1,2-Cyclohexanedicarboxylic acid, dicyclohexyl ester

Inchi: InChI=1S/C20H32O4/c21-19(23-15-9-3-1-4-10-15)17-13-7-8-14-18(17)20(22)24-16-11-5
InchiKey: VKPGBQAXQBOSCY-UHFFFAOYSA-N
Formula: C20H32O4
SMILES: O=C(OC1CCCCC1)C1CCCCC1C(=O)OC1CCCCC1
Mol. weight [g/mol]: 336.47

Physical Properties

Property code	Value	Unit	Source
gf	-284.68	kJ/mol	Joback Method
hf	-803.11	kJ/mol	Joback Method
hfus	29.71	kJ/mol	Joback Method
hvap	79.40	kJ/mol	Joback Method
log10ws	-5.34		Crippen Method
logp	4.545		Crippen Method
mcvol	274.960	ml/mol	McGowan Method
pc	1647.09	kPa	Joback Method
rinpol	2480.00		NIST Webbook
rinpol	2480.00		NIST Webbook
tb	863.56	K	Joback Method
tc	1103.01	K	Joback Method
tf	477.38	K	Joback Method
vc	1.002	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	963.67	J/mol×K	863.56	Joback Method
cpg	985.27	J/mol×K	903.47	Joback Method
cpg	1004.56	J/mol×K	943.38	Joback Method
cpg	1021.60	J/mol×K	983.28	Joback Method
cpg	1036.41	J/mol×K	1023.19	Joback Method
cpg	1049.03	J/mol×K	1063.10	Joback Method
cpg	1059.51	J/mol×K	1103.01	Joback Method
dvisc	0.0013290	Pa×s	477.38	Joback Method

dvisc	0.0006213	Pa×s	541.74	Joback Method
dvisc	0.0003414	Pa×s	606.11	Joback Method
dvisc	0.0002104	Pa×s	670.47	Joback Method
dvisc	0.0001412	Pa×s	734.83	Joback Method
dvisc	0.0001010	Pa×s	799.20	Joback Method
dvisc	0.0000760	Pa×s	863.56	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=U339766&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
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume