

1-Undecene, 10-methyl-

Other names:	10-Methyl-1-undecene
Inchi:	InChI=1S/C12H24/c1-4-5-6-7-8-9-10-11-12(2)3/h4,12H,1,5-11H2,2-3H3
InchiKey:	AQLBDEAOQUJAIE-UHFFFAOYSA-N
Formula:	C12H24
SMILES:	C=CCCCCCCCC(C)C
Mol. weight [g/mol]:	168.32
CAS:	22370-55-4

Physical Properties

Property code	Value	Unit	Source
gf	135.56	kJ/mol	Joback Method
hf	-170.86	kJ/mol	Joback Method
hfus	22.03	kJ/mol	Joback Method
hvap	41.25	kJ/mol	Joback Method
log10ws	-4.46		Crippen Method
logp	4.559		Crippen Method
mcvol	175.640	ml/mol	McGowan Method
pc	1857.91	kPa	Joback Method
rinpol	1154.00		NIST Webbook
rinpol	1154.00		NIST Webbook
rinpol	1157.00		NIST Webbook
tb	470.20	K	Joback Method
tc	637.46	K	Joback Method
tf	208.24	K	Joback Method
vc	0.682	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	389.11	J/molxK	470.20	Joback Method
cpg	405.84	J/molxK	498.08	Joback Method
cpg	421.88	J/molxK	525.95	Joback Method
cpg	437.28	J/molxK	553.83	Joback Method
cpg	452.04	J/molxK	581.70	Joback Method

cpg	466.18	J/molxK	609.58	Joback Method
cpg	479.73	J/molxK	637.46	Joback Method
dvisc	0.0089547	Paxs	208.24	Joback Method
dvisc	0.0027624	Paxs	251.90	Joback Method
dvisc	0.0012062	Paxs	295.56	Joback Method
dvisc	0.0006519	Paxs	339.22	Joback Method
dvisc	0.0004054	Paxs	382.88	Joback Method
dvisc	0.0002779	Paxs	426.54	Joback Method
dvisc	0.0002043	Paxs	470.20	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.58798e+01
Coeff. B	-4.55444e+03
Coeff. C	-7.60220e+01
Temperature range (K), min.	368.12
Temperature range (K), max.	506.98

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C22370554&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
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

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

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