1,4-Methanonaphthalene, 1,2,3,4-tetrahydro-

Other names: Benzonorbornene
Inchi: InChI=1S/C11H12/c1-2-4-11-9-6-5-8(7-9)10(11)3-1/h1-4,8-9H,5-7H2
InchiKey: ILMCRZOMKCLIFZ-UHFFFAOYSA-N
Formula: C11H12
SMILES: c1ccc2c(c1)C1CCC2C1
Mol. weight [g/mol]: 144.21
CAS: 4486-29-7

Physical Properties

Property code	Value	Unit	Source
gf	278.12	kJ/mol	Joback Method
hf	106.45	kJ/mol	Joback Method
hfus	16.27	kJ/mol	Joback Method
hvap	42.67	kJ/mol	Joback Method
ie	8.42 ± 0.05	eV	NIST Webbook
ie	8.45 ± 0.05	eV	NIST Webbook
log10ws	-3.21		Crippen Method
logp	3.051		Crippen Method
mcvol	120.370	ml/mol	McGowan Method
pc	3368.44	kPa	Joback Method
tb	491.95	K	Joback Method
tc	720.98	K	Joback Method
tf	292.07	K	Joback Method
vc	0.466	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	272.31	J/mol×K	491.95	Joback Method
cpg	289.37	J/mol×K	530.12	Joback Method
cpg	305.07	J/mol×K	568.29	Joback Method
cpg	319.50	J/mol×K	606.46	Joback Method
cpg	332.80	J/mol×K	644.64	Joback Method
cpg	345.07	J/mol×K	682.81	Joback Method

cpg	356.44	J/mol×K	720.98	Joback Method
dvisc	0.0010901	Pa×s	292.07	Joback Method
dvisc	0.0010588	Pa×s	325.38	Joback Method
dvisc	0.0010339	Pa×s	358.70	Joback Method
dvisc	0.0010137	Pa×s	392.01	Joback Method
dvisc	0.0009970	Pa×s	425.32	Joback Method
dvisc	0.0009829	Pa×s	458.64	Joback Method
dvisc	0.0009709	Pa×s	491.95	Joback Method

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=C4486297&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
ie: Ionization energy
log10ws: Log10 of Water solubility in mol/l
logp: Octanol/Water partition coefficient
mcvol: McGowan's characteristic volume
pc: Critical Pressure
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume

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