

1,4-Dimethyladamantane, stereoisomer

Other names:	1,4-dimethyladamantane, trans
Inchi:	InChI=1S/C12H20/c1-8-10-3-9-4-11(8)7-12(2,5-9)6-10/h8-11H,3-7H2,1-2H3
InchiKey:	MUQFEEYWQQZABK-UHFFFAOYSA-N
Formula:	C12H20
SMILES:	CC1C2CC3CC1CC(C)(C3)C2
Mol. weight [g/mol]:	164.29
CAS:	24145-88-8

Physical Properties

Property code	Value	Unit	Source
gf	199.40	kJ/mol	Joback Method
hf	-104.21	kJ/mol	Joback Method
hfus	14.99	kJ/mol	Joback Method
hvap	40.45	kJ/mol	Joback Method
log10ws	-3.32		Crippen Method
logp	3.469		Crippen Method
mcvol	147.360	ml/mol	McGowan Method
pc	2561.10	kPa	Joback Method
rinpol	1183.00		NIST Webbook
rinpol	1183.00		NIST Webbook
tb	489.35	K	Joback Method
tc	705.73	K	Joback Method
tf	290.72	K	Joback Method
vc	0.567	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	367.92	J/molxK	489.35	Joback Method
cpg	390.71	J/molxK	525.41	Joback Method
cpg	411.78	J/molxK	561.48	Joback Method
cpg	431.34	J/molxK	597.54	Joback Method
cpg	449.56	J/molxK	633.60	Joback Method
cpg	466.61	J/molxK	669.67	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C24145888&Units=SI
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
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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