

Pentadecane, 2-methyl-2-phenyl-

Inchi:	InChI=1S/C22H38/c1-4-5-6-7-8-9-10-11-12-13-17-20-22(2,3)21-18-15-14-16-19-21/h14-
InchiKey:	MMEVGUGVEZBRNH-UHFFFAOYSA-N
Formula:	C22H38
SMILES:	CCCCCCCCCCCC(C)(C)c1ccccc1
Mol. weight [g/mol]:	302.54
CAS:	29138-94-1

Physical Properties

Property code	Value	Unit	Source
gf	249.61	kJ/mol	Joback Method
hf	-269.63	kJ/mol	Joback Method
hfus	39.36	kJ/mol	Joback Method
hvap	65.55	kJ/mol	Joback Method
log10ws	-7.81		Crippen Method
logp	7.665		Crippen Method
mcvol	297.080	ml/mol	McGowan Method
pc	1126.08	kPa	Joback Method
tb	726.21	K	Joback Method
tc	914.76	K	Joback Method
tf	244.00 ± 2.00	K	NIST Webbook
vc	1.149	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	886.76	J/molxK	726.21	Joback Method
cpg	907.93	J/molxK	757.63	Joback Method
cpg	927.95	J/molxK	789.06	Joback Method
cpg	946.87	J/molxK	820.48	Joback Method
cpg	964.77	J/molxK	851.91	Joback Method
cpg	981.71	J/molxK	883.33	Joback Method
cpg	997.75	J/molxK	914.76	Joback Method
dvisc	0.0022885	Paxs	366.54	Joback Method
dvisc	0.0008265	Paxs	426.49	Joback Method

dvisc	0.0003837	Paxs	486.43	Joback Method
dvisc	0.0002108	Paxs	546.38	Joback Method
dvisc	0.0001303	Paxs	606.32	Joback Method
dvisc	0.0000879	Paxs	666.27	Joback Method
dvisc	0.0000632	Paxs	726.21	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.cheméo.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=C29138941&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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