2-NONYLNAPHTHALENE

Inchi: InChI=1S/C19H36/c1-2-3-4-5-6-7-8-11-17-14-15-18-12-9-10-13-19(18)16-17/h17-19H,2-
InchiKey: YIXLIPKWKPHBIX-OTWHNJEPSA-N
Formula: C19H36
SMILES: CCCCCCCCCC1CCC2CCCCC2C1
Mol. weight [g/mol]: 254.41
CAS: 27193-93-7

Physical Properties

Property code	Value	Unit	Source
af	0.6027		Cheméo Relay (1.0)
gf	174.49	kJ/mol	Joback Method
hf	-337.65	kJ/mol	Cheméo Relay (1.0)
hfus	33.91	kJ/mol	Joback Method
hvap	88.48	kJ/mol	Cheméo Relay (1.0)
ie	9.43	eV	Cheméo Relay (1.0)
log10ws	-8.01		Cheméo Relay (1.0)
logp	6.734		Crippen Method
mcvol	256.850	ml/mol	McGowan Method
pc	1356.63	kPa	Joback Method
tb	613.56	K	Cheméo Relay (1.0)
tc	809.19	K	Cheméo Relay (1.0)
tf	285.11	K	Cheméo Relay (1.0)
vc	0.955	m3/kmol	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	770.43	J/mol×K	660.01	Joback Method
cpg	795.54	J/mol×K	692.41	Joback Method
cpg	819.27	J/mol×K	724.82	Joback Method
cpg	841.68	J/mol×K	757.22	Joback Method
cpg	862.81	J/mol×K	789.63	Joback Method
cpg	882.72	J/mol×K	822.03	Joback Method
cpg	901.47	J/mol×K	854.43	Joback Method

dvisc	0.0038419	Pa×s	321.45	Joback Method
dvisc	0.0017656	Pa×s	377.88	Joback Method
dvisc	0.0009931	Pa×s	434.30	Joback Method
dvisc	0.0006376	Pa×s	490.73	Joback Method
dvisc	0.0004486	Pa×s	547.16	Joback Method
dvisc	0.0003370	Pa×s	603.58	Joback Method
dvisc	0.0002659	Pa×s	660.01	Joback Method

Sources

Cheméo Relay (1.0, beta):

KDB: https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=813

Joback Method: https://en.wikipedia.org/wiki/Joback_method

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

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

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

Cheméo Relay (1.0):

Legend

af: Acentric Factor
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