

# Tetradecane, 1-bromo-

<b>Other names:</b>	1-Bromotetradecane 1-Tetradecyl bromide Myristyl bromide Tetradecyl bromide n-Tetradecyl bromide n-Tetradecyl-1-bromide
<b>Inchi:</b>	InChI=1S/C14H29Br/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15/h2-14H2,1H3
<b>InchiKey:</b>	KOFZTCSTGIWCQG-UHFFFAOYSA-N
<b>Formula:</b>	C14H29Br
<b>SMILES:</b>	CCCCCCCCCCCCCBr
<b>Mol. weight [g/mol]:</b>	277.28
<b>CAS:</b>	112-71-0

## Physical Properties

Property code	Value	Unit	Source
gf	81.32	kJ/mol	Joback Method
hf	-305.96	kJ/mol	Joback Method
hfus	37.30	kJ/mol	Joback Method
hvap	53.19	kJ/mol	Joback Method
log10ws	-6.11		Crippen Method
logp	6.082		Crippen Method
mcvol	225.620	ml/mol	McGowan Method
pc	1609.00	kPa	Joback Method
rinpol	1753.00		NIST Webbook
rinpol	1758.00		NIST Webbook
rinpol	1758.00		NIST Webbook
ripol	2037.00		NIST Webbook
ripol	2007.00		NIST Webbook
ripol	2013.00		NIST Webbook
tb	580.20	K	NIST Webbook
tc	757.97	K	Joback Method
tf	307.34	K	Joback Method
vc	0.881	m3/kmol	Joback Method

# Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	655.92	J/molxK	757.97	Joback Method
cpg	579.91	J/molxK	614.56	Joback Method
cpg	596.52	J/molxK	643.24	Joback Method
cpg	612.39	J/molxK	671.93	Joback Method
cpg	627.57	J/molxK	700.61	Joback Method
cpg	642.07	J/molxK	729.29	Joback Method
cpg	562.54	J/molxK	585.88	Joback Method
dvisc	0.0002308	Paxs	539.46	Joback Method
dvisc	0.0003223	Paxs	493.03	Joback Method
dvisc	0.0004825	Paxs	446.61	Joback Method
dvisc	0.0007931	Paxs	400.19	Joback Method
dvisc	0.0014854	Paxs	353.76	Joback Method
dvisc	0.0001743	Paxs	585.88	Joback Method
dvisc	0.0033625	Paxs	307.34	Joback Method
hvapt	67.10	kJ/mol	541.00	NIST Webbook
rho1	987.40	kg/m3	328.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rho1	979.10	kg/m3	338.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rho1	974.90	kg/m3	343.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rho1	970.80	kg/m3	348.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes

rho1	966.60	kg/m3	353.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rho1	991.60	kg/m3	323.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rho1	958.20	kg/m3	363.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rho1	954.00	kg/m3	368.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rho1	949.80	kg/m3	373.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rho1	945.60	kg/m3	378.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rho1	941.30	kg/m3	383.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rho1	937.10	kg/m3	388.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rho1	932.90	kg/m3	393.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes

rhoI	928.60	kg/m3	398.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rhoI	924.40	kg/m3	403.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rhoI	920.10	kg/m3	408.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rhoI	915.90	kg/m3	413.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rhoI	911.60	kg/m3	418.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rhoI	907.40	kg/m3	423.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rhoI	995.70	kg/m3	318.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rhoI	999.80	kg/m3	313.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes

rhoI	1003.90	kg/m3	308.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rhoI	1008.10	kg/m3	303.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rhoI	1012.20	kg/m3	298.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rhoI	983.30	kg/m3	333.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes
rhoI	962.40	kg/m3	358.15	Isobaric heat capacity, isothermal compressibility and fluctuational properties of 1-bromoalkanes

## Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	449.70	K	2.70	NIST Webbook
tbrp	448.00	K	2.70	NIST Webbook

## Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.54925e+01

Coeff. B	-5.19535e+03
Coeff. C	-1.02432e+02
Temperature range (K), min.	444.12
Temperature range (K), max.	612.73

## Sources

<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>Isobaric heat capacity, isothermal compressibility and fluctuational properties of bromoalkanes:</b>	<a href="https://www.doi.org/10.1007/s10765-016-2064-y">https://www.doi.org/10.1007/s10765-016-2064-y</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=C112710&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C112710&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>

## 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>rho:</b>	Liquid Density
<b>rinpol:</b>	Non-polar retention indices
<b>ripol:</b>	Polar retention indices
<b>tb:</b>	Normal Boiling Point Temperature
<b>tbrp:</b>	Boiling point at reduced pressure
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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