2-(2-(2-(2-(2-(2-Butoxy-ethoxy)-ethoxy)-ethoxy)-ethoxy)-et

Other names: Heptaethylene glycol, butyl ether
Inchi: InChI=1S/C18H38O8/c1-2-3-5-20-7-9-22-11-13-24-15-17-26-18-16-25-14-12-23-10-8-21
InchiKey: QIBDLDQWDGOWTN-UHFFFAOYSA-N
Formula: C18H38O8
SMILES: CCCCOCCOCCOCCOCCOCCOCCOCCO
Mol. weight [g/mol]: 382.49

Physical Properties

Property code	Value	Unit	Source
gf	-771.14	kJ/mol	Joback Method
hf	-1492.62	kJ/mol	Joback Method
hfus	54.78	kJ/mol	Joback Method
hvap	89.21	kJ/mol	Joback Method
log10ws	-0.23		Crippen Method
logp	0.895		Crippen Method
mcvol	311.440	ml/mol	McGowan Method
pc	1131.38	kPa	Joback Method
rinpol	2696.40		NIST Webbook
rinpol	2696.40		NIST Webbook
tb	860.36	K	Joback Method
tc	1055.89	K	Joback Method
tf	509.05	K	Joback Method
vc	1.188	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1030.12	J/mol×K	860.36	Joback Method
cpg	1104.49	J/mol×K	1023.30	Joback Method
cpg	1092.59	J/mol×K	990.72	Joback Method
cpg	1079.16	J/mol×K	958.13	Joback Method
cpg	1064.25	J/mol×K	925.54	Joback Method
cpg	1047.89	J/mol×K	892.95	Joback Method
cpg	1114.84	J/mol×K	1055.89	Joback Method

dvisc	0.0000028	Pa×s	860.36	Joback Method
dvisc	0.0000041	Pa×s	801.81	Joback Method
dvisc	0.0000064	Pa×s	743.26	Joback Method
dvisc	0.0000109	Pa×s	684.71	Joback Method
dvisc	0.0000203	Pa×s	626.15	Joback Method
dvisc	0.0000433	Pa×s	567.60	Joback Method
dvisc	0.0001095	Pa×s	509.05	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=R187905&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