Succinic acid, di-(-)-menthyl ester

Other names: (-)-Dimenthyl succinate
Bis((1R,2S,5R)-2-isopropyl-5-methylcyclohexyl) succinate
Dimenthyl succinate
(-)-Dimethyl succinate
Inchi: InChI=1S/C24H42O4/c1-15(2)19-9-7-17(5)13-21(19)27-23(25)11-12-24(26)28-22-14-18(
InchiKey: YZXZAUAIVAZWFN-UHFFFAOYSA-N
Formula: C24H42O4
SMILES: CC1CCC(C(C)C)C(OC(=O)CCC(=O)OC2CC(C)CCC2C(C)C)C1
Mol. weight [g/mol]: 394.59
CAS: 34212-59-4

Physical Properties

Property code	Value	Unit	Source
gf	-303.46	kJ/mol	Joback Method
hf	-1011.57	kJ/mol	Joback Method
hfus	44.40	kJ/mol	Joback Method
hvap	86.18	kJ/mol	Joback Method
log10ws	-6.16		Crippen Method
logp	5.775		Crippen Method
mcvol	342.180	ml/mol	McGowan Method
pc	1016.83	kPa	Joback Method
tb	920.64	K	Joback Method
tc	1137.06	K	Joback Method
tf	472.36	K	Joback Method
vc	1.278	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1228.01	J/mol×K	920.64	Joback Method
cpg	1248.56	J/mol×K	956.71	Joback Method
cpg	1266.98	J/mol×K	992.78	Joback Method
cpg	1283.28	J/mol×K	1028.85	Joback Method
cpg	1297.48	J/mol×K	1064.92	Joback Method

cpg	1309.59	J/mol×K	1100.99	Joback Method
cpg	1319.62	J/mol×K	1137.06	Joback Method
dvisc	0.0011986	Pa×s	472.36	Joback Method
dvisc	0.0005587	Pa×s	547.07	Joback Method
dvisc	0.0003128	Pa×s	621.79	Joback Method
dvisc	0.0001984	Pa×s	696.50	Joback Method
dvisc	0.0001374	Pa×s	771.21	Joback Method
dvisc	0.0001015	Pa×s	845.93	Joback Method
dvisc	0.0000788	Pa×s	920.64	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	475.70	K	0.30	NIST Webbook

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=C34212594&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

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