Hentriacontane-10,12-dione

Inchi:	InChI=1S/C31H60O2/c1-3-5-7-9-11-12-13-14-15-16-17-18-19-20-22-24-26-28-31(33)29-
InchiKey:	NBLXICVHQZACHY-UHFFFAOYSA-N
Formula:	C31H60O2
SMILES:	CCCCCCCCCCCCCCCCCCCC(=O)CC(=O)CCCCCCCCC
Mol. weight [g/mol]:	464.81
CAS:	58141-95-0

Physical Properties

Property code	Value	Unit	Source
gf	-47.70	kJ/mol	Joback Method
hf	-908.33	kJ/mol	Joback Method
hfus	79.24	kJ/mol	Joback Method
hvap	98.09	kJ/mol	Joback Method
log10ws	-11.36		Crippen Method
logp	10.697		Crippen Method
mcvol	450.790	ml/mol	McGowan Method
pc	604.28	kPa	Joback Method
rinpol	3406.60		NIST Webbook
rinpol	3406.60		NIST Webbook
tb	1016.42	K	Joback Method
tc	1271.51	K	Joback Method
tf	538.99	K	Joback Method
vc	1.784	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1607.38	J/mol×K	1016.42	Joback Method
cpg	1720.40	J/mol×K	1228.99	Joback Method
cpg	1701.12	J/mol×K	1186.48	Joback Method
cpg	1680.34	J/mol×K	1143.96	Joback Method
cpg	1657.89	J/mol×K	1101.45	Joback Method
cpg	1633.62	J/mol×K	1058.93	Joback Method
cpg	1738.33	J/mol×K	1271.51	Joback Method

dvisc	0.0000183	Pa×s	1016.42	Joback Method
dvisc	0.0000249	Pa×s	936.85	Joback Method
dvisc	0.0000361	Pa×s	857.28	Joback Method
dvisc	0.0000562	Pa×s	777.70	Joback Method
dvisc	0.0000970	Pa×s	698.13	Joback Method
dvisc	0.0001927	Pa×s	618.56	Joback Method
dvisc	0.0004684	Pa×s	538.99	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C58141950&Units=SI
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

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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