

1-Tricosanol

Other names:	Tricosanol Tricosyl alcohol n-Tricosanol tricosan-1-ol
Inchi:	InChI=1S/C23H48O/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:	FPLNRAYTBIFSFV-UHFFFAOYSA-N
Formula:	C23H48O
SMILES:	CCCCCCCCCCCCCCCCCCCCCCCCO
Mol. weight [g/mol]:	340.63
CAS:	3133-01-5

Physical Properties

Property code	Value	Unit	Source
gf	5.96	kJ/mol	Joback Method
hf	-670.28	kJ/mol	Joback Method
hfus	59.41	kJ/mol	Joback Method
hvap	83.47	kJ/mol	Joback Method
log10ws	-8.71		Crippen Method
logp	8.191		Crippen Method
mcvol	340.800	ml/mol	McGowan Method
pc	899.64	kPa	Joback Method
rinpol	2577.00		NIST Webbook
rinpol	2577.00		NIST Webbook
rinpol	2478.00		NIST Webbook
rinpol	2478.00		NIST Webbook
tb	817.82	K	Joback Method
tc	1001.81	K	Joback Method
tf	409.79	K	Joback Method
vc	1.343	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1112.83	J/molxK	817.82	Joback Method

cpg	1134.11	J/molxK	848.48	Joback Method
cpg	1154.33	J/molxK	879.15	Joback Method
cpg	1173.54	J/molxK	909.81	Joback Method
cpg	1191.78	J/molxK	940.48	Joback Method
cpg	1209.09	J/molxK	971.14	Joback Method
cpg	1225.54	J/molxK	1001.81	Joback Method
dvisc	0.0018613	Paxs	409.79	Joback Method
dvisc	0.0004334	Paxs	477.80	Joback Method
dvisc	0.0001451	Paxs	545.80	Joback Method
dvisc	0.0000619	Paxs	613.80	Joback Method
dvisc	0.0000313	Paxs	681.81	Joback Method
dvisc	0.0000179	Paxs	749.81	Joback Method
dvisc	0.0000113	Paxs	817.82	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.51529e+01
Coeff. B	-5.83402e+03
Coeff. C	-1.25742e+02
Temperature range (K), min.	518.20
Temperature range (K), max.	718.54

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=C3133015&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
rinpola:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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