1,2-Dipalmitin

Other names: (±)-1-(hydroxymethyl)ethane-1,2-diyl dipalmitate
Inchi: InChI=1S/C35H68O5/c1-3-5-7-9-11-13-15-17-19-21-23-25-27-29-34(37)39-32-33(31-36)
InchiKey: JEJLGIQLPYYGEE-UHFFFAOYSA-N
Formula: C35H68O5
SMILES: CCCCCCCCCCCCCCCC(=O)OCC(CO)OC(=O)CCCCCCCCCCCCCCC
Mol. weight [g/mol]: 568.91
CAS: 40290-32-2

Physical Properties

Property code	Value	Unit	Source
gf	-363.28	kJ/mol	Joback Method
hf	-1412.84	kJ/mol	Joback Method
hfus	92.55	kJ/mol	Joback Method
hvap	128.11	kJ/mol	Joback Method
log10ws	-11.57		Crippen Method
logp	10.396		Crippen Method
mcvol	524.760	ml/mol	McGowan Method
pc	519.83	kPa	Joback Method
tb	1244.52	K	Joback Method
tc	1730.99	K	Joback Method
tf	674.35	K	Joback Method
vc	2.057	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1996.53	J/mol×K	1244.52	Joback Method
cpg	2025.42	J/mol×K	1325.60	Joback Method
cpg	2047.55	J/mol×K	1406.68	Joback Method
cpg	2063.85	J/mol×K	1487.76	Joback Method
cpg	2075.24	J/mol×K	1568.84	Joback Method
cpg	2082.63	J/mol×K	1649.92	Joback Method
cpg	2086.94	J/mol×K	1730.99	Joback Method
dvisc	0.0000259	Pa×s	674.35	Joback Method

dvisc	0.0000085	Pa×s	769.38	Joback Method
dvisc	0.0000035	Pa×s	864.41	Joback Method
dvisc	0.0000018	Pa×s	959.43	Joback Method
dvisc	0.0000010	Pa×s	1054.46	Joback Method
dvisc	0.0000006	Pa×s	1149.49	Joback Method
dvisc	0.0000004	Pa×s	1244.52	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C40290322&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume