1,11-Dodecadiene

Other names: Dodecadiene, 1,11-
Inchi: InChI=1S/C12H22/c1-3-5-7-9-11-12-10-8-6-4-2/h3-4H,1-2,5-12H2
InchiKey: IYPLTVKTLDQUGG-UHFFFAOYSA-N
Formula: C12H22
SMILES: C=CCCCCCCCCC=C
Mol. weight [g/mol]: 166.30
CAS: 5876-87-9

Physical Properties

Property code	Value	Unit	Source
gf	225.84	kJ/mol	Joback Method
hf	-40.15	kJ/mol	Joback Method
hfus	24.28	kJ/mol	Joback Method
hvap	40.97	kJ/mol	Joback Method
log10ws	-4.55		Crippen Method
logp	4.479		Crippen Method
mcvol	171.340	ml/mol	McGowan Method
pc	1913.58	kPa	Joback Method
rinpol	1179.00		NIST Webbook
rinpol	1169.00		NIST Webbook
rinpol	1169.00		NIST Webbook
ripol	1342.00		NIST Webbook
tb	467.32	K	Joback Method
tc	634.28	K	Joback Method
tf	221.48	K	Joback Method
vc	0.669	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	371.44	J/mol×K	467.32	Joback Method
cpg	387.30	J/mol×K	495.15	Joback Method
cpg	402.50	J/mol×K	522.97	Joback Method
cpg	417.06	J/mol×K	550.80	Joback Method

cpg	430.99	J/mol×K	578.63	Joback Method
cpg	444.33	J/mol×K	606.45	Joback Method
cpg	457.10	J/mol×K	634.28	Joback Method
dvisc	0.0048575	Pa×s	221.48	Joback Method
dvisc	0.0019292	Pa×s	262.45	Joback Method
dvisc	0.0009832	Pa×s	303.43	Joback Method
dvisc	0.0005883	Pa×s	344.40	Joback Method
dvisc	0.0003926	Pa×s	385.37	Joback Method
dvisc	0.0002832	Pa×s	426.35	Joback Method
dvisc	0.0002163	Pa×s	467.32	Joback Method

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=C5876879&Units=SI
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
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