

2-Undecene, (E)-

Other names:	(E)- and (Z)-2-Undecene (E)-2-Undecene trans-2-Undecene
Inchi:	InChI=1S/C11H22/c1-3-5-7-9-11-10-8-6-4-2/h3,5H,4,6-11H2,1-2H3/b5-3+
InchiKey:	JOHIXGUTSXXADV-HWKANZROSA-N
Formula:	C11H22
SMILES:	CC=CCCCCCCC
Mol. weight [g/mol]:	154.29
CAS:	693-61-8

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	1102.00		NIST Webbook
rinpol	1097.00		NIST Webbook
rinpol	1097.00		NIST Webbook
rinpol	1097.00		NIST Webbook
rinpol	1096.00		NIST Webbook
rinpol	1102.90		NIST Webbook
rinpol	1101.00		NIST Webbook
rinpol	1104.00		NIST Webbook
rinpol	1099.00		NIST Webbook
rinpol	1102.00		NIST Webbook
rinpol	1097.00		NIST Webbook
rinpol	1102.00		NIST Webbook
rinpol	1097.00		NIST Webbook
ripol	1163.00		NIST Webbook
ripol	1165.00		NIST Webbook
ripol	1166.00		NIST Webbook
ripol	1161.00		NIST Webbook

ripol	1161.00		NIST Webbook
ripol	1161.00		NIST Webbook
ripol	1161.00		NIST Webbook
ripol	1161.00		NIST Webbook
ripol	1160.00		NIST Webbook
ripol	1163.80		NIST Webbook
ripol	1166.50		NIST Webbook
ripol	1161.10		NIST Webbook
ripol	1163.80		NIST Webbook
ripol	1166.50		NIST Webbook
ripol	1161.10		NIST Webbook
ripol	1164.00		NIST Webbook
ripol	1173.00		NIST Webbook
tb	455.24	K	Joback Method
tc	624.41	K	Joback Method
tf	208.65	K	Joback Method
vc	0.631	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	430.08	J/molxK	624.41	Joback Method
cpg	417.34	J/molxK	596.22	Joback Method
cpg	404.02	J/molxK	568.02	Joback Method
cpg	390.12	J/molxK	539.83	Joback Method
cpg	375.59	J/molxK	511.63	Joback Method
cpg	360.43	J/molxK	483.44	Joback Method
cpg	344.60	J/molxK	455.24	Joback Method
dvisc	0.0058574	Paxs	208.65	Joback Method
dvisc	0.0001891	Paxs	455.24	Joback Method
dvisc	0.0002523	Paxs	414.14	Joback Method
dvisc	0.0003587	Paxs	373.04	Joback Method
dvisc	0.0005563	Paxs	331.95	Joback Method
dvisc	0.0009768	Paxs	290.85	Joback Method
dvisc	0.0020642	Paxs	249.75	Joback Method
hvapt	53.00	kJ/mol	363.00	NIST Webbook

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	348.20	K	1.30	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.45880e+01
Coeff. B	-3.71922e+03
Coeff. C	-8.78050e+01
Temperature range (K), min.	347.88
Temperature range (K), max.	488.73

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=C693618&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/ci9903071

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

hvapt:	Enthalpy of vaporization at a given temperature
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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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