Dodecane, 3,7-dimethyl

Other names:	3,7-dimethyldodecane
	3,7-DimethyIdodecane
Inchi:	InChI=1S/C15H32/c1-5-7-8-9-11-15(4)13-10-12-14(3)6-2/h14-15H,5-13H2,1-4H3
InchiKey:	ZBHVQKRXXVWSMS-UHFFFAOYSA-N
Formula:	C15H32
SMILES:	CCCCCCC(C)CCCC(C)CC
Mol. weight [g/mol]:	212.41

Physical Properties

Property code	Value	Unit	Source
gf	70.54	kJ/mol	Joback Method
hf	-363.49	kJ/mol	Joback Method
hfus	27.56	kJ/mol	Joback Method
hvap	48.21	kJ/mol	Joback Method
log10ws	-5.62		Crippen Method
logp	5.809		Crippen Method
mcvol	222.210	ml/mol	McGowan Method
pc	1432.63	kPa	Joback Method
rinpol	1320.00		NIST Webbook
rinpol	1327.00		NIST Webbook
rinpol	1320.00		NIST Webbook
rinpol	1320.00		NIST Webbook
rinpol	1310.00		NIST Webbook
rinpol	1310.00		NIST Webbook
rinpol	1321.00		NIST Webbook
rinpol	1321.00		NIST Webbook
rinpol	1327.00		NIST Webbook
ripol	1340.00		NIST Webbook
ripol	1340.00		NIST Webbook
tb	541.72	K	Joback Method
tc	706.30	K	Joback Method
tf	228.81	K	Joback Method
vc	0.864	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	558.41	J/mol×K	541.72	Joback Method
cpg	577.82	J/mol×K	569.15	Joback Method
cpg	596.45	J/mol×K	596.58	Joback Method
cpg	614.33	J/mol×K	624.01	Joback Method
cpg	631.47	J/mol×K	651.44	Joback Method
cpg	647.90	J/mol×K	678.87	Joback Method
cpg	663.64	J/mol×K	706.30	Joback Method
dvisc	0.0138942	Pa×s	228.81	Joback Method
dvisc	0.0032300	Pa×s	280.96	Joback Method
dvisc	0.0011857	Pa×s	333.11	Joback Method
dvisc	0.0005709	Pa×s	385.26	Joback Method
dvisc	0.0003272	Pa×s	437.42	Joback Method
dvisc	0.0002112	Pa×s	489.57	Joback Method
dvisc	0.0001483	Pa×s	541.72	Joback Method

Sources

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
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=R47330&Units=SI

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