Nonacosane-10,12-dione

Inchi: InChI=1S/C29H56O2/c1-3-5-7-9-11-12-13-14-15-16-17-18-20-22-24-26-29(31)27-28(30)25-23-21-19-10-8-6-4-2
InchiKey: AURUSSOGYWEKTO-UHFFFAOYSA-N
Formula: C29H56O2
SMILES: CCCCCCCCCCCCCCCCCC(=O)CC(=O)CCCCCCCCC
Mol. weight [g/mol]: 436.75

Physical Properties

Property code	Value	Unit	Source
gf	-64.54	kJ/mol	Joback Method
hf	-867.05	kJ/mol	Joback Method
hfus	74.06	kJ/mol	Joback Method
hvap	93.64	kJ/mol	Joback Method
log10ws	-10.52		Crippen Method
logp	9.917		Crippen Method
mcvol	422.610	ml/mol	McGowan Method
pc	665.63	kPa	Joback Method
rinpol	3192.80		NIST Webbook
rinpol	3192.80		NIST Webbook
tb	970.66	K	Joback Method
tc	1201.41	K	Joback Method
tf	516.45	K	Joback Method
vc	1.671	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1474.89	J/mol×K	970.66	Joback Method
cpg	1499.09	J/mol×K	1009.12	Joback Method
cpg	1521.63	J/mol×K	1047.58	Joback Method
cpg	1542.62	J/mol×K	1086.04	Joback Method
cpg	1562.17	J/mol×K	1124.49	Joback Method
cpg	1580.39	J/mol×K	1162.95	Joback Method
cpg	1597.38	J/mol×K	1201.41	Joback Method
dvisc	0.0006151	Pa×s	516.45	Joback Method

dvisc	0.0002565	Pa×s	592.15	Joback Method
dvisc	0.0001304	Pa×s	667.85	Joback Method
dvisc	0.0000761	Pa×s	743.56	Joback Method
dvisc	0.0000491	Pa×s	819.26	Joback Method
dvisc	0.0000341	Pa×s	894.96	Joback Method
dvisc	0.0000250	Pa×s	970.66	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=U414941&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

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