Succinic acid, 2-methylpent-3-yl 2-naphthyl ester

Inchi: InChI=1S/C20H24O4/c1-4-18(14(2)3)24-20(22)12-11-19(21)23-17-10-9-15-7-5-6-8-16(15

InchiKey: KDNYMUFUUMWYQH-UHFFFAOYSA-N

Formula: C20H24O4

SMILES: CCC(OC(=O)CCC(=O)Oc1ccc2ccccc2c1)C(C)C

Mol. weight [g/mol]: 328.40

Physical Properties

Property code	Value	Unit	Source
gf	-145.77	kJ/mol	Joback Method
hf	-540.16	kJ/mol	Joback Method
hfus	36.75	kJ/mol	Joback Method
hvap	82.23	kJ/mol	Joback Method
log10ws	-5.67		Crippen Method
logp	4.503		Crippen Method
mcvol	264.320	ml/mol	McGowan Method
pc	1640.43	kPa	Joback Method
rinpol	2590.00		NIST Webbook
rinpol	2590.00		NIST Webbook
tb	859.34	K	Joback Method
tc	1078.24	K	Joback Method
tf	501.12	K	Joback Method
vc	1.006	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	803.93	J/mol×K	859.34	Joback Method
cpg	818.74	J/mol×K	895.82	Joback Method
cpg	832.40	J/mol×K	932.31	Joback Method
cpg	844.98	J/mol×K	968.79	Joback Method
cpg	856.52	J/mol×K	1005.28	Joback Method
cpg	867.07	J/mol×K	1041.76	Joback Method
cpg	876.70	J/mol×K	1078.24	Joback Method
dvisc	0.0008512	Pa×s	501.12	Joback Method

dvisc	0.0004806	Pa×s	560.82	Joback Method
dvisc	0.0003029	Pa×s	620.53	Joback Method
dvisc	0.0002070	Pa×s	680.23	Joback Method
dvisc	0.0001505	Pa×s	739.93	Joback Method
dvisc	0.0001147	Pa×s	799.64	Joback Method
dvisc	0.0000908	Pa×s	859.34	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U389835&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
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

Latest version available from:
https://www.chemeo.com/cid/87-330-9/Succinic-acid-2-methylpent-3-yl-2-naphthyl-ester.pdf
Generated by Cheméo on 2024-10-12 07:45:15.419330217 +0000 UTC m=+3299978.056299466.
Cheméo (https://www.chemeo.com) is the biggest free database of chemical and physical data for the process industry.