Cyclopentane, bromo-

Other names:	Bromocyclopentane
	Cyclopentyl bromide
Inchi:	InChI=1S/C5H9Br/c6-5-3-1-2-4-5/h5H,1-4H2
InchiKey:	BRTFVKHPEHKBQF-UHFFFAOYSA-N
Formula:	C5H9Br
SMILES:	BrC1CCCC1
Mol. weight [g/mol]:	149.03
CAS:	137-43-9

Physical Properties

Property code	Value	Unit	Source
gf	42.09	kJ/mol	Joback Method
hf	9.83	kJ/mol	NIST Webbook
hfus	7.93	kJ/mol	Joback Method
hvap	33.42	kJ/mol	Joback Method
ie	9.94 ± 0.02	eV	NIST Webbook
log10ws	-2.35		Crippen Method
logp	2.324		Crippen Method
mcvol	87.950	ml/mol	McGowan Method
pc	4762.81	kPa	Joback Method
rinpol	905.00		NIST Webbook
rinpol	905.00		NIST Webbook
tb	410.70	K	NIST Webbook
tc	614.76	K	Joback Method
tf	216.81	K	Joback Method
vc	0.319	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	140.14	J/mol×K	395.24	Joback Method
cpg	152.64	J/mol×K	431.83	Joback Method
cpg	164.36	J/mol×K	468.41	Joback Method
cpg	175.35	J/mol×K	505.00	Joback Method

cpg	185.63	J/mol×K	541.59	Joback Method
cpg	195.25	J/mol×K	578.17	Joback Method
cpg	204.23	J/mol×K	614.76	Joback Method
dvisc	0.0034445	Pa×s	216.81	Joback Method
dvisc	0.0020003	Pa×s	246.55	Joback Method
dvisc	0.0013058	Pa×s	276.29	Joback Method
dvisc	0.0009261	Pa×s	306.02	Joback Method
dvisc	0.0006980	Pa×s	335.76	Joback Method
dvisc	0.0005509	Pa×s	365.50	Joback Method
dvisc	0.0004505	Pa×s	395.24	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=C137439&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
ie: Ionization energy
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