

1,4-dimethyl-diamantane

Inchi:	InChI=1S/C16H24/c1-15-6-12-10-3-9-4-11(12)14(8-15)16(2,5-9)13(10)7-15/h9-14H,3-8H
InchiKey:	WYWWHPRNNYAIEF-UHFFFAOYSA-N
Formula:	C16H24
SMILES:	CC12CC3C4CC5CC3C(C1)C(C)(C5)C4C2
Mol. weight [g/mol]:	216.36

Physical Properties

Property code	Value	Unit	Source
gf	365.58	kJ/mol	Joback Method
hf	-33.95	kJ/mol	Joback Method
hfus	20.59	kJ/mol	Joback Method
hvap	47.37	kJ/mol	Joback Method
log10ws	-4.06		Crippen Method
logp	4.105		Crippen Method
mcvol	182.000	ml/mol	McGowan Method
pc	2187.68	kPa	Joback Method
rinpol	1572.00		NIST Webbook
tb	581.38	K	Joback Method
tc	808.57	K	Joback Method
tf	398.38	K	Joback Method
vc	0.718	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	544.75	J/mol×K	581.38	Joback Method
cpg	568.79	J/mol×K	619.24	Joback Method
cpg	591.03	J/mol×K	657.11	Joback Method
cpg	611.84	J/mol×K	694.97	Joback Method
cpg	631.64	J/mol×K	732.84	Joback Method
cpg	650.81	J/mol×K	770.70	Joback Method
cpg	669.75	J/mol×K	808.57	Joback Method

Sources

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=R514862&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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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