Cyclopentane, 1,2-dibromo,trans-

Inchi: InChI=1S/C5H8Br2/c6-4-2-1-3-5(4)7/h4-5H,1-3H2/t4-,5-/m1/s1
InchiKey: LJCGLSZQABMYGU-RFZPGFLSSA-N
Formula: C5H8Br2
SMILES: BrC1CCCC1Br
Mol. weight [g/mol]: 227.93
CAS: 10230-26-9

Physical Properties

Property code	Value	Unit	Source
gf	48.70	kJ/mol	Joback Method
hf	-53.73	kJ/mol	Joback Method
hfus	14.28	kJ/mol	Joback Method
hvap	47.81	kJ/mol	NIST Webbook
ie	10.08 ± 0.02	eV	NIST Webbook
ie	10.04	eV	NIST Webbook
log10ws	-2.90		Crippen Method
logp	2.697		Crippen Method
mcvol	105.450	ml/mol	McGowan Method
pc	5008.59	kPa	Joback Method
tb	456.73	K	Joback Method
tc	696.66	K	Joback Method
tf	272.37	K	Joback Method
vc	0.380	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	238.75	J/mol×K	696.66	Joback Method
cpg	177.40	J/mol×K	456.73	Joback Method
cpg	189.64	J/mol×K	496.72	Joback Method
cpg	201.01	J/mol×K	536.71	Joback Method
cpg	211.56	J/mol×K	576.69	Joback Method
cpg	221.33	J/mol×K	616.68	Joback Method
cpg	230.38	J/mol×K	656.67	Joback Method

dvisc	0.0005417	Pa×s	456.73	Joback Method
dvisc	0.0024344	Pa×s	272.37	Joback Method
dvisc	0.0016691	Pa×s	303.10	Joback Method
dvisc	0.0012267	Pa×s	333.82	Joback Method
dvisc	0.0009496	Pa×s	364.55	Joback Method
dvisc	0.0007650	Pa×s	395.28	Joback Method
dvisc	0.0006358	Pa×s	426.00	Joback Method
hvapt	47.90	kJ/mol	302.50	NIST Webbook

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C10230269&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

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
hvapt: Enthalpy of vaporization at a given temperature
ie: Ionization energy
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