Heptadecanoic acid, n.-octyl ester

Other names: octyl heptadecanoate
Inchi: InChI=1S/C25H50O2/c1-3-5-7-9-11-12-13-14-15-16-17-18-19-21-23-25(26)27-24-22-20-
InchiKey: BETFGJBKHNMSDD-UHFFFAOYSA-N
Formula: C25H50O2
SMILES: CCCCCCCCCCCCCCCCC(=O)OCCCCCCCC
Mol. weight [g/mol]: 382.66

Physical Properties

Property code	Value	Unit	Source
gf	-74.30	kJ/mol	Joback Method
hf	-804.13	kJ/mol	Joback Method
hfus	63.29	kJ/mol	Joback Method
hvap	80.40	kJ/mol	Joback Method
log10ws	-9.15		Crippen Method
logp	8.762		Crippen Method
mcvol	370.550	ml/mol	McGowan Method
pc	783.75	kPa	Joback Method
rinpol	2658.84		NIST Webbook
rinpol	2658.84		NIST Webbook
tb	847.69	K	Joback Method
tc	1038.15	K	Joback Method
tf	443.67	K	Joback Method
vc	1.460	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1220.77	J/mol×K	847.69	Joback Method
cpg	1243.05	J/mol×K	879.43	Joback Method
cpg	1264.07	J/mol×K	911.18	Joback Method
cpg	1283.89	J/mol×K	942.92	Joback Method
cpg	1302.54	J/mol×K	974.66	Joback Method
cpg	1320.07	J/mol×K	1006.41	Joback Method
cpg	1336.53	J/mol×K	1038.15	Joback Method

dvisc	0.0009384	Pa×s	443.67	Joback Method
dvisc	0.0003813	Pa×s	511.01	Joback Method
dvisc	0.0001910	Pa×s	578.34	Joback Method
dvisc	0.0001106	Pa×s	645.68	Joback Method
dvisc	0.0000710	Pa×s	713.02	Joback Method
dvisc	0.0000492	Pa×s	780.35	Joback Method
dvisc	0.0000361	Pa×s	847.69	Joback Method

Sources

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=U405227&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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