

# Adipic acid, 2,2,3,3,4,4,5,5-octafluoropentyl tetradecyl ester

**Inchi:** InChI=1S/C25H40F8O4/c1-2-3-4-5-6-7-8-9-10-11-12-15-18-36-20(34)16-13-14-17-21(35)  
**InchiKey:** XKJPDYGNWGNIT-UHFFFAOYSA-N  
**Formula:** C25H40F8O4  
**SMILES:** CCCCCCCCCCCCCOC(=O)CCCC(=O)OCC(F)(F)C(F)(F)C(F)(F)C(F)F  
**Mol. weight [g/mol]:** 556.57

## Physical Properties

Property code	Value	Unit	Source
gf	-1860.62	kJ/mol	Joback Method
hf	-2649.34	kJ/mol	Joback Method
hfus	64.95	kJ/mol	Joback Method
hvap	78.74	kJ/mol	Joback Method
log10ws	-9.27		Crippen Method
logp	8.505		Crippen Method
mcvol	392.150	ml/mol	McGowan Method
pc	684.93	kPa	Joback Method
rinpol	2594.00		NIST Webbook
tb	908.01	K	Joback Method
tc	1127.37	K	Joback Method
tf	512.81	K	Joback Method
vc	1.589	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1337.48	J/molxK	908.01	Joback Method
cpg	1357.70	J/molxK	944.57	Joback Method
cpg	1376.48	J/molxK	981.13	Joback Method
cpg	1393.94	J/molxK	1017.69	Joback Method
cpg	1410.20	J/molxK	1054.25	Joback Method
cpg	1425.38	J/molxK	1090.81	Joback Method
cpg	1439.60	J/molxK	1127.37	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=U353739&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U353739&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.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.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>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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