST Webbook
rinpol	1070.00		NIST Webbook
rinpol	1069.00		NIST Webbook
rinpol	1070.00		NIST Webbook
rinpol	1072.40		NIST Webbook
rinpol	1063.90		NIST Webbook
rinpol	1070.00		NIST Webbook
rinpol	1072.00		NIST Webbook
rinpol	1071.41		NIST Webbook
rinpol	1071.58		NIST Webbook
rinpol	1071.88		NIST Webbook
rinpol	1070.96		NIST Webbook
rinpol	1071.00		NIST Webbook
rinpol	1071.49		NIST Webbook
rinpol	1071.00		NIST Webbook
rinpol	1069.00		NIST Webbook

rinpol	1071.00		NIST Webbook
rinpol	1070.00		NIST Webbook
rinpol	1073.00		NIST Webbook
rinpol	1072.10		NIST Webbook
rinpol	1070.00		NIST Webbook
rinpol	1073.00		NIST Webbook
rinpol	1071.20		NIST Webbook
rinpol	1073.00		NIST Webbook
rinpol	1072.00		NIST Webbook
rinpol	1070.00		NIST Webbook
rinpol	1071.31		NIST Webbook
rinpol	1073.00		NIST Webbook
ripol	1070.00		NIST Webbook
ripol	1048.00		NIST Webbook
tb	450.64	K	Joback Method
tc	615.77	K	Joback Method
tf	198.73	K	Joback Method
vc	0.645	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	449.44	J/molxK	615.77	Joback Method
cpg	360.10	J/molxK	450.64	Joback Method
cpg	376.48	J/molxK	478.16	Joback Method
cpg	392.24	J/molxK	505.68	Joback Method
cpg	407.41	J/molxK	533.20	Joback Method
cpg	421.98	J/molxK	560.73	Joback Method
cpg	435.99	J/molxK	588.25	Joback Method
dvisc	0.0002156	Paxs	450.64	Joback Method
dvisc	0.0105797	Paxs	198.73	Joback Method
dvisc	0.0031400	Paxs	240.72	Joback Method
dvisc	0.0013369	Paxs	282.70	Joback Method
dvisc	0.0007098	Paxs	324.69	Joback Method
dvisc	0.0004357	Paxs	366.67	Joback Method
dvisc	0.0002956	Paxs	408.65	Joback Method
hvapt	46.50	kJ/mol	402.00	NIST Webbook

# Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.50345e+01
Coeff. B	-4.46160e+03
Coeff. C	-3.48170e+01
Temperature range (K), min.	337.36
Temperature range (K), max.	493.69

## Sources

<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=C13151343&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C13151343&amp;Units=SI</a>
<b>The Yaws Handbook of Vapor Pressure:</b>	<a href="https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure">https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure</a>
<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>

## 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>hvapt:</b>	Enthalpy of vaporization at a given temperature
<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>rinpol:</b>	Non-polar retention indices
<b>ripol:</b>	Polar retention indices

**tb:** Normal Boiling Point Temperature  
**tc:** Critical Temperature  
**tf:** Normal melting (fusion) point  
**vc:** Critical Volume

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