

Maleic acid, dioctadecyl ester

Other names:	dioctadecyl maleate
Inchi:	InChI=1S/C40H76O4/c1-3-5-7-9-11-13-15-17-19-21-23-25-27-29-31-33-37-43-39(41)35-
InchiKey:	XHSDDKAGJYJQM-KXYMVQBMSA-N
Formula:	C40H76O4
SMILES:	CCCCCCCCCCCCCCCCCCCCOC(=O)C=CC(=O)OCCCCCCCCCCCCCCCCCCC
Mol. weight [g/mol]:	621.03
CAS:	7516-70-3

Physical Properties

Property code	Value	Unit	Source
gf	-101.70	kJ/mol	Joback Method
hf	-1241.31	kJ/mol	Joback Method
hfus	105.13	kJ/mol	Joback Method
hvap	122.90	kJ/mol	Joback Method
log10ws	-14.14		Crippen Method
logp	13.152		Crippen Method
mcvol	585.040	ml/mol	McGowan Method
pc	414.12	kPa	Joback Method
tb	1271.34	K	Joback Method
tc	1785.53	K	Joback Method
tf	679.80	K	Joback Method
vc	2.304	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	2242.92	J/molxK	1271.34	Joback Method
cpg	2280.56	J/molxK	1357.04	Joback Method
cpg	2312.16	J/molxK	1442.74	Joback Method
cpg	2339.17	J/molxK	1528.43	Joback Method
cpg	2363.05	J/molxK	1614.13	Joback Method
cpg	2385.24	J/molxK	1699.83	Joback Method
cpg	2407.20	J/molxK	1785.53	Joback Method
dvisc	0.0000509	Paxs	679.80	Joback Method

dvisc	0.0000209	Paxs	778.39	Joback Method
dvisc	0.0000104	Paxs	876.98	Joback Method
dvisc	0.0000060	Paxs	975.57	Joback Method
dvisc	0.0000038	Paxs	1074.16	Joback Method
dvisc	0.0000026	Paxs	1172.75	Joback Method
dvisc	0.0000019	Paxs	1271.34	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7516703&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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