Methane, dibromofluoro-

Other names:	Dibromofluoromethane
Inchi:	InChI=1S/CHBr2F/c2-1(3)4/h1H
InchiKey:	LTUTVFXOEGMHMP-UHFFFAOYSA-N
Formula:	CHBr2F
SMILES:	FC(Br)Br
Mol. weight [g/mol]:	191.82
CAS:	1868-53-7

Physical Properties

Property code	Value	Unit	Source
gf	-211.07	kJ/mol	Joback Method
hf	-212.70	kJ/mol	Joback Method
hfus	8.47	kJ/mol	Joback Method
hvap	29.48	kJ/mol	Joback Method
log10ws	-2.06		Crippen Method
logp	2.029		Crippen Method
mcvol	61.720	ml/mol	McGowan Method
pc	6796.39	kPa	Joback Method
tb	338.00	K	NIST Webbook
tc	558.09	K	Joback Method
tf	206.22	K	Joback Method
vc	0.228	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	70.11	J/mol×K	353.43	Joback Method
cpg	72.85	J/mol×K	387.54	Joback Method
cpg	75.34	J/mol×K	421.65	Joback Method
cpg	77.60	J/mol×K	455.76	Joback Method
cpg	79.65	J/mol×K	489.87	Joback Method
cpg	81.50	J/mol×K	523.98	Joback Method
cpg	83.18	J/mol×K	558.09	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	2.18148e+01
Coeff. B	-5.81328e+03
Temperature range (K), min.	270.04
Temperature range (K), max.	352.25

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=C1868537&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

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
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

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