Dotriacontan-2,4-dione

Inchi: InChI=1S/C32H62O2/c1-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-2
InchiKey: SXKODSLROOSVOX-UHFFFAOYSA-N
Formula: C32H62O2
SMILES: CCCCCCCCCCCCCCCCCCCCCCCCCCCCCC(=O)CC(C)=O
Mol. weight [g/mol]: 478.83

Physical Properties

Property code	Value	Unit	Source
gf	-39.28	kJ/mol	Joback Method
hf	-928.97	kJ/mol	Joback Method
hfus	81.83	kJ/mol	Joback Method
hvap	100.32	kJ/mol	Joback Method
log10ws	-11.78		Crippen Method
logp	11.087		Crippen Method
mcvol	464.880	ml/mol	McGowan Method
pc	576.74	kPa	Joback Method
rinpol	3539.80		NIST Webbook
rinpol	3539.80		NIST Webbook
tb	1039.30	K	Joback Method
tc	1308.88	K	Joback Method
tf	550.26	K	Joback Method
vc	1.839	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1674.18	J/mol×K	1039.30	Joback Method
cpg	1701.60	J/mol×K	1084.23	Joback Method
cpg	1726.85	J/mol×K	1129.16	Joback Method
cpg	1750.13	J/mol×K	1174.09	Joback Method
cpg	1771.62	J/mol×K	1219.02	Joback Method
cpg	1791.53	J/mol×K	1263.95	Joback Method
cpg	1810.03	J/mol×K	1308.88	Joback Method
dvisc	0.0004074	Pa×s	550.26	Joback Method

dvisc	0.0001665	Pa×s	631.77	Joback Method
dvisc	0.0000835	Pa×s	713.27	Joback Method
dvisc	0.0000482	Pa×s	794.78	Joback Method
dvisc	0.0000309	Pa×s	876.29	Joback Method
dvisc	0.0000213	Pa×s	957.79	Joback Method
dvisc	0.0000156	Pa×s	1039.30	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U414890&Units=SI

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