

Propane, 1,2-dibromo-3-chloro-

Other names:	1,2-Dibrom-3-chlor-propan 1,2-Dibromo-3-Chloropropane 1,2-Dibromo-3-cloro-propano 1,2-Dibroom-3-chloorpropaan 1,2-dibromo-3-chloropropane (DBCP) 1-Chloro-2,3-dibromopropane 3-Chloro-1,2-dibromopropane BBC 12 ClCH ₂ CHBrCH ₂ Br DBCP Dibromchlorpropan Dibromochloropropane Fumagon Fumazone Fumazone 86 Fumazone 86E NCI-C00500 NSC 1512 Nemabrom Nemafume Nemagon Nemagon 20 Nemagon 20G Nemagon 90 Nemagon Soil Fumigant Nemanax Nemapaz Nemaset Nemazon OS 1897 Propane, 1-chloro-2,3-dibromo- SD 1897
Inchi:	InChI=1S/C3H5Br2Cl/c4-1-3(5)2-6/h3H,1-2H2
InchiKey:	WBEJYOJJBDISQU-UHFFFAOYSA-N
Formula:	C ₃ H ₅ Br ₂ Cl
SMILES:	ClCC(Br)CBr
Mol. weight [g/mol]:	236.33
CAS:	96-12-8

Physical Properties

Property code	Value	Unit	Source
gf	-11.35	kJ/mol	Joback Method
hf	-73.61	kJ/mol	Joback Method
h _{fus}	14.77	kJ/mol	Joback Method
h _{vap}	39.14	kJ/mol	Joback Method
log ₁₀ ws	-2.38		Aqueous Solubility Prediction Method
logp	2.384		Crippen Method
m _{cvol}	100.370	ml/mol	McGowan Method
pc	5123.98	kPa	Joback Method
r _{inpol}	1095.64		NIST Webbook
r _{inpol}	1033.90		NIST Webbook
r _{inpol}	1036.00		NIST Webbook
r _{inpol}	1100.14		NIST Webbook
r _{inpol}	1089.72		NIST Webbook
r _{inpol}	1092.41		NIST Webbook
r _{inpol}	1063.00		NIST Webbook
r _{ipol}	1657.00		NIST Webbook
tb	437.35	K	Joback Method
tc	658.89	K	Joback Method
tf	258.09	K	Joback Method
vc	0.370	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
c _{pg}	143.00	J/mol×K	437.35	Joback Method
c _{pg}	148.99	J/mol×K	474.27	Joback Method
c _{pg}	154.54	J/mol×K	511.20	Joback Method
c _{pg}	159.68	J/mol×K	548.12	Joback Method
c _{pg}	164.44	J/mol×K	585.04	Joback Method
c _{pg}	168.85	J/mol×K	621.97	Joback Method
c _{pg}	172.94	J/mol×K	658.89	Joback Method
d _{visc}	0.0039928	Paxs	258.09	Joback Method
d _{visc}	0.0023005	Paxs	287.97	Joback Method
d _{visc}	0.0014702	Paxs	317.84	Joback Method
d _{visc}	0.0010147	Paxs	347.72	Joback Method

dvisc	0.0007427	Paxs	377.60	Joback Method
dvisc	0.0005690	Paxs	407.47	Joback Method
dvisc	0.0004521	Paxs	437.35	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Determination of Henry's Law Constants Using Internal Standards with Benchmark Values:	https://www.doi.org/10.1021/je3010535
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
Aqueous Solubility Prediction Method:	http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDataset002.xlsx
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C96128&Units=SI

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
rinpolar:	Non-polar retention indices
ripolar:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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