

Octanedioic acid, dibutyl ester

Other names:	Suberic acid, dibutyl ester Dibutyl suberate
Inchi:	InChI=1S/C16H30O4/c1-3-5-13-19-15(17)11-9-7-8-10-12-16(18)20-14-6-4-2/h3-14H2,1-15H
InchiKey:	LBXQUCHUHCBNTC-UHFFFAOYSA-N
Formula:	C16H30O4
SMILES:	CCCCOC(=O)CCCCCCC(=O)OCCCC
Mol. weight [g/mol]:	286.41
CAS:	16090-77-0

Physical Properties

Property code	Value	Unit	Source
gf	-384.00	kJ/mol	Joback Method
hf	-863.17	kJ/mol	Joback Method
hfus	42.77	kJ/mol	Joback Method
hvap	69.52	kJ/mol	Joback Method
log10ws	-4.25		Crippen Method
logp	4.014		Crippen Method
mvol	251.180	ml/mol	McGowan Method
pc	1411.18	kPa	Joback Method
rinpol	1930.00		NIST Webbook
tb	718.06	K	Joback Method
tc	894.33	K	Joback Method
tf	414.40	K	Joback Method
vc	0.980	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	733.60	J/molxK	718.06	Joback Method
cpg	808.37	J/molxK	864.95	Joback Method
cpg	795.02	J/molxK	835.57	Joback Method
cpg	780.87	J/molxK	806.19	Joback Method
cpg	765.92	J/molxK	776.82	Joback Method
cpg	750.17	J/molxK	747.44	Joback Method

cpg	820.95	J/molxK	894.33	Joback Method
dvisc	0.0000927	Paxs	718.06	Joback Method
dvisc	0.0001214	Paxs	667.45	Joback Method
dvisc	0.0001661	Paxs	616.84	Joback Method
dvisc	0.0002405	Paxs	566.23	Joback Method
dvisc	0.0003744	Paxs	515.62	Joback Method
dvisc	0.0006418	Paxs	465.01	Joback Method
dvisc	0.0012551	Paxs	414.40	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	448.70	K	0.50	NIST Webbook

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C16090770&Units=SI

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
rinpola:	Non-polar retention indices

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

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