

Methane, bromodichlorofluoro-

Other names:	Bromodichlorofluoromethane Fluorodichlorobromomethane
Inchi:	InChI=1S/CBrCl2F/c2-1(3,4)5
InchiKey:	ARBYBCHKMDUXNE-UHFFFAOYSA-N
Formula:	CBrCl2F
SMILES:	FC(Cl)(Cl)Br
Mol. weight [g/mol]:	181.82
CAS:	353-58-2

Physical Properties

Property code	Value	Unit	Source
gf	-243.97	kJ/mol	Joback Method
hf	-273.98	kJ/mol	Joback Method
hfus	7.69	kJ/mol	Joback Method
hvap	30.91	kJ/mol	Joback Method
log10ws	-2.43		Crippen Method
logp	2.440		Crippen Method
mcvol	68.700	ml/mol	McGowan Method
pc	5527.84	kPa	Joback Method
tb	325.90	K	NIST Webbook
tc	568.97	K	Joback Method
tf	223.68	K	Joback Method
vc	0.259	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	84.44	J/mol×K	359.34	Joback Method
cpg	87.73	J/mol×K	394.28	Joback Method
cpg	90.59	J/mol×K	429.22	Joback Method
cpg	93.06	J/mol×K	464.16	Joback Method
cpg	95.16	J/mol×K	499.09	Joback Method
cpg	96.92	J/mol×K	534.03	Joback Method
cpg	98.39	J/mol×K	568.97	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.53272e+01
Coeff. B	-3.49003e+03
Temperature range (K), min.	232.06
Temperature range (K), max.	348.45

Sources

The Yaws Handbook of Vapor
Pressure:
Crippen Method:

<https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure>
<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=C353582&Units=SI>

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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