

1,4-Butylene glycol dimethacrylate

Other names:	Tetramethylene dimethacrylate 1,4-Butylene dimethacrylate 1,4-Butanediol dimethacrylate 2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester
Inchi:	InChI=1S/C12H18O4/c1-9(2)11(13)15-7-5-6-8-16-12(14)10(3)4/h1,3,5-8H2,2,4H3
InchiKey:	XOJWAAUYNWGQAU-UHFFFAOYSA-N
Formula:	C12H18O4
SMILES:	C=C(C)C(=O)OCCCCOC(=O)C(=C)C
Mol. weight [g/mol]:	226.27
CAS:	2082-81-7

Physical Properties

Property code	Value	Unit	Source
gf	-259.10	kJ/mol	Joback Method
hf	-549.33	kJ/mol	Joback Method
hfus	27.23	kJ/mol	Joback Method
hvap	59.44	kJ/mol	Joback Method
log10ws	-2.28		Crippen Method
logp	2.005		Crippen Method
mcvol	186.220	ml/mol	McGowan Method
pc	2096.50	kPa	Joback Method
tb	619.66	K	Joback Method
tc	807.87	K	Joback Method
tf	337.88	K	Joback Method
vc	0.720	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	471.99	J/mol×K	619.66	Joback Method
cpg	485.75	J/mol×K	651.03	Joback Method
cpg	498.85	J/mol×K	682.40	Joback Method
cpg	511.30	J/mol×K	713.76	Joback Method
cpg	523.09	J/mol×K	745.13	Joback Method

cpg	534.25	J/mol×K	776.50	Joback Method
cpg	544.77	J/mol×K	807.87	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2082817&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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

Legend

cpg:	Ideal gas heat capacity
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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