

# Naphthalene, 1,2,3,4-tetrahydro-1,1,6-trimethyl-

Other names:	«alpha»-lonene lonene 1,1,6-Trimethyl-1,2,3,4-tetrahydronaphthalene 1,1,6-Trimethyltetralin 1,2,3,4-Tetrahydro-1,1,6-trimethyl-naphthalene Naphthalene, tetrahydro-1,1,6-trimethyl- ionene (1,1,6-trimethyl-1,2,3,4-tetrahydronaphthalene)
Inchi:	InChI=1S/C13H18/c1-10-6-7-12-11(9-10)5-4-8-13(12,2)3/h6-7,9H,4-5,8H2,1-3H3
InchiKey:	LTMQZVLXCLQPCT-UHFFFAOYSA-N
Formula:	C13H18
SMILES:	Cc1ccc2c(c1)CCCC2(C)C
Mol. weight [g/mol]:	174.28
CAS:	475-03-6

## Physical Properties

Property code	Value	Unit	Source
gf	194.89	kJ/mol	Joback Method
hf	-16.18	kJ/mol	Joback Method
hfus	12.43	kJ/mol	Joback Method
hvap	47.07	kJ/mol	Joback Method
log10ws	-3.96		Crippen Method
logp	3.609		Crippen Method
mvol	159.410	ml/mol	McGowan Method
pc	2589.85	kPa	Joback Method
rinpol	1255.00		NIST Webbook
rinpol	1258.00		NIST Webbook
rinpol	1258.00		NIST Webbook
rinpol	1264.00		NIST Webbook
rinpol	1256.00		NIST Webbook
rinpol	1255.90		NIST Webbook
rinpol	1266.00		NIST Webbook
rinpol	1255.00		NIST Webbook
ripol	1565.00		NIST Webbook
ripol	1565.00		NIST Webbook
ripol	1545.00		NIST Webbook
ripol	1567.00		NIST Webbook
tb	544.73	K	Joback Method

tc	775.72	K	Joback Method
tf	326.05	K	Joback Method
vc	0.603	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	380.21	J/mol×K	544.73	Joback Method
cpg	398.97	J/mol×K	583.23	Joback Method
cpg	416.43	J/mol×K	621.73	Joback Method
cpg	432.76	J/mol×K	660.23	Joback Method
cpg	448.14	J/mol×K	698.72	Joback Method
cpg	462.73	J/mol×K	737.22	Joback Method
cpg	476.69	J/mol×K	775.72	Joback Method

## Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	511.70	K	97.30	NIST Webbook

## 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=C475036&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C475036&amp;Units=SI</a>

## Legend

<b>cpg:</b>	Ideal gas heat capacity
<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>tbrp:</b>	Boiling point at reduced pressure
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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