Eicosyl heptyl ether

Inchi: InChI=1S/C27H56O/c1-3-5-7-9-10-11-12-13-14-15-16-17-18-19-20-21-23-25-27-28-26-2
InchiKey: GHADBYIKBVNTHT-UHFFFAOYSA-N
Formula: C27H56O
SMILES: CCCCCCCCCCCCCCCCCCCCCOCCCCCCC
Mol. weight [g/mol]: 396.73

Physical Properties

Property code	Value	Unit	Source
gf	71.46	kJ/mol	Joback Method
hf	-732.83	kJ/mol	Joback Method
hfus	66.87	kJ/mol	Joback Method
hvap	78.11	kJ/mol	Joback Method
log10ws	-10.21		Crippen Method
logp	10.015		Crippen Method
mcvol	397.160	ml/mol	McGowan Method
pc	682.78	kPa	Joback Method
rinpol	2763.00		NIST Webbook
tb	839.58	K	Joback Method
tc	1029.43	K	Joback Method
tf	416.28	K	Joback Method
vc	1.565	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1318.29	J/mol×K	839.58	Joback Method
cpg	1429.45	J/mol×K	997.78	Joback Method
cpg	1409.69	J/mol×K	966.14	Joback Method
cpg	1388.75	J/mol×K	934.50	Joback Method
cpg	1366.56	J/mol×K	902.86	Joback Method
cpg	1343.10	J/mol×K	871.22	Joback Method
cpg	1448.06	J/mol×K	1029.43	Joback Method
dvisc	0.0000282	Pa×s	839.58	Joback Method
dvisc	0.0000391	Pa×s	769.03	Joback Method

dvisc	0.0000578	Pa×s	698.48	Joback Method
dvisc	0.0000933	Pa×s	627.93	Joback Method
dvisc	0.0001699	Pa×s	557.38	Joback Method
dvisc	0.0003681	Pa×s	486.83	Joback Method
dvisc	0.0010370	Pa×s	416.28	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U406396&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