Naphthalene, 1,2,3,4-tetrahydro-1-octyl-

Inchi: InChI=1S/C18H28/c1-2-3-4-5-6-7-11-16-13-10-14-17-12-8-9-15-18(16)17/h8-9,12,15-16h

InchiKey: LZSIUCCRELNUIP-UHFFFAOYSA-N

Formula: C18H28

SMILES: CCCCCCCCC1CCCc2ccccc21

Mol. weight [g/mol]: 244.41

CAS: 29138-91-8

Physical Properties

Property code	Value	Unit	Source
gf	252.11	kJ/mol	Joback Method
hf	-123.15	kJ/mol	Joback Method
hfus	32.06	kJ/mol	Joback Method
hvap	58.69	kJ/mol	Joback Method
log10ws	-6.28		Crippen Method
logp	5.857		Crippen Method
mcvol	229.860	ml/mol	McGowan Method
pc	1632.49	kPa	Joback Method
tb	653.91	K	Joback Method
tc	857.31	K	Joback Method
tf	345.98	K	Joback Method
vc	0.884	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	642.95	J/mol×K	653.91	Joback Method
cpg	663.92	J/mol×K	687.81	Joback Method
cpg	683.66	J/mol×K	721.71	Joback Method
cpg	702.25	J/mol×K	755.61	Joback Method
cpg	719.75	J/mol×K	789.51	Joback Method
cpg	736.23	J/mol×K	823.41	Joback Method
cpg	751.74	J/mol×K	857.31	Joback Method
dvisc	0.0023069	Pa×s	345.98	Joback Method
dvisc	0.0012297	Pa×s	397.30	Joback Method

dvisc	0.0007570	Pa×s	448.62	Joback Method
dvisc	0.0005148	Pa×s	499.95	Joback Method
dvisc	0.0003762	Pa×s	551.27	Joback Method
dvisc	0.0002899	Pa×s	602.59	Joback Method
dvisc	0.0002328	Pa×s	653.91	Joback Method

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=C29138918&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
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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