

Dibutyl 2-butenedioate, cis

Inchi:	InChI=1S/C14H24O4/c1-3-5-11-17-13(15)9-7-8-10-14(16)18-12-6-4-2/h7-8H,3-6,9-12H2
InchiKey:	CAAPKMYFEZDEPA-FPLPWBNSA-N
Formula:	C14H24O4
SMILES:	CCCCOC(=O)CC=CCC(=O)OCCCC
Mol. weight [g/mol]:	256.34

Physical Properties

Property code	Value	Unit	Source
gf	-320.62	kJ/mol	Joback Method
hf	-704.67	kJ/mol	Joback Method
hfus	37.79	kJ/mol	Joback Method
hvap	65.03	kJ/mol	Joback Method
log10ws	-3.26		Crippen Method
logp	3.009		Crippen Method
mvol	218.700	ml/mol	McGowan Method
pc	1710.36	kPa	Joback Method
rinpol	1516.00		NIST Webbook
rinpol	1505.00		NIST Webbook
tb	676.46	K	Joback Method
tc	857.71	K	Joback Method
tf	386.78	K	Joback Method
vc	0.848	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	600.12	J/molxK	676.46	Joback Method
cpg	615.28	J/molxK	706.67	Joback Method
cpg	629.69	J/molxK	736.88	Joback Method
cpg	643.39	J/molxK	767.08	Joback Method
cpg	656.37	J/molxK	797.29	Joback Method
cpg	668.66	J/molxK	827.50	Joback Method
cpg	680.26	J/molxK	857.71	Joback Method
dvisc	0.0013772	Paxs	386.78	Joback Method

dvisc	0.0007034	Paxs	435.06	Joback Method
dvisc	0.0004109	Paxs	483.34	Joback Method
dvisc	0.0002647	Paxs	531.62	Joback Method
dvisc	0.0001834	Paxs	579.90	Joback Method
dvisc	0.0001345	Paxs	628.18	Joback Method
dvisc	0.0001031	Paxs	676.46	Joback Method

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=R576731&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

cp_g:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
g_f:	Standard Gibbs free energy of formation
h_f:	Enthalpy of formation at standard conditions
h_{fus}:	Enthalpy of fusion at standard conditions
h_{vap}:	Enthalpy of vaporization at standard conditions
log₁₀ws:	Log ₁₀ of Water solubility in mol/l
log_p:	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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