

# 2-Tricosanone

**Inchi:** InChI=1S/C23H46O/c1-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23(2)24/  
**InchiKey:** HMGahrPPRPQDAS-UHFFFAOYSA-N  
**Formula:** C23H46O  
**SMILES:** CCCCCCCCCCCCCCCCCCCCCC(C)=O  
**Mol. weight [g/mol]:** 338.61  
**CAS:** ---

## Physical Properties

Property code	Value	Unit	Source
gf	13.86	kJ/mol	Joback Method
hf	-630.63	kJ/mol	Joback Method
hfus	56.92	kJ/mol	Joback Method
hvap	73.54	kJ/mol	Joback Method
log10ws	-8.73		Crippen Method
logp	8.397		Crippen Method
mvol	336.500	ml/mol	McGowan Method
pc	884.19	kPa	Joback Method
rinpol	2513.00		NIST Webbook
rinpol	402.17		NIST Webbook
tb	779.51	K	Joback Method
tc	956.06	K	Joback Method
tf	398.90	K	Joback Method
vc	1.329	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1059.34	J/molxK	779.51	Joback Method
cpg	1080.54	J/molxK	808.93	Joback Method
cpg	1100.72	J/molxK	838.36	Joback Method
cpg	1119.90	J/molxK	867.78	Joback Method
cpg	1138.14	J/molxK	897.21	Joback Method
cpg	1155.46	J/molxK	926.63	Joback Method
cpg	1171.91	J/molxK	956.06	Joback Method

dvisc	0.0017989	Paxs	398.90	Joback Method
dvisc	0.0007053	Paxs	462.33	Joback Method
dvisc	0.0003466	Paxs	525.77	Joback Method
dvisc	0.0001985	Paxs	589.20	Joback Method
dvisc	0.0001267	Paxs	652.64	Joback Method
dvisc	0.0000875	Paxs	716.08	Joback Method
dvisc	0.0000642	Paxs	779.51	Joback Method

## Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.50666e+01
Coeff. B	-5.70300e+03
Coeff. C	-1.27035e+02
Temperature range (K), min.	512.92
Temperature range (K), max.	711.65

## 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=R84922&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R84922&amp;Units=SI</a>
<b>The Yaws Handbook of Vapor Pressure:</b>	<a href="https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure">https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>

## Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>dvisc:</b>	Dynamic viscosity
<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<sub>vap</sub>:</b>	Enthalpy of vaporization at standard conditions
<b>log<sub>10</sub>w<sub>s</sub>:</b>	Log <sub>10</sub> of Water solubility in mol/l
<b>log<sub>p</sub>:</b>	Octanol/Water partition coefficient
<b>m<sub>cvol</sub>:</b>	McGowan's characteristic volume
<b>p<sub>c</sub>:</b>	Critical Pressure
<b>p<sub>vap</sub>:</b>	Vapor pressure
<b>r<sub>inpol</sub>:</b>	Non-polar retention indices
<b>t<sub>b</sub>:</b>	Normal Boiling Point Temperature
<b>t<sub>c</sub>:</b>	Critical Temperature
<b>t<sub>f</sub>:</b>	Normal melting (fusion) point
<b>v<sub>c</sub>:</b>	Critical Volume

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