5-ethyl-1-nonene

Inchi: InChI=1S/C11H22/c1-4-7-9-11(6-3)10-8-5-2/h4,11H,1,5-10H2,2-3H3
InchiKey: FERQWJMFSVKKGT-UHFFFAOYSA-N
Formula: C11H22
SMILES: C=CCCC(CC)CCCC
Mol. weight [g/mol]: 154.30
CAS: ---

Physical Properties

Property code	Value	Unit	Source
af	0.4208		Cheméo Relay (1.0)
gf	127.14	kJ/mol	Joback Method
hf	-160.28	kJ/mol	Cheméo Relay (1.0)
hfus	19.44	kJ/mol	Joback Method
hvap	50.01	kJ/mol	Cheméo Relay (1.0)
ie	9.32	eV	Cheméo Relay (1.0)
log10ws	-5.50		Cheméo Relay (1.0)
logp	4.169		Crippen Method
mcvol	161.550	ml/mol	McGowan Method
pc	2021.76	kPa	Joback Method
tb	455.72	K	Cheméo Relay (1.0)
tc	618.41	K	Cheméo Relay (1.0)
tf	174.22	K	Cheméo Relay (1.0)
vc	0.568	m3/kmol	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	343.11	J/mol×K	447.32	Joback Method
cpg	359.03	J/mol×K	475.37	Joback Method
cpg	374.31	J/mol×K	503.42	Joback Method
cpg	388.98	J/mol×K	531.47	Joback Method
cpg	403.04	J/mol×K	559.51	Joback Method
cpg	416.52	J/mol×K	587.56	Joback Method
cpg	429.43	J/mol×K	615.61	Joback Method

dvisc	0.0091557	Pa×s	196.97	Joback Method
dvisc	0.0028404	Pa×s	238.70	Joback Method
dvisc	0.0012483	Pa×s	280.42	Joback Method
dvisc	0.0006788	Pa×s	322.14	Joback Method
dvisc	0.0004245	Pa×s	363.87	Joback Method
dvisc	0.0002924	Pa×s	405.60	Joback Method
dvisc	0.0002159	Pa×s	447.32	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.57336e+01
Coeff. B	-4.34242e+03
Coeff. C	-7.01840e+01
Temperature range (K), min.	351.32
Temperature range (K), max.	486.84

Sources

Cheméo Relay (1.0, beta):

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

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
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume