Isobutyl tetracosyl ether

Inchi: InChI=1S/C28H58O/c1-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-2
InchiKey: BYHUQYLQWPAJPF-UHFFFAOYSA-N
Formula: C28H58O
SMILES: CCCCCCCCCCCCCCCCCCCCCCCCCOCC(C)C
Mol. weight [g/mol]: 410.76

Physical Properties

Property code	Value	Unit	Source
gf	77.44	kJ/mol	Joback Method
hf	-758.75	kJ/mol	Joback Method
hfus	65.94	kJ/mol	Joback Method
hvap	79.94	kJ/mol	Joback Method
log10ws	-10.39		Crippen Method
logp	10.261		Crippen Method
mcvol	411.250	ml/mol	McGowan Method
pc	652.43	kPa	Joback Method
rinpol	2829.00		NIST Webbook
rinpol	2829.00		NIST Webbook
tb	862.02	K	Joback Method
tc	1058.17	K	Joback Method
tf	412.55	K	Joback Method
vc	1.615	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1384.93	J/mol×K	862.02	Joback Method
cpg	1410.40	J/mol×K	894.71	Joback Method
cpg	1434.43	J/mol×K	927.40	Joback Method
cpg	1457.08	J/mol×K	960.09	Joback Method
cpg	1478.38	J/mol×K	992.79	Joback Method
cpg	1498.42	J/mol×K	1025.48	Joback Method
cpg	1517.23	J/mol×K	1058.17	Joback Method
dvisc	0.0011304	Pa×s	412.55	Joback Method

dvisc	0.0003553	Pa×s	487.46	Joback Method
dvisc	0.0001520	Pa×s	562.37	Joback Method
dvisc	0.0000794	Pa×s	637.28	Joback Method
dvisc	0.0000476	Pa×s	712.20	Joback Method
dvisc	0.0000314	Pa×s	787.11	Joback Method
dvisc	0.0000223	Pa×s	862.02	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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=U406332&Units=SI

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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