

# (Z)-1,3-Tridecadiene-5,7,9,11-tetrayne

**Inchi:** InChI=1S/C13H8/c1-3-5-7-9-11-13-12-10-8-6-4-2/h3,5,7H,1H2,2H3/b7-5-  
**InchiKey:** PXQLZFYDZKYLPY-ALCCZGGFSA-N  
**Formula:** C13H8  
**SMILES:** C=CC=CC#CC#CC#CC#CC  
**Mol. weight [g/mol]:** 164.20

## Physical Properties

Property code	Value	Unit	Source
gf	1037.84	kJ/mol	Joback Method
hf	1020.20	kJ/mol	Joback Method
hfus	40.84	kJ/mol	Joback Method
hvap	52.43	kJ/mol	Joback Method
log10ws	-4.15		Crippen Method
logp	1.762		Crippen Method
mcvol	151.030	ml/mol	McGowan Method
pc	3333.53	kPa	Joback Method
rinpol	1727.00		NIST Webbook
rinpol	1727.00		NIST Webbook
ripol	2300.00		NIST Webbook
tb	533.68	K	Joback Method
tc	814.93	K	Joback Method
tf	653.83	K	Joback Method
vc	0.573	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	284.30	J/molxK	533.68	Joback Method
cpg	297.69	J/molxK	580.55	Joback Method
cpg	310.18	J/molxK	627.43	Joback Method
cpg	321.85	J/molxK	674.30	Joback Method
cpg	332.76	J/molxK	721.18	Joback Method
cpg	343.00	J/molxK	768.05	Joback Method
cpg	352.65	J/molxK	814.93	Joback Method

# Sources

<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=R54755&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R54755&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>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</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>rinpolar:</b>	Non-polar retention indices
<b>ripolar:</b>	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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