Nonanedioic acid, dihexyl ester

Other names:	Azelaic acid, dihexyl ester
	Dihexyl azelate
	Plastolein 9051 DHNZ
	di-n-Hexyl azelate
	DnHa
	Di-n-hexylester kyseliny azelaove
	Plastolein 9050
	Plastolein 9051
	Priplast 3013
	Nonanedioic acid, 1,9-dihexyl ester
Inchi:	InChI=1S/C21H40O4/c1-3-5-7-14-18-24-20(22)16-12-10-9-11-13-17-21(23)25-19-15-8-6
InchiKey:	MJOKHGMXPJXFTG-UHFFFAOYSA-N
Formula:	C21H40O4
SMILES:	CCCCCCOC(=O)CCCCCCCCC(=O)OCCCCCC
Mol. weight [g/mol]:	356.54
CAS:	109-31-9

Physical Properties

Property code	Value	Unit	Source
gf	-341.90	kJ/mol	Joback Method
hf	-966.37	kJ/mol	Joback Method
hfus	55.72	kJ/mol	Joback Method
hvap	80.65	kJ/mol	Joback Method
log10ws	-6.34		Crippen Method
logp	5.964		Crippen Method
mcvol	321.630	ml/mol	McGowan Method
pc	1012.95	kPa	Joback Method
rinpol	2416.00		NIST Webbook
tb	832.46	K	Joback Method
tc	1019.85	K	Joback Method
tf	470.75	K	Joback Method
vc	1.260	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1030.26	J/mol×K	832.46	Joback Method
cpg	1048.96	J/mol×K	863.69	Joback Method
cpg	1066.54	J/mol×K	894.92	Joback Method
cpg	1083.03	J/mol×K	926.15	Joback Method
cpg	1098.44	J/mol×K	957.39	Joback Method
cpg	1112.80	J/mol×K	988.62	Joback Method
cpg	1126.13	J/mol×K	1019.85	Joback Method
dvisc	0.0007511	Pa×s	470.75	Joback Method
dvisc	0.0003622	Pa×s	531.03	Joback Method
dvisc	0.0002027	Pa×s	591.32	Joback Method
dvisc	0.0001263	Pa×s	651.61	Joback Method
dvisc	0.0000852	Pa×s	711.89	Joback Method
dvisc	0.0000612	Pa×s	772.17	Joback Method
dvisc	0.0000461	Pa×s	832.46	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C109319&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