

Isobutyl (2-(2-methoxyethoxy)ethyl) carbonate

Inchi:	InChI=1S/C10H20O5/c1-9(2)8-15-10(11)14-7-6-13-5-4-12-3/h9H,4-8H2,1-3H3
InchiKey:	RLUCCJLFBMVKQD-UHFFFAOYSA-N
Formula:	C10H20O5
SMILES:	COCCOCCOC(=O)OCC(C)C
Mol. weight [g/mol]:	220.26

Physical Properties

Property code	Value	Unit	Source
gf	-518.04	kJ/mol	Joback Method
hf	-896.47	kJ/mol	Joback Method
hfus	24.48	kJ/mol	Joback Method
hvap	53.85	kJ/mol	Joback Method
log10ws	-0.87		Crippen Method
logp	1.459		Crippen Method
mcvol	176.810	ml/mol	McGowan Method
pc	2113.89	kPa	Joback Method
rinsol	1432.00		NIST Webbook
tb	571.31	K	Joback Method
tc	745.27	K	Joback Method
tf	326.31	K	Joback Method
vc	0.667	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	447.01	J/molxK	571.31	Joback Method
cpg	461.02	J/molxK	600.30	Joback Method
cpg	474.56	J/molxK	629.30	Joback Method
cpg	487.62	J/molxK	658.29	Joback Method
cpg	500.18	J/molxK	687.28	Joback Method
cpg	512.21	J/molxK	716.27	Joback Method
cpg	523.71	J/molxK	745.27	Joback Method
dvisc	0.0015613	Paxs	326.31	Joback Method
dvisc	0.0007831	Paxs	367.14	Joback Method

dvisc	0.0004510	Paxs	407.98	Joback Method
dvisc	0.0002871	Paxs	448.81	Joback Method
dvisc	0.0001971	Paxs	489.64	Joback Method
dvisc	0.0001434	Paxs	530.48	Joback Method
dvisc	0.0001092	Paxs	571.31	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U378282&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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