

Eicosyl pentyl ether

Inchi:	InChI=1S/C25H52O/c1-3-5-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-23-25-26-24-22
InchiKey:	RZWNIPOPPCDVNE-UHFFFAOYSA-N
Formula:	C25H52O
SMILES:	CCCCCCCCCCCCCCCCCCCCOCCCCC
Mol. weight [g/mol]:	368.68

Physical Properties

Property code	Value	Unit	Source
gf	54.62	kJ/mol	Joback Method
hf	-691.55	kJ/mol	Joback Method
hfus	61.69	kJ/mol	Joback Method
hvap	73.65	kJ/mol	Joback Method
log10ws	-9.37		Crippen Method
logp	9.235		Crippen Method
mcvol	368.980	ml/mol	McGowan Method
pc	756.82	kPa	Joback Method
rinpol	2572.00		NIST Webbook
tb	793.82	K	Joback Method
tc	971.87	K	Joback Method
tf	393.74	K	Joback Method
vc	1.454	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1187.61	J/molxK	793.82	Joback Method
cpg	1211.00	J/molxK	823.49	Joback Method
cpg	1233.24	J/molxK	853.17	Joback Method
cpg	1254.37	J/molxK	882.84	Joback Method
cpg	1274.42	J/molxK	912.52	Joback Method
cpg	1293.43	J/molxK	942.19	Joback Method
cpg	1311.43	J/molxK	971.87	Joback Method
dvisc	0.0013388	Paxs	393.74	Joback Method
dvisc	0.0004804	Paxs	460.42	Joback Method

dvisc	0.0002234	Paxs	527.10	Joback Method
dvisc	0.0001234	Paxs	593.78	Joback Method
dvisc	0.0000768	Paxs	660.46	Joback Method
dvisc	0.0000522	Paxs	727.14	Joback Method
dvisc	0.0000378	Paxs	793.82	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U406420&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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

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