

1-chlorotetracosane

Inchi:	InChI=1S/C24H49Cl/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24
InchiKey:	SUSHJBUUCQMSOK-UHFFFAOYSA-N
Formula:	C24H49Cl
SMILES:	CCCCCCCCCCCCCCCCCCCCCCCCCI
Mol. weight [g/mol]:	373.10
CAS:	6422-18-0

Physical Properties

Property code	Value	Unit	Source
gf	139.27	kJ/mol	Joback Method
hf	-554.43	kJ/mol	Joback Method
hfus	62.11	kJ/mol	Joback Method
hvap	73.40	kJ/mol	Joback Method
log10ws	-10.02		Crippen Method
logp	9.827		Crippen Method
mcvol	361.260	ml/mol	McGowan Method
pc	789.49	kPa	Joback Method
ripol	2898.00		NIST Webbook
tb	785.95	K	Joback Method
tc	962.86	K	Joback Method
tf	390.16	K	Joback Method
vc	1.429	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1127.47	J/molxK	785.95	Joback Method
cpg	1149.60	J/molxK	815.43	Joback Method
cpg	1170.67	J/molxK	844.92	Joback Method
cpg	1190.72	J/molxK	874.40	Joback Method
cpg	1209.80	J/molxK	903.89	Joback Method
cpg	1227.95	J/molxK	933.37	Joback Method
cpg	1245.22	J/molxK	962.86	Joback Method
dvisc	0.0017237	Paxs	390.16	Joback Method

dvisc	0.0006239	Paxs	456.12	Joback Method
dvisc	0.0002920	Paxs	522.09	Joback Method
dvisc	0.0001620	Paxs	588.06	Joback Method
dvisc	0.0001012	Paxs	654.02	Joback Method
dvisc	0.0000689	Paxs	719.99	Joback Method
dvisc	0.0000501	Paxs	785.95	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.30333e+01
Coeff. B	-5.08636e+03
Coeff. C	-1.32456e+02
Temperature range (K), min.	531.52
Temperature range (K), max.	791.15

Sources

Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R315729&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions

log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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