

# Fumaric acid, 2-ethylbutyl but-3-yn-2-yl ester

<b>Inchi:</b>	InChI=1S/C14H20O4/c1-5-11(4)18-14(16)9-8-13(15)17-10-12(6-2)7-3/h1,8-9,11-12H,6-7
<b>InchiKey:</b>	DNKIKGCRSROOPG-CMDGGGOBGSA-N
<b>Formula:</b>	C14H20O4
<b>SMILES:</b>	C#CC(C)OC(=O)C=CC(=O)OCC(CC)CC
<b>Mol. weight [g/mol]:</b>	252.31

## Physical Properties

Property code	Value	Unit	Source
gf	-102.43	kJ/mol	Joback Method
hf	-423.33	kJ/mol	Joback Method
hfus	33.72	kJ/mol	Joback Method
hvap	64.11	kJ/mol	Joback Method
log10ws	-2.93		Crippen Method
logp	2.087		Crippen Method
mvol	210.100	ml/mol	McGowan Method
pc	1968.30	kPa	Joback Method
rinpol	1656.00		NIST Webbook
rinpol	1656.00		NIST Webbook
tb	665.70	K	Joback Method
tc	861.80	K	Joback Method
tf	403.75	K	Joback Method
vc	0.797	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	554.42	J/mol×K	665.70	Joback Method
cpg	569.07	J/mol×K	698.38	Joback Method
cpg	582.94	J/mol×K	731.07	Joback Method
cpg	596.03	J/mol×K	763.75	Joback Method
cpg	608.37	J/mol×K	796.43	Joback Method
cpg	619.97	J/mol×K	829.12	Joback Method
cpg	630.86	J/mol×K	861.80	Joback Method

# Sources

<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U405631&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U405631&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307I">http://pubs.acs.org/doi/abs/10.1021/ci990307I</a>

# Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>rinpola:</b>	Non-polar retention indices
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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