Pentacosane-2,4-dione

Inchi: InChI=1S/C25H48O2/c1-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-25(27)2
InchiKey: UQJHXCVWLZBJHE-UHFFFAOYSA-N
Formula: C25H48O2
SMILES: CCCCCCCCCCCCCCCCCCCCCCC(=O)CC(C)=O
Mol. weight [g/mol]: 380.65
CAS: 65351-32-8

Physical Properties

Property code	Value	Unit	Source
gf	-98.22	kJ/mol	Joback Method
hf	-784.49	kJ/mol	Joback Method
hfus	63.70	kJ/mol	Joback Method
hvap	84.74	kJ/mol	Joback Method
log10ws	-8.85		Crippen Method
logp	8.357		Crippen Method
mcvol	366.250	ml/mol	McGowan Method
pc	820.07	kPa	Joback Method
rinpol	2823.80		NIST Webbook
rinpol	2823.80		NIST Webbook
tb	879.14	K	Joback Method
tc	1076.77	K	Joback Method
tf	471.37	K	Joback Method
vc	1.448	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1215.41	J/mol×K	879.14	Joback Method
cpg	1236.55	J/mol×K	912.08	Joback Method
cpg	1256.47	J/mol×K	945.02	Joback Method
cpg	1275.22	J/mol×K	977.96	Joback Method
cpg	1292.86	J/mol×K	1010.89	Joback Method
cpg	1309.44	J/mol×K	1043.83	Joback Method
cpg	1325.03	J/mol×K	1076.77	Joback Method

dvisc	0.0010282	Pa×s	471.37	Joback Method
dvisc	0.0004421	Pa×s	539.33	Joback Method
dvisc	0.0002297	Pa×s	607.29	Joback Method
dvisc	0.0001361	Pa×s	675.25	Joback Method
dvisc	0.0000888	Pa×s	743.22	Joback Method
dvisc	0.0000622	Pa×s	811.18	Joback Method
dvisc	0.0000460	Pa×s	879.14	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=C65351328&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