Butyl tetracosyl ether

Inchi: InChI=1S/C28H58O/c1-3-5-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26
InchiKey: DYNZGNVSKDCGES-UHFFFAOYSA-N
Formula: C28H58O
SMILES: CCCCCCCCCCCCCCCCCCCCCCCCCOCCCC
Mol. weight [g/mol]: 410.76

Physical Properties

Property code	Value	Unit	Source
gf	79.88	kJ/mol	Joback Method
hf	-753.47	kJ/mol	Joback Method
hfus	69.46	kJ/mol	Joback Method
hvap	80.33	kJ/mol	Joback Method
log10ws	-10.63		Crippen Method
logp	10.405		Crippen Method
mcvol	411.250	ml/mol	McGowan Method
pc	649.78	kPa	Joback Method
rinpol	2877.00		NIST Webbook
rinpol	2877.00		NIST Webbook
tb	862.46	K	Joback Method
tc	1059.66	K	Joback Method
tf	427.55	K	Joback Method
vc	1.621	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1384.56	J/mol×K	862.46	Joback Method
cpg	1410.17	J/mol×K	895.33	Joback Method
cpg	1434.34	J/mol×K	928.19	Joback Method
cpg	1457.12	J/mol×K	961.06	Joback Method
cpg	1478.56	J/mol×K	993.93	Joback Method
cpg	1498.72	J/mol×K	1026.79	Joback Method
cpg	1517.66	J/mol×K	1059.66	Joback Method
dvisc	0.0009084	Pa×s	427.55	Joback Method

dvisc	0.0003209	Pa×s	500.03	Joback Method
dvisc	0.0001475	Pa×s	572.52	Joback Method
dvisc	0.0000808	Pa×s	645.00	Joback Method
dvisc	0.0000499	Pa×s	717.49	Joback Method
dvisc	0.0000337	Pa×s	789.98	Joback Method
dvisc	0.0000243	Pa×s	862.46	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=U406409&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