Anthracene, tetradecahydro-, (4a«alpha»,8a«alpha»,9a«beta»,10a«alpha»)-

Other names: Anthracene, 1,2,3,4,4a«alpha»,5,6,7,8,8a«beta»,9,9a«beta»,10,10a«alpha»-tetradecahydro-
Anthracene, 1,2,3,4,4aÂ«alphaÂ»,5,6,7,8,8aÂ«betaÂ»,9,9aÂ«betaÂ»,10,10aÂ«alphaÂ»-tetradecahyd
Anthracene, tetradecahydro-, (4a«alpha»,8a«beta»,9a«beta»,10a«alpha»)-
Anthracene, tetradecahydro-, (4aÂ«alphaÂ»,8aÂ«betaÂ»,9aÂ«betaÂ»,10aÂ«alphaÂ»)-
trans-cisoid-trans-Perhydroanthracene
trans-syn-trans-Perhydroanthracene

Inchi: InChI=1S/C14H24/c1-2-6-12-10-14-8-4-3-7-13(14)9-11(12)5-1/h11-14H,1-10H2/t11-,12-,

InchiKey: GVJFFQYXVOJXFI-SYQHCUMBSA-N

Formula: C14H24

SMILES: C1CCC2CC3CCCCC3CC2C1

Mol. weight [g/mol]: 192.34

CAS: 1755-19-7

Physical Properties

Property code	Value	Unit	Source
chs	-8608.50 ± 2.90	kJ/mol	NIST Webbook
gf	181.04	kJ/mol	Joback Method
hf	-165.03	kJ/mol	Joback Method
hfs	-330.60 ± 3.40	kJ/mol	NIST Webbook
hfus	16.99	kJ/mol	Joback Method
hsub	87.40 ± 2.40	kJ/mol	NIST Webbook
hvap	47.05	kJ/mol	Joback Method
ie	8.80	eV	NIST Webbook
log10ws	-4.40		Crippen Method
logp	4.393		Crippen Method
mcvol	175.540	ml/mol	McGowan Method
pc	2311.39	kPa	Joback Method
tb	556.62	K	Joback Method
tc	789.03	K	Joback Method
tf	279.52	K	Joback Method
vc	0.649	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	476.02	J/mol×K	556.62	Joback Method
cpg	503.38	J/mol×K	595.35	Joback Method
cpg	528.90	J/mol×K	634.09	Joback Method
cpg	552.65	J/mol×K	672.82	Joback Method
cpg	574.73	J/mol×K	711.56	Joback Method
cpg	595.25	J/mol×K	750.29	Joback Method
cpg	614.30	J/mol×K	789.03	Joback Method
dvisc	0.0021240	Pa×s	325.70	Joback Method
dvisc	0.0033535	Pa×s	279.52	Joback Method
dvisc	0.0015068	Pa×s	371.89	Joback Method
dvisc	0.0011532	Pa×s	418.07	Joback Method
dvisc	0.0009308	Pa×s	464.25	Joback Method
dvisc	0.0007810	Pa×s	510.44	Joback Method
dvisc	0.0006747	Pa×s	556.62	Joback Method
hsubt	88.10	kJ/mol	314.00	NIST Webbook
hsubt	87.40 ± 2.40	kJ/mol	364.00	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.36703e+01
Coeff. B	-3.99060e+03
Coeff. C	-9.56500e+01
Temperature range (K), min.	393.84
Temperature range (K), max.	573.06

Sources

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=C1755197&Units=SI

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

Legend

chs:	Standard solid enthalpy of combustion
cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfs:	Solid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hsub:	Enthalpy of sublimation at standard conditions
hsubt:	Enthalpy of sublimation at a given temperature
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
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume