trans-1,2-Dibromocyclooctane

Inchi: InChI=1S/C8H14Br2/c9-7-5-3-1-2-4-6-8(7)10/h7-8H,1-6H2/t7-,8-/m0/s1
InchiKey: BOESCCYXMLOHNO-YUMQZZPRSA-N
Formula: C8H14Br2
SMILES: BrC1CCCCCCC1Br
Mol. weight [g/mol]: 270.00
CAS: 34969-65-8

Physical Properties

Property code	Value	Unit	Source
gf	37.66	kJ/mol	Joback Method
hf	-134.13	kJ/mol	Joback Method
hfus	15.75	kJ/mol	Joback Method
hvap	54.54	kJ/mol	NIST Webbook
log10ws	-4.15		Crippen Method
logp	3.868		Crippen Method
mcvol	147.720	ml/mol	McGowan Method
pc	3782.33	kPa	Joback Method
tb	538.18	K	Joback Method
tc	792.85	K	Joback Method
tf	295.62	K	Joback Method
vc	0.523	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	305.84	J/mol×K	538.18	Joback Method
cpg	324.56	J/mol×K	580.62	Joback Method
cpg	341.99	J/mol×K	623.07	Joback Method
cpg	358.16	J/mol×K	665.51	Joback Method
cpg	373.10	J/mol×K	707.96	Joback Method
cpg	386.86	J/mol×K	750.40	Joback Method
cpg	399.46	J/mol×K	792.85	Joback Method
dvisc	0.0044512	Pa×s	295.62	Joback Method
dvisc	0.0020240	Pa×s	336.05	Joback Method

dvisc	0.0010901	Pa×s	376.47	Joback Method
dvisc	0.0006620	Pa×s	416.90	Joback Method
dvisc	0.0004390	Pa×s	457.33	Joback Method
dvisc	0.0003113	Pa×s	497.75	Joback Method
dvisc	0.0002324	Pa×s	538.18	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C34969658&Units=SI
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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume