

# Docosane, 7-butyl-

<b>Other names:</b>	7-Butyldocosane 7-n-Butyldocosane
<b>Inchi:</b>	InChI=1S/C26H54/c1-4-7-10-12-13-14-15-16-17-18-19-20-22-25-26(23-9-6-3)24-21-11-8
<b>InchiKey:</b>	MXLQPYBSANDXKT-UHFFFAOYSA-N
<b>Formula:</b>	C26H54
<b>SMILES:</b>	CCCCCCCCCCCCCCCC(CCCC)CCCCC
<b>Mol. weight [g/mol]:</b>	366.71
<b>CAS:</b>	55282-15-0

## Physical Properties

Property code	Value	Unit	Source
gf	165.60	kJ/mol	Joback Method
hf	-585.25	kJ/mol	Joback Method
hfus	59.57	kJ/mol	Joback Method
hvap	73.08	kJ/mol	Joback Method
log10ws	-10.46		Crippen Method
logp	10.244		Crippen Method
mvol	377.200	ml/mol	McGowan Method
pc	728.10	kPa	Joback Method
tb	793.84	K	Joback Method
tc	971.96	K	Joback Method
tf	276.40 ± 0.50	K	NIST Webbook
tf	276.35	K	NIST Webbook
vc	1.486	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1216.69	J/mol×K	793.84	Joback Method
cpg	1240.72	J/mol×K	823.53	Joback Method
cpg	1263.59	J/mol×K	853.21	Joback Method
cpg	1285.35	J/mol×K	882.90	Joback Method
cpg	1306.05	J/mol×K	912.59	Joback Method
cpg	1325.72	J/mol×K	942.27	Joback Method

cpg	1344.42	J/molxK	971.96	Joback Method
dvisc	0.0023771	Paxs	367.78	Joback Method
dvisc	0.0006945	Paxs	438.79	Joback Method
dvisc	0.0002858	Paxs	509.80	Joback Method
dvisc	0.0001462	Paxs	580.81	Joback Method
dvisc	0.0000865	Paxs	651.82	Joback Method
dvisc	0.0000568	Paxs	722.83	Joback Method
dvisc	0.0000402	Paxs	793.84	Joback Method
hvapt	97.20	kJ/mol	497.00	NIST Webbook

## Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.68219e+01
Coeff. B	-6.55756e+03
Coeff. C	-1.31677e+02
Temperature range (K), min.	528.28
Temperature range (K), max.	701.38

## Sources

<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C55282150&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C55282150&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>
<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>

## 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>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>hvapt:</b>	Enthalpy of vaporization at a given temperature
<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>pvap:</b>	Vapor pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

Latest version available from:

<https://www.cheméo.com/cid/45-384-6/Docosane-7-butyl.pdf>

Generated by Cheméo on 2024-04-25 18:49:50.087009757 +0000 UTC m=+16360239.007587069.

Cheméo (<https://www.cheméo.com>) is the biggest free database of chemical and physical data for the process industry.