Benzene, 1,4-dibromo-2,5-dimethyl-

Other names:	1,4-Dibromo-2,5-dimethylbenzene
	2,5-Dibromo-1,4-dimethylbenzene
	2,5-Dibromo-p-xylene
	2,5-Dimethyl-1,4-dibromobenzene
	p-Xylene, 2,5-dibromo-
Inchi:	InChI=1S/C8H8Br2/c1-5-3-8(10)6(2)4-7(5)9/h3-4H,1-2H3
InchiKey:	QENIALCDPFDFHX-UHFFFAOYSA-N
Formula:	C8H8Br2
SMILES:	Cc1cc(Br)c(C)cc1Br
Mol. weight [g/mol]:	263.96
CAS:	1074-24-4

Physical Properties

Property code	Value	Unit	Source
gf	128.64	kJ/mol	Joback Method
hf	46.33	kJ/mol	Joback Method
hfus	19.92	kJ/mol	Joback Method
hvap	50.53	kJ/mol	Joback Method
log10ws	-4.75		Crippen Method
logp	3.828		Crippen Method
mcvol	134.820	ml/mol	McGowan Method
pc	4098.62	kPa	Joback Method
tb	534.20	K	NIST Webbook
tc	804.69	K	Joback Method
tf	363.50	K	Joback Method
vc	0.499	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	244.05	J/mol×K	556.38	Joback Method
cpg	254.08	J/mol×K	597.77	Joback Method
cpg	263.42	J/mol×K	639.15	Joback Method
cpg	272.13	J/mol×K	680.54	Joback Method

cpg	280.23	J/mol×K	721.92	Joback Method
cpg	287.79	J/mol×K	763.31	Joback Method
cpg	294.83	J/mol×K	804.69	Joback Method
dvisc	0.0011896	Pa×s	363.50	Joback Method
dvisc	0.0008483	Pa×s	395.65	Joback Method
dvisc	0.0006364	Pa×s	427.79	Joback Method
dvisc	0.0004971	Pa×s	459.94	Joback Method
dvisc	0.0004009	Pa×s	492.09	Joback Method
dvisc	0.0003320	Pa×s	524.23	Joback Method
dvisc	0.0002810	Pa×s	556.38	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	423.20	K	2.80	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.40022e+01
Coeff. B	-4.17165e+03
Coeff. C	-8.96440e+01
Temperature range (K), min.	393.82
Temperature range (K), max.	569.66

Sources

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=C1074244&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

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

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
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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