2-(2-(2-(2-(2-(2-Isobutoxy-ethoxy)-ethoxy)-ethoxy)-ethoxy)-ethoxy)-acetate

Inchi: InChI=1S/C20H40O9/c1-19(2)18-28-15-14-26-11-10-24-7-6-22-4-5-23-8-9-25-12-13-27-1

InchiKey: QSVBQQRMBPVODZ-UHFFFAOYSA-N

Formula: C20H40O9

SMILES: CC(=O)OCCOCCOCCOCCOCCOCCOCCOCC(C)C

Mol. weight [g/mol]: 424.53

Physical Properties

Property code	Value	Unit	Source
gf	-853.84	kJ/mol	Joback Method
hf	-1631.75	kJ/mol	Joback Method
hfus	55.14	kJ/mol	Joback Method
hvap	85.75	kJ/mol	Joback Method
log10ws	-0.43		Crippen Method
logp	1.322		Crippen Method
mcvol	341.190	ml/mol	McGowan Method
pc	974.73	kPa	Joback Method
rinpol	2776.30		NIST Webbook
tb	889.79	K	Joback Method
tc	1090.73	K	Joback Method
tf	527.93	K	Joback Method
vc	1.300	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1135.86	J/mol×K	889.79	Joback Method
cpg	1208.36	J/mol×K	1057.24	Joback Method
cpg	1197.53	J/mol×K	1023.75	Joback Method
cpg	1184.82	J/mol×K	990.26	Joback Method
cpg	1170.26	J/mol×K	956.77	Joback Method
cpg	1153.93	J/mol×K	923.28	Joback Method
cpg	1217.26	J/mol×K	1090.73	Joback Method
dvisc	0.0000086	Pa×s	889.79	Joback Method
dvisc	0.0000114	Pa×s	829.48	Joback Method

dvisc	0.0000158	Pa×s	769.17	Joback Method
dvisc	0.0000232	Pa×s	708.86	Joback Method
dvisc	0.0000365	Pa×s	648.55	Joback Method
dvisc	0.0000630	Pa×s	588.24	Joback Method
dvisc	0.0001233	Pa×s	527.93	Joback Method

Sources

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=R187950&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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