Benzoyl chloride, 4-butyl-

Other names:	4-Butylbenzoyl chloride
	p-Butylbenzoyl chloride
	4-n-Butylbenzoyl chloride
Inchi:	InChI=1S/C11H13ClO/c1-2-3-4-9-5-7-10(8-6-9)11(12)13/h5-8H,2-4H2,1H3
InchiKey:	OUOWCSJYDCPVDM-UHFFFAOYSA-N
Formula:	C11H13ClO
SMILES:	CCCCc1ccc(C(=O)Cl)cc1
Mol. weight [g/mol]:	196.67
CAS:	28788-62-7

Physical Properties

Property code	Value	Unit	Source
gf	3.67	kJ/mol	Joback Method
hf	-173.63	kJ/mol	Joback Method
hfus	23.69	kJ/mol	Joback Method
hvap	54.15	kJ/mol	Joback Method
log10ws	-4.00		Crippen Method
logp	3.408		Crippen Method
mcvol	155.900	ml/mol	McGowan Method
pc	2679.08	kPa	Joback Method
rinpol	1522.00		NIST Webbook
tb	574.04	K	Joback Method
tc	790.99	K	Joback Method
tf	332.52	K	Joback Method
vc	0.599	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	348.64	J/mol×K	574.04	Joback Method
cpg	362.22	J/mol×K	610.20	Joback Method
cpg	374.97	J/mol×K	646.36	Joback Method
cpg	386.91	J/mol×K	682.52	Joback Method
cpg	398.09	J/mol×K	718.67	Joback Method

cpg	408.53	J/mol×K	754.83	Joback Method
cpg	418.27	J/mol×K	790.99	Joback Method
dvisc	0.0021679	Pa×s	332.52	Joback Method
dvisc	0.0012297	Pa×s	372.77	Joback Method
dvisc	0.0007791	Pa×s	413.03	Joback Method
dvisc	0.0005352	Pa×s	453.28	Joback Method
dvisc	0.0003909	Pa×s	493.53	Joback Method
dvisc	0.0002994	Pa×s	533.79	Joback Method
dvisc	0.0002380	Pa×s	574.04	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	428.70	K	2.90	NIST Webbook

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=C28788627&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
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume