

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:	CCCCCCCC1CCCc2ccccc21
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/molxK	653.91	Joback Method
cpg	663.92	J/molxK	687.81	Joback Method
cpg	683.66	J/molxK	721.71	Joback Method
cpg	702.25	J/molxK	755.61	Joback Method
cpg	719.75	J/molxK	789.51	Joback Method
cpg	736.23	J/molxK	823.41	Joback Method
cpg	751.74	J/molxK	857.31	Joback Method
dvisc	0.0023069	Paxs	345.98	Joback Method
dvisc	0.0012297	Paxs	397.30	Joback Method

dvisc	0.0007570	Paxs	448.62	Joback Method
dvisc	0.0005148	Paxs	499.95	Joback Method
dvisc	0.0003762	Paxs	551.27	Joback Method
dvisc	0.0002899	Paxs	602.59	Joback Method
dvisc	0.0002328	Paxs	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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