2-Dodecene, (z)-

Other names: (2Z)-2-Dodecene
(Z)-2-Dodecene
cis-2-Dodecene
Inchi: InChI=1S/C12H24/c1-3-5-7-9-11-12-10-8-6-4-2/h3,5H,4,6-12H2,1-2H3/b5-3+
InchiKey: ADOQBZAVKYCFOI-HYXAFXHYSA-N
Formula: C12H24
SMILES: C/C=C\CCCCCCCCC
Mol. weight [g/mol]: 168.32
CAS: 7206-26-0

Physical Properties

Property code	Value	Unit	Source
af	0.5256		Cheméo Relay (1.0)
gf	130.38	kJ/mol	Joback Method
hf	-188.48	kJ/mol	Cheméo Relay (1.0)
hfus	27.04	kJ/mol	Joback Method
hvap	59.20	kJ/mol	Cheméo Relay (1.0)
ie	8.89	eV	Cheméo Relay (1.0)
log10ws	-5.91		Cheméo Relay (1.0)
logp	4.703		Crippen Method
mcvol	175.640	ml/mol	McGowan Method
pc	1861.11	kPa	Joback Method
rinpol	1201.70		NIST Webbook
rinpol	1212.00		NIST Webbook
rinpol	1202.00		NIST Webbook
rinpol	1210.50		NIST Webbook
rinpol	1202.00		NIST Webbook
rinpol	1202.30		NIST Webbook
rinpol	1202.80		NIST Webbook
rinpol	1201.10		NIST Webbook
rinpol	1213.00		NIST Webbook
rinpol	1203.00		NIST Webbook
rinpol	1202.00		NIST Webbook
rinpol	1202.00		NIST Webbook
rinpol	1202.30		NIST Webbook
rinpol	1202.00		NIST Webbook
rinpol	1222.00		NIST Webbook

rinpol	1211.00		NIST Webbook
rinpol	1211.00		NIST Webbook
rinpol	1202.00		NIST Webbook
ripol	1281.00		NIST Webbook
ripol	1281.50		NIST Webbook
ripol	1285.00		NIST Webbook
ripol	1274.00		NIST Webbook
ripol	1275.00		NIST Webbook
ripol	1275.00		NIST Webbook
ripol	1276.00		NIST Webbook
ripol	1278.00		NIST Webbook
ripol	1272.00		NIST Webbook
ripol	1279.00		NIST Webbook
ripol	1281.00		NIST Webbook
ripol	1283.00		NIST Webbook
ripol	1285.00		NIST Webbook
ripol	1281.50		NIST Webbook
ripol	1283.30		NIST Webbook
ripol	1283.00		NIST Webbook
ripol	1283.30		NIST Webbook
ripol	1262.30		NIST Webbook
ripol	1281.00		NIST Webbook
ripol	1275.00		NIST Webbook
ripol	1281.50		NIST Webbook
ripol	1262.30		NIST Webbook
ripol	1280.00		NIST Webbook
ripol	1265.70		NIST Webbook
ripol	1267.20		NIST Webbook
ripol	1279.00		NIST Webbook
tb	479.82	K	Cheméo Relay (1.0)
tc	653.01	K	Cheméo Relay (1.0)
tf	230.60	K	Cheméo Relay (1.0)
vc	0.675	m3/kmol	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	390.87	J/mol×K	478.12	Joback Method
cpg	407.46	J/mol×K	506.13	Joback Method
cpg	423.37	J/mol×K	534.14	Joback Method
cpg	438.60	J/mol×K	562.15	Joback Method

cpg	453.18	J/mol×K	590.16	Joback Method
cpg	467.15	J/mol×K	618.17	Joback Method
cpg	480.52	J/mol×K	646.19	Joback Method
dvisc	0.0058071	Pa×s	219.92	Joback Method
dvisc	0.0020237	Pa×s	262.95	Joback Method
dvisc	0.0009486	Pa×s	305.99	Joback Method
dvisc	0.0005360	Pa×s	349.02	Joback Method
dvisc	0.0003433	Pa×s	392.05	Joback Method
dvisc	0.0002402	Pa×s	435.09	Joback Method
dvisc	0.0001792	Pa×s	478.12	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.48610e+01
Coeff. B	-3.97388e+03
Coeff. C	-9.24780e+01
Temperature range (K), min.	365.16
Temperature range (K), max.	508.61

Sources

Cheméo Relay (1.0, beta):

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

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C7206260&Units=SI

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