

Ethanol, 2,2'-oxybis-, dipropanoate

Other names:	Diethylene glycol, dipropionate 2,2'-oxybisethyl dipropionate
Inchi:	InChI=1S/C10H18O5/c1-3-9(11)14-7-5-13-6-8-15-10(12)4-2/h3-8H2,1-2H3
InchiKey:	YMMVCTFOVNOGFQ-UHFFFAOYSA-N
Formula:	C10H18O5
SMILES:	CCC(=O)OCCOCCOC(=O)CC
Mol. weight [g/mol]:	218.25
CAS:	6942-59-2

Physical Properties

Property code	Value	Unit	Source
gf	-539.52	kJ/mol	Joback Method
hf	-871.55	kJ/mol	Joback Method
hfus	28.42	kJ/mol	Joback Method
hvap	58.58	kJ/mol	Joback Method
log10ws	-0.82		Crippen Method
logp	0.909		Crippen Method
mvol	172.510	ml/mol	McGowan Method
pc	2261.11	kPa	Joback Method
tb	603.20	K	Joback Method
tc	782.57	K	Joback Method
tf	369.01	K	Joback Method
vc	0.661	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	441.33	J/molxK	603.20	Joback Method
cpg	501.38	J/molxK	752.67	Joback Method
cpg	490.46	J/molxK	722.78	Joback Method
cpg	478.98	J/molxK	692.88	Joback Method
cpg	466.96	J/molxK	662.99	Joback Method
cpg	454.41	J/molxK	633.09	Joback Method
cpg	511.73	J/molxK	782.57	Joback Method

dvisc	0.0001497	Paxs	603.20	Joback Method
dvisc	0.0001906	Paxs	564.17	Joback Method
dvisc	0.0002518	Paxs	525.14	Joback Method
dvisc	0.0003476	Paxs	486.11	Joback Method
dvisc	0.0005079	Paxs	447.07	Joback Method
dvisc	0.0007978	Paxs	408.04	Joback Method
dvisc	0.0013789	Paxs	369.01	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=C6942592&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
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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