

Succinic acid, dodecyl 2-naphthylmethyl ester

Inchi:	InChI=1S/C27H38O4/c1-2-3-4-5-6-7-8-9-10-13-20-30-26(28)18-19-27(29)31-22-23-16-17
InchiKey:	BMRLDAZLCUQIRG-UHFFFAOYSA-N
Formula:	C27H38O4
SMILES:	CCCCCCCCCCCCOC(=O)CCC(=O)OCc1ccc2ccccc2c1
Mol. weight [g/mol]:	426.59

Physical Properties

Property code	Value	Unit	Source
gf	-81.95	kJ/mol	Joback Method
hf	-674.08	kJ/mol	Joback Method
hfus	61.93	kJ/mol	Joback Method
hvap	98.59	kJ/mol	Joback Method
log10ws	-8.58		Crippen Method
logp	7.127		Crippen Method
mvol	362.950	ml/mol	McGowan Method
pc	1003.35	kPa	Joback Method
rinpol	3328.00		NIST Webbook
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tb	1020.38	K	Joback Method
tc	1249.29	K	Joback Method
tf	610.01	K	Joback Method
vc	1.409	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1224.22	J/molxK	1020.38	Joback Method
cpg	1293.34	J/molxK	1211.14	Joback Method
cpg	1281.77	J/molxK	1172.99	Joback Method
cpg	1269.16	J/molxK	1134.83	Joback Method
cpg	1255.43	J/molxK	1096.68	Joback Method
cpg	1240.48	J/molxK	1058.53	Joback Method
cpg	1303.96	J/molxK	1249.29	Joback Method
dvisc	0.0000414	Paxs	1020.38	Joback Method

dvisc	0.0000521	Paxs	951.98	Joback Method
dvisc	0.0000680	Paxs	883.59	Joback Method
dvisc	0.0000928	Paxs	815.19	Joback Method
dvisc	0.0001341	Paxs	746.80	Joback Method
dvisc	0.0002086	Paxs	678.40	Joback Method
dvisc	0.0003583	Paxs	610.01	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U389991&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
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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