DIISOPROPYL SUCCINATE

Other names:	Diisopropyl butanedioate
	bis(1-methylethyl) butanedioate
	butanedioic acid, bis(1-methylethyl) ester
	succinic acid, diisopropyl ester
Inchi:	InChI=1S/C10H18O4/c1-7(2)13-9(11)5-6-10(12)14-8(3)4/h7-8H,5-6H2,1-4H3
InchiKey:	YPLYFEUBZLLLIY-UHFFFAOYSA-N
Formula:	C10H18O4
SMILES:	CC(C)OC(=O)CCC(=O)OC(C)C
Mol. weight [g/mol]:	202.25

Physical Properties

Property code	Value	Unit	Source
hf	-912.02	kJ/mol	Cheméo Relay (1.0)
hfus	65.55	kJ/mol	Vapour pressure and enthalpy of vaporization of di-iso-propyl and di-tert-butyl esters of dicarboxylic acids
hfus	64.69	kJ/mol	Vapour pressure and enthalpy of vaporization of di-iso-propyl and di-tert-butyl esters of dicarboxylic acids
hfus	66.95	kJ/mol	Vapour pressure and enthalpy of vaporization of di-iso-propyl and di-tert-butyl esters of dicarboxylic acids
hfus	66.63	kJ/mol	Vapour pressure and enthalpy of vaporization of di-iso-propyl and di-tert-butyl esters of dicarboxylic acids
hfus	66.31	kJ/mol	Vapour pressure and enthalpy of vaporization of di-iso-propyl and di-tert-butyl esters of dicarboxylic acids
hfus	66.08	kJ/mol	Vapour pressure and enthalpy of vaporization of di-iso-propyl and di-tert-butyl esters of dicarboxylic acids

hfus	67.28	kJ/mol	Vapour pressure and enthalpy of vaporization of di-iso-propyl and di-tert-butyl esters of dicarboxylic acids
hfus	65.23	kJ/mol	Vapour pressure and enthalpy of vaporization of di-iso-propyl and di-tert-butyl esters of dicarboxylic acids
hfus	65.77	kJ/mol	Vapour pressure and enthalpy of vaporization of di-iso-propyl and di-tert-butyl esters of dicarboxylic acids
hfus	65.00	kJ/mol	Vapour pressure and enthalpy of vaporization of di-iso-propyl and di-tert-butyl esters of dicarboxylic acids
hfus	67.60	kJ/mol	Vapour pressure and enthalpy of vaporization of di-iso-propyl and di-tert-butyl esters of dicarboxylic acids
hfus	64.48	kJ/mol	Vapour pressure and enthalpy of vaporization of di-iso-propyl and di-tert-butyl esters of dicarboxylic acids
hvap	63.50	kJ/mol	Cheméo Relay (1.0)
ie	9.77	eV	Cheméo Relay (1.0)
log10ws	-2.07		Cheméo Relay (1.0)
logp	1.670		Crippen Method
mcvol	166.640	ml/mol	McGowan Method
pc	2333.78	kPa	Joback Method
rinpol	1226.00		NIST Webbook
rinpol	1225.00		NIST Webbook
rinpol	1223.00		NIST Webbook
rinpol	1220.00		NIST Webbook
rinpol	1225.00		NIST Webbook
rinpol	1225.00		NIST Webbook
rinpol	1226.00		NIST Webbook
tb	466.24	K	Cheméo Relay (1.0)
tc	648.48	K	Cheméo Relay (1.0)
tf	282.44	K	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	416.45	J/mol×K	579.90	Joback Method
cpg	430.24	J/mol×K	611.04	Joback Method
cpg	443.43	J/mol×K	642.17	Joback Method
cpg	456.03	J/mol×K	673.31	Joback Method
cpg	468.03	J/mol×K	704.45	Joback Method
cpg	479.43	J/mol×K	735.58	Joback Method
cpg	490.22	J/mol×K	766.72	Joback Method
dvisc	0.0031886	Pa×s	316.78	Joback Method
dvisc	0.0014437	Pa×s	360.63	Joback Method
dvisc	0.0007762	Pa×s	404.49	Joback Method
dvisc	0.0004712	Pa×s	448.34	Joback Method
dvisc	0.0003126	Pa×s	492.19	Joback Method
dvisc	0.0002218	Pa×s	536.05	Joback Method
dvisc	0.0001658	Pa×s	579.90	Joback Method

Sources

Cheméo Relay (1.0):

Cheméo Relay (1.0, beta):

Vapour pressure and enthalpy of vaporization of di-iso-propyl and di-tert-butyl esters of dicarboxylic acids: https://www.doi.org/10.1016/j.fluid.2011.07.007

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C924889&Units=SI

Joback Method: https://en.wikipedia.org/wiki/Joback_method

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

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
hf: Enthalpy of formation at standard conditions
hfus: Enthalpy of fusion at standard conditions
hvap: Enthalpy of vaporization at standard conditions
ie: Ionization energy
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