Butyl eicosyl ether

Inchi: InChI=1S/C24H50O/c1-3-5-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-24-25-23-6-4
InchiKey: TTZAPPKPTGLRTD-UHFFFAOYSA-N
Formula: C24H50O
SMILES: CCCCCCCCCCCCCCCCCCCCCOCCCC
Mol. weight [g/mol]: 354.65

Physical Properties

Property code	Value	Unit	Source
gf	46.20	kJ/mol	Joback Method
hf	-670.91	kJ/mol	Joback Method
hfus	59.10	kJ/mol	Joback Method
hvap	71.43	kJ/mol	Joback Method
log10ws	-8.96		Crippen Method
logp	8.845		Crippen Method
mcvol	354.890	ml/mol	McGowan Method
pc	798.43	kPa	Joback Method
rinpol	2476.00		NIST Webbook
tb	770.94	K	Joback Method
tc	944.39	K	Joback Method
tf	382.47	K	Joback Method
vc	1.397	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1123.31	J/mol×K	770.94	Joback Method
cpg	1146.09	J/mol×K	799.85	Joback Method
cpg	1167.79	J/mol×K	828.76	Joback Method
cpg	1188.45	J/mol×K	857.67	Joback Method
cpg	1208.10	J/mol×K	886.57	Joback Method
cpg	1226.77	J/mol×K	915.48	Joback Method
cpg	1244.48	J/mol×K	944.39	Joback Method
dvisc	0.0015134	Pa×s	382.47	Joback Method
dvisc	0.0005462	Pa×s	447.22	Joback Method

dvisc	0.0002551	Pa×s	511.96	Joback Method
dvisc	0.0001413	Pa×s	576.70	Joback Method
dvisc	0.0000882	Pa×s	641.45	Joback Method
dvisc	0.0000601	Pa×s	706.19	Joback Method
dvisc	0.0000436	Pa×s	770.94	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U406407&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

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