4-Bromo-1-pentene

Inchi: InChI=1S/C5H9Br/c1-3-4-5(2)6/h3,5H,1,4H2,2H3
InchiKey: PDBJRGFNXXAAMO-UHFFFAOYSA-N
Formula: C5H9Br
SMILES: C=CCC(C)Br
Mol. weight [g/mol]: 149.03
CAS: 31950-56-8

Physical Properties

Property code	Value	Unit	Source
gf	90.94	kJ/mol	Joback Method
hf	-0.05	kJ/mol	Joback Method
hfus	9.19	kJ/mol	Joback Method
hvap	32.10	kJ/mol	Joback Method
log10ws	-2.31		Crippen Method
logp	2.346		Crippen Method
mcvol	94.510	ml/mol	McGowan Method
pc	4010.84	kPa	Joback Method
tb	376.20	K	Joback Method
tc	569.74	K	Joback Method
tf	189.15	K	Joback Method
vc	0.352	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	147.42	J/mol×K	376.20	Joback Method
cpg	156.37	J/mol×K	408.46	Joback Method
cpg	164.86	J/mol×K	440.71	Joback Method
cpg	172.90	J/mol×K	472.97	Joback Method
cpg	180.51	J/mol×K	505.22	Joback Method
cpg	187.72	J/mol×K	537.48	Joback Method
cpg	194.54	J/mol×K	569.74	Joback Method
dvisc	0.0052133	Pa×s	189.15	Joback Method
dvisc	0.0023970	Pa×s	220.32	Joback Method

dvisc	0.0013362	Pa×s	251.50	Joback Method
dvisc	0.0008474	Pa×s	282.67	Joback Method
dvisc	0.0005882	Pa×s	313.85	Joback Method
dvisc	0.0004362	Pa×s	345.02	Joback Method
dvisc	0.0003399	Pa×s	376.20	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.36717e+01
Coeff. B	-2.64233e+03
Coeff. C	-9.27890e+01
Temperature range (K), min.	290.21
Temperature range (K), max.	408.85

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C31950568&Units=SI

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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

log10ws: Log10 of Water solubility in mol/l

logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume