

4-Bromo-3-fluorobenzotrifluoride

Inchi:	InChI=1S/C7H3BrF4/c8-5-2-1-4(3-6(5)9)7(10,11)12/h1-3H
InchiKey:	XCTQZIUICYJVRLJ-UHFFFAOYSA-N
Formula:	C7H3BrF4
SMILES:	Fc1cc(C(F)(F)F)ccc1Br
Mol. weight [g/mol]:	243.00
CAS:	40161-54-4

Physical Properties

Property code	Value	Unit	Source
gf	-660.87	kJ/mol	Joback Method
hf	-741.08	kJ/mol	Joback Method
hfus	17.34	kJ/mol	Joback Method
hvap	36.65	kJ/mol	Joback Method
log10ws	-4.07		Crippen Method
logp	3.607		Crippen Method
mcvol	110.310	ml/mol	McGowan Method
pc	3538.87	kPa	Joback Method
tb	456.21	K	Joback Method
tc	657.47	K	Joback Method
tf	284.69	K	Joback Method
vc	0.443	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	210.05	J/mol×K	456.21	Joback Method
cpg	219.04	J/mol×K	489.75	Joback Method
cpg	227.34	J/mol×K	523.30	Joback Method
cpg	235.00	J/mol×K	556.84	Joback Method
cpg	242.05	J/mol×K	590.38	Joback Method
cpg	248.54	J/mol×K	623.93	Joback Method
cpg	254.51	J/mol×K	657.47	Joback Method

Sources

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=C40161544&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvac:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mccvol:	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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