3-Undecene

Inchi: InChI=1S/C11H22/c1-3-5-7-9-11-10-8-6-4-2/h5,7H,3-4,6,8-11H2,1-2H3
InchiKey: SDTYFWAQLSIEBH-UHFFFAOYSA-N
Formula: C11H22
SMILES: CCC=CCCCCCCC
Mol. weight [g/mol]: 154.29
CAS: 60669-40-1

Physical Properties

Property code	Value	Unit	Source
gf	121.96	kJ/mol	Joback Method
hf	-153.15	kJ/mol	Joback Method
hfus	24.45	kJ/mol	Joback Method
hvap	40.04	kJ/mol	Joback Method
log10ws	-4.28		Crippen Method
logp	4.313		Crippen Method
mcvol	161.550	ml/mol	McGowan Method
pc	2025.41	kPa	Joback Method
rinpol	1005.00		NIST Webbook
rinpol	1005.00		NIST Webbook
tb	455.24	K	Joback Method
tc	624.41	K	Joback Method
tf	208.65	K	Joback Method
vc	0.631	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	344.60	J/mol×K	455.24	Joback Method
cpg	360.43	J/mol×K	483.44	Joback Method
cpg	375.59	J/mol×K	511.63	Joback Method
cpg	390.12	J/mol×K	539.83	Joback Method
cpg	404.02	J/mol×K	568.02	Joback Method
cpg	417.34	J/mol×K	596.22	Joback Method
cpg	430.08	J/mol×K	624.41	Joback Method

dvisc	0.0058574	Pa×s	208.65	Joback Method
dvisc	0.0020642	Pa×s	249.75	Joback Method
dvisc	0.0009768	Pa×s	290.85	Joback Method
dvisc	0.0005563	Pa×s	331.95	Joback Method
dvisc	0.0003587	Pa×s	373.04	Joback Method
dvisc	0.0002523	Pa×s	414.14	Joback Method
dvisc	0.0001891	Pa×s	455.24	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.56360e+01
Coeff. B	-4.29666e+03
Coeff. C	-7.08790e+01
Temperature range (K), min.	350.82
Temperature range (K), max.	487.04

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=C60669401&Units=SI

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

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

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
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume