

Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-1,8a-dimethyl-7-(1-methylethenyl)- [1S-(1«alpha»,7«alpha»,8a«alpha»)]-

Other names:

Eremophila-1(10)-11-diene
Eremophilene

Inchi: Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-1,8a-dimethyl-7-(1-methylethenyl)-,
(1S,7R,8aR)
InchiKey: QEBNYNLSCGVZOH-GZBFAFLISA-N
Formula: C₁₅H₂₄
SMILES: C=C(C)C1CCC2=CCCC(C)C2(C)C1
Mol. weight [g/mol]: 204.35
CAS: 10219-75-7

Physical Properties

Property code	Value	Unit	Source
gf	234.94	kJ/mol	Joback Method
hf	-75.12	kJ/mol	Joback Method
h _{fus}	15.49	kJ/mol	Joback Method
h _{vap}	48.40	kJ/mol	Joback Method
log ₁₀ ws	-4.87		Crippen Method
logp	4.725		Crippen Method
m _{cvol}	191.890	ml/mol	McGowan Method
pc	2032.72	kPa	Joback Method
rinpol	1500.00		NIST Webbook
rinpol	1504.00		NIST Webbook
rinpol	1488.00		NIST Webbook
rinpol	1489.00		NIST Webbook
rinpol	1486.00		NIST Webbook
rinpol	1482.00		NIST Webbook
rinpol	1486.00		NIST Webbook
rinpol	1498.00		NIST Webbook
rinpol	1503.00		NIST Webbook
rinpol	1482.00		NIST Webbook
rinpol	1502.00		NIST Webbook
rinpol	1489.00		NIST Webbook
rinpol	1504.00		NIST Webbook
rinpol	1514.00		NIST Webbook
rinpol	1486.00		NIST Webbook
ripol	1710.00		NIST Webbook
ripol	1744.00		NIST Webbook

ripol	1743.00		NIST Webbook
ripol	1743.00		NIST Webbook
ripol	1743.00		NIST Webbook
ripol	1744.00		NIST Webbook
ripol	1732.00		NIST Webbook
ripol	1697.00		NIST Webbook
tb	569.43	K	Joback Method
tc	794.31	K	Joback Method
tf	297.83	K	Joback Method
vc	0.723	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	499.65	J/mol×K	569.43	Joback Method
cpg	523.17	J/mol×K	606.91	Joback Method
cpg	545.19	J/mol×K	644.39	Joback Method
cpg	565.88	J/mol×K	681.87	Joback Method
cpg	585.40	J/mol×K	719.35	Joback Method
cpg	603.90	J/mol×K	756.83	Joback Method
cpg	621.57	J/mol×K	794.31	Joback Method

Sources

McGowan Method:

<http://link.springer.com/article/10.1007/BF02311772>

NIST Webbook:

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C10219757&Units=SI>

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

Legend

cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions

h_{vap}:	Enthalpy of vaporization at standard conditions
log₁₀w_s:	Log ₁₀ of Water solubility in mol/l
log_p:	Octanol/Water partition coefficient
mc_{vol}:	McGowan's characteristic volume
p_c:	Critical Pressure
r_{inpol}:	Non-polar retention indices
r_{ipol}:	Polar retention indices
t_b:	Normal Boiling Point Temperature
t_c:	Critical Temperature
t_f:	Normal melting (fusion) point
v_c:	Critical Volume

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