Benzene, (cyclohexylmethyl)-

Other names:	Methane, cyclohexylphenyl- Cyclohexane, (phenylmethyl)- «alpha»-Cyclohexyltoluene Benzylcyclohexane cyclohexylphenylmethane
Inchi:	InChI=1S/C13H18/c1-3-7-12(8-4-1)11-13-9-5-2-6-10-13/h1,3-4,7-8,13H,2,5-6,9-11H2
InchiKey:	AHHIZGRCBJEBIX-UHFFFAOYSA-N
Formula:	C13H18
SMILES:	c1ccc(CC2CCCCC2)cc1
Mol. weight [g/mol]:	174.28
CAS:	4410-75-7

Physical Properties

Property code	Value	Unit	Source
gf	195.44	kJ/mol	Joback Method
hf	-20.80	kJ/mol	Joback Method
hfus	15.30	kJ/mol	Joback Method
hvap	47.24	kJ/mol	Joback Method
log10ws	-4.02		Crippen Method
logp	3.809		Crippen Method
mcvol	159.410	ml/mol	McGowan Method
pc	2684.64	kPa	Joback Method
tb	543.07	K	Joback Method
tc	779.13	K	Joback Method
tf	270.07	K	Joback Method
vc	0.589	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	381.74	J/mol×K	543.07	Joback Method
cpg	403.63	J/mol×K	582.41	Joback Method
cpg	424.02	J/mol×K	621.76	Joback Method
cpg	442.98	J/mol×K	661.10	Joback Method

cpg	460.57	J/mol×K	700.44	Joback Method
cpg	476.86	J/mol×K	739.79	Joback Method
cpg	491.91	J/mol×K	779.13	Joback Method
dvisc	0.0049346	Pa×s	270.07	Joback Method
dvisc	0.0019994	Pa×s	315.57	Joback Method
dvisc	0.0010173	Pa×s	361.07	Joback Method
dvisc	0.0006021	Pa×s	406.57	Joback Method
dvisc	0.0003960	Pa×s	452.07	Joback Method
dvisc	0.0002812	Pa×s	497.57	Joback Method
dvisc	0.0002115	Pa×s	543.07	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C4410757&Units=SI
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

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