Benzoic acid, diphenylmethyl ester

Inchi: InChI=1S/C20H16O2/c21-20(18-14-8-3-9-15-18)22-19(16-10-4-1-5-11-16)17-12-6-2-7-13
InchiKey: ZNRTVHASLDGVBC-UHFFFAOYSA-N
Formula: C20H16O2
SMILES: O=C(OC(c1ccccc1)c1ccccc1)c1ccccc1
Mol. weight [g/mol]: 288.34

Physical Properties

Property code	Value	Unit	Source
gf	218.39	kJ/mol	Joback Method
hf	3.38	kJ/mol	Joback Method
hfus	28.94	kJ/mol	Joback Method
hvap	75.71	kJ/mol	Joback Method
log10ws	-5.50		Crippen Method
logp	4.633		Crippen Method
mcvol	228.820	ml/mol	McGowan Method
pc	2287.14	kPa	Joback Method
rinpol	2408.00		NIST Webbook
rinpol	2408.00		NIST Webbook
tb	812.89	K	Joback Method
tc	1074.42	K	Joback Method
tf	451.58	K	Joback Method
vc	0.850	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	646.88	J/mol×K	812.89	Joback Method
cpg	662.56	J/mol×K	856.48	Joback Method
cpg	676.66	J/mol×K	900.07	Joback Method
cpg	689.29	J/mol×K	943.65	Joback Method
cpg	700.57	J/mol×K	987.24	Joback Method
cpg	710.62	J/mol×K	1030.83	Joback Method
cpg	719.56	J/mol×K	1074.42	Joback Method
dvisc	0.0010059	Pa×s	451.58	Joback Method

dvisc	0.0004978	Pa×s	511.80	Joback Method
dvisc	0.0002857	Pa×s	572.02	Joback Method
dvisc	0.0001822	Pa×s	632.24	Joback Method
dvisc	0.0001257	Pa×s	692.45	Joback Method
dvisc	0.0000920	Pa×s	752.67	Joback Method
dvisc	0.0000705	Pa×s	812.89	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U368976&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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume