

# Glutaric acid, 2,2,3,3,4,4,5,5-octafluoropentyl 2,2,3,3-tetrafluoropropyl ester

**Inchi:** InChI=1S/C13H12F12O4/c14-8(15)10(18,19)4-28-6(26)2-1-3-7(27)29-5-11(20,21)13(24,25)12  
**InchiKey:** ASXLPRQPSLOJCF-UHFFFAOYSA-N  
**Formula:** C13H12F12O4  
**SMILES:** O=C(CCCC(=O)OCC(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)OCC(F)(F)C(F)F  
**Mol. weight [g/mol]:** 460.21

## Physical Properties

Property code	Value	Unit	Source
gf	-2740.50	kJ/mol	Joback Method
hf	-3200.13	kJ/mol	Joback Method
hfus	35.26	kJ/mol	Joback Method
hvap	47.08	kJ/mol	Joback Method
log10ws	-4.87		Crippen Method
logp	4.315		Crippen Method
mcvol	230.150	ml/mol	McGowan Method
pc	1255.70	kPa	Joback Method
rinpola	1392.00		NIST Webbook
rinpola	1392.00		NIST Webbook
tb	626.86	K	Joback Method
tc	774.40	K	Joback Method
tf	367.35	K	Joback Method
vc	0.972	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	676.99	J/molxK	626.86	Joback Method
cpg	688.93	J/molxK	651.45	Joback Method
cpg	700.16	J/molxK	676.04	Joback Method
cpg	710.71	J/molxK	700.63	Joback Method
cpg	720.61	J/molxK	725.22	Joback Method
cpg	729.89	J/molxK	749.81	Joback Method
cpg	738.59	J/molxK	774.40	Joback Method

# Sources

<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=U393659&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U393659&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>
<b>Crippen Method:</b>	<a href="https://www.cheméo.com/doc/models/crippen_log10ws">https://www.cheméo.com/doc/models/crippen_log10ws</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>h vap:</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>r in pol:</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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