

Carbonic acid, bis(2-ethylhexyl) ester

Other names:	bis(2-ethylhexyl) carbonate
Inchi:	InChI=1S/C17H34O3/c1-5-9-11-15(7-3)13-19-17(18)20-14-16(8-4)12-10-6-2/h15-16H,5-
InchiKey:	PXTQQOLKZBLYDY-UHFFFAOYSA-N
Formula:	C17H34O3
SMILES:	CCCCC(CC)COC(=O)OCC(CC)CCCC
Mol. weight [g/mol]:	286.45
CAS:	14858-73-2

Physical Properties

Property code	Value	Unit	Source
gf	-251.54	kJ/mol	Joback Method
hf	-781.79	kJ/mol	Joback Method
hfus	36.71	kJ/mol	Joback Method
hvap	64.23	kJ/mol	Joback Method
log10ws	-5.38		Crippen Method
logp	5.572		Crippen Method
mcvol	263.700	ml/mol	McGowan Method
pc	1270.97	kPa	Joback Method
tb	686.19	K	Joback Method
tc	858.60	K	Joback Method
tf	345.74	K	Joback Method
vc	1.018	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	764.61	J/mol×K	686.19	Joback Method
cpg	849.24	J/mol×K	829.86	Joback Method
cpg	833.97	J/mol×K	801.13	Joback Method
cpg	817.88	J/mol×K	772.39	Joback Method
cpg	800.96	J/mol×K	743.66	Joback Method
cpg	783.21	J/mol×K	714.92	Joback Method
cpg	863.71	J/mol×K	858.60	Joback Method
dvisc	0.0000713	Paxs	686.19	Joback Method

dvisc	0.0000987	Paxs	629.45	Joback Method
dvisc	0.0001458	Paxs	572.71	Joback Method
dvisc	0.0002347	Paxs	515.97	Joback Method
dvisc	0.0004247	Paxs	459.22	Joback Method
dvisc	0.0009085	Paxs	402.48	Joback Method
dvisc	0.0024947	Paxs	345.74	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=C14858732&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

cp_g:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
g_f:	Standard Gibbs free energy of formation
h_f:	Enthalpy of formation at standard conditions
h_{fus}:	Enthalpy of fusion at standard conditions
h_{vap}:	Enthalpy of vaporization at standard conditions
log₁₀ws:	Log ₁₀ of Water solubility in mol/l
log_p:	Octanol/Water partition coefficient
mc_{vol}:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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