Octyl tetracosyl ether

Inchi: InChI=1S/C32H66O/c1-3-5-7-9-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-28-3
InchiKey: PWYVIYHIAVGTGW-UHFFFAOYSA-N
Formula: C32H66O
SMILES: CCCCCCCCCCCCCCCCCCCCCCCCCOCCCCCCCC
Mol. weight [g/mol]: 466.87

Physical Properties

Property code	Value	Unit	Source
gf	113.56	kJ/mol	Joback Method
hf	-836.03	kJ/mol	Joback Method
hfus	79.82	kJ/mol	Joback Method
hvap	89.24	kJ/mol	Joback Method
log10ws	-12.30		Crippen Method
logp	11.966		Crippen Method
mcvol	467.610	ml/mol	McGowan Method
pc	539.08	kPa	Joback Method
rinpol	3252.00		NIST Webbook
tb	953.98	K	Joback Method
tc	1192.42	K	Joback Method
tf	472.63	K	Joback Method
vc	1.845	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1654.49	J/mol×K	953.98	Joback Method
cpg	1783.31	J/mol×K	1152.68	Joback Method
cpg	1761.29	J/mol×K	1112.94	Joback Method
cpg	1737.51	J/mol×K	1073.20	Joback Method
cpg	1711.87	J/mol×K	1033.46	Joback Method
cpg	1684.24	J/mol×K	993.72	Joback Method
cpg	1803.69	J/mol×K	1192.42	Joback Method
dvisc	0.0000132	Pa×s	953.98	Joback Method
dvisc	0.0000183	Pa×s	873.76	Joback Method

dvisc	0.0000273	Pa×s	793.53	Joback Method
dvisc	0.0000445	Pa×s	713.31	Joback Method
dvisc	0.0000821	Pa×s	633.08	Joback Method
dvisc	0.0001809	Pa×s	552.86	Joback Method
dvisc	0.0005211	Pa×s	472.63	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U406390&Units=SI
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

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