Benzene, 2-butyl-1,4-dimethyl

Other names: 1,4-dimethyl-2-n-butylbenzene
Inchi: InChI=1S/C12H18/c1-4-5-6-12-9-10(2)7-8-11(12)3/h7-9H,4-6H2,1-3H3
InchiKey: ZRJNQRHSLVSHNI-UHFFFAOYSA-N
Formula: C12H18
SMILES: CCCCc1cc(C)ccc1C
Mol. weight [g/mol]: 162.27

Physical Properties

Property code	Value	Unit	Source
gf	143.31	kJ/mol	Joback Method
hf	-77.42	kJ/mol	Joback Method
hfus	20.10	kJ/mol	Joback Method
hvap	45.91	kJ/mol	Joback Method
log10ws	-4.06		Crippen Method
logp	3.646		Crippen Method
mcvol	156.180	ml/mol	McGowan Method
pc	2336.03	kPa	Joback Method
rinpol	1167.10		NIST Webbook
rinpol	1167.10		NIST Webbook
rinpol	1165.30		NIST Webbook
rinpol	1165.30		NIST Webbook
rinpol	1165.30		NIST Webbook
ripol	1469.00		NIST Webbook
ripol	1518.00		NIST Webbook
ripol	1469.20		NIST Webbook
ripol	1519.00		NIST Webbook
ripol	1532.00		NIST Webbook
ripol	1469.00		NIST Webbook
ripol	1505.00		NIST Webbook
ripol	1559.00		NIST Webbook
ripol	1546.00		NIST Webbook
tb	510.60	K	Joback Method
tc	712.18	K	Joback Method
tf	276.46	K	Joback Method
vc	0.600	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	346.80	J/mol×K	510.60	Joback Method
cpg	419.85	J/mol×K	678.59	Joback Method
cpg	406.73	J/mol×K	644.99	Joback Method
cpg	392.88	J/mol×K	611.39	Joback Method
cpg	378.30	J/mol×K	577.79	Joback Method
cpg	362.94	J/mol×K	544.20	Joback Method
cpg	432.28	J/mol×K	712.18	Joback Method
dvisc	0.0001933	Pa×s	510.60	Joback Method
dvisc	0.0002414	Pa×s	471.58	Joback Method
dvisc	0.0003139	Pa×s	432.55	Joback Method
dvisc	0.0004298	Pa×s	393.53	Joback Method
dvisc	0.0006307	Pa×s	354.51	Joback Method
dvisc	0.0010177	Pa×s	315.48	Joback Method
dvisc	0.0018797	Pa×s	276.46	Joback Method

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=R20295&Units=SI
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
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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