

Carbonic acid, dipentyl ester

Other names:	Diamyl carbonate Di-N-amyl carbonate Carbonic acid, di-N-amyl ester
Inchi:	InChI=1S/C11H22O3/c1-3-5-7-9-13-11(12)14-10-8-6-4-2/h3-10H2,1-2H3
InchiKey:	HSNQKJVQUFYBBY-UHFFFAOYSA-N
Formula:	C11H22O3
SMILES:	CCCCCOC(=O)OCCCCC
Mol. weight [g/mol]:	202.29
CAS:	2050-94-4

Physical Properties

Property code	Value	Unit	Source
gf	-297.18	kJ/mol	Joback Method
hf	-647.39	kJ/mol	Joback Method
hfus	28.22	kJ/mol	Joback Method
hvap	51.65	kJ/mol	Joback Method
log10ws	-3.35		Crippen Method
logp	3.520		Crippen Method
mcvol	179.160	ml/mol	McGowan Method
pc	1984.12	kPa	Joback Method
tb	549.79	K	Joback Method
tc	720.36	K	Joback Method
tf	308.12	K	Joback Method
vc	0.694	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	442.25	J/mol×K	549.79	Joback Method
cpg	457.00	J/mol×K	578.22	Joback Method
cpg	471.21	J/mol×K	606.65	Joback Method
cpg	484.89	J/mol×K	635.08	Joback Method
cpg	498.03	J/mol×K	663.50	Joback Method
cpg	510.63	J/mol×K	691.93	Joback Method

cpg	522.70	J/mol×K	720.36	Joback Method
dvisc	0.0022797	Pa×s	308.12	Joback Method
dvisc	0.0011445	Pa×s	348.40	Joback Method
dvisc	0.0006628	Pa×s	388.68	Joback Method
dvisc	0.0004253	Pa×s	428.95	Joback Method
dvisc	0.0002945	Pa×s	469.23	Joback Method
dvisc	0.0002161	Pa×s	509.51	Joback Method
dvisc	0.0001660	Pa×s	549.79	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2050944&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.cheméo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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