4a(2H)-Naphthalenol, octahydro-, trans-

Other names: trans-9-Decalol
Octahydro-4a(2H)-naphthalenol, (E)-
Inchi: InChI=1S/C10H18O/c11-10-7-3-1-5-9(10)6-2-4-8-10/h9,11H,1-8H2
InchiKey: YMWMXZXXVIICRR-UHFFFAOYSA-N
Formula: C10H18O
SMILES: OC12CCCCC1CCCC2
Mol. weight [g/mol]: 154.25
CAS: 1654-87-1

Physical Properties

Property code	Value	Unit	Source
chs	-6063.00	kJ/mol	NIST Webbook
gf	-35.89	kJ/mol	Joback Method
hf	-265.76	kJ/mol	Joback Method
hfs	-445.00 ± 21.00	kJ/mol	NIST Webbook
hfus	7.32	kJ/mol	Joback Method
hvap	53.90	kJ/mol	Joback Method
log10ws	-2.93		Crippen Method
logp	2.482		Crippen Method
mcvol	135.910	ml/mol	McGowan Method
pc	3538.87	kPa	Joback Method
tb	551.18	K	Joback Method
tc	766.10	K	Joback Method
tf	308.98	K	Joback Method
vc	0.494	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	354.99	J/mol×K	551.18	Joback Method
cpg	372.94	J/mol×K	587.00	Joback Method
cpg	389.68	J/mol×K	622.82	Joback Method
cpg	405.36	J/mol×K	658.64	Joback Method
cpg	420.12	J/mol×K	694.46	Joback Method

cpg	434.09	J/mol×K	730.28	Joback Method
cpg	447.40	J/mol×K	766.10	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=C1654871&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

chs:	Standard solid enthalpy of combustion
cpg:	Ideal gas heat capacity
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
hvap:	Enthalpy of vaporization at standard conditions
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