

# 1H-3a,7-Methanoazulene, 2,3,6,7,8,8a-hexahydro-1,4,9,9-tetramethyl-, (1«alpha»,3a«alpha»,7«alpha»,8a«beta»)-

Other names: 1H-3a,7-Methanoazulene, 2,3,6,7,8,8a-hexahydro-1,4,9,9-tetramethyl-, (1R,3aS,7S,8aR)-1,4,9,9-tetramethyl-2,3,6,7,8,8a-hexahydro-1H-3a,7-methanoazulene  
«alpha»-Patchoulene

**Inchi:** 1H-3a,7-Methanoazulene, 2,3,6,7,8,8a-hexahydro-1,4,9,9-tetramethyl-, (1R,3aS,7S,8aR)-rel-  
InChI=1S/C15H24/c1-10-7-8-15-11(2)5-6-12(9-13(10)15)14(15,3)4/h5,10,12-13H,6-9H2,

**InchiKey:** KVQOADNSNSUAJT-UHFFFAOYSA-N

**Formula:** C15H24

**SMILES:** CC1=CCC2CC3C(C)CCC13C2(C)C

**Mol. weight [g/mol]:** 204.35

**CAS:** 560-32-7

## Physical Properties

Property code	Value	Unit	Source
gf	227.40	kJ/mol	Joback Method
hf	-110.74	kJ/mol	Joback Method
hfus	15.19	kJ/mol	Joback Method
hvap	47.10	kJ/mol	Joback Method
log10ws	-4.43		Crippen Method
logp	4.415		Crippen Method
mcvol	185.330	ml/mol	McGowan Method
pc	2117.78	kPa	Joback Method
rinpol	1456.00		NIST Webbook
rinpol	1457.00		NIST Webbook
rinpol	1456.00		NIST Webbook
rinpol	1464.00		NIST Webbook
rinpol	1450.00		NIST Webbook
rinpol	1456.00		NIST Webbook
rinpol	1450.00		NIST Webbook
rinpol	1445.00		NIST Webbook
rinpol	1461.00		NIST Webbook
rinpol	1486.00		NIST Webbook
rinpol	1462.00		NIST Webbook
rinpol	1462.00		NIST Webbook
rinpol	1452.00		NIST Webbook
rinpol	1443.00		NIST Webbook
rinpol	1486.00		NIST Webbook
rinpol	1457.00		NIST Webbook

rinpol	1463.00		NIST Webbook
rinpol	1464.00		NIST Webbook
rinpol	1456.00		NIST Webbook
rinpol	1445.00		NIST Webbook
rinpol	1464.00		NIST Webbook
rinpol	1444.00		NIST Webbook
rinpol	1457.00		NIST Webbook
rinpol	1460.00		NIST Webbook
ripol	1640.00		NIST Webbook
ripol	1640.00		NIST Webbook
ripol	1658.00		NIST Webbook
tb	566.64	K	Joback Method
tc	792.17	K	Joback Method
tf	358.19	K	Joback Method
vc	0.711	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	503.55	J/mol×K	566.64	Joback Method
cpg	526.55	J/mol×K	604.23	Joback Method
cpg	547.97	J/mol×K	641.82	Joback Method
cpg	568.10	J/mol×K	679.41	Joback Method
cpg	587.25	J/mol×K	716.99	Joback Method
cpg	605.70	J/mol×K	754.58	Joback Method
cpg	623.74	J/mol×K	792.17	Joback Method

## Sources

**Joback Method:**

[https://en.wikipedia.org/wiki/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=C560327&Units=SI>

**Crippen Method:**

<http://pubs.acs.org/doi/abs/10.1021/ci990307l>

**Crippen Method:**

[https://www.chemeo.com/doc/models/crippen\\_log10ws](https://www.chemeo.com/doc/models/crippen_log10ws)

# 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>rinpola:</b>	Non-polar retention indices
<b>ripola:</b>	Polar retention indices
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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