Hentriacontene

Other names:	1-Hentriacontene
Inchi:	InChI=1S/C31H62/c1-3-5-7-9-11-13-15-17-19-21-23-25-27-29-31-30-28-26-24-22-20-18-
InchiKey:	YITPJHKSILJOFQ-UHFFFAOYSA-N
Formula:	C31H62
SMILES:	C=CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
Mol. weight [g/mol]:	434.82
CAS:	18435-54-6

Physical Properties

Property code	Value	Unit	Source
gf	297.98	kJ/mol	Joback Method
hf	-557.74	kJ/mol	Joback Method
hfus	74.77	kJ/mol	Joback Method
hvap	83.93	kJ/mol	Joback Method
log10ws	-12.65		Crippen Method
logp	12.115		Crippen Method
mcvol	443.350	ml/mol	McGowan Method
pc	580.08	kPa	Joback Method
rinpol	3096.00		NIST Webbook
rinpol	3078.00		NIST Webbook
rinpol	3088.00		NIST Webbook
rinpol	3088.00		NIST Webbook
rinpol	3085.00		NIST Webbook
rinpol	3062.00		NIST Webbook
tb	905.36	K	Joback Method
tc	1118.31	K	Joback Method
tf	437.37	K	Joback Method
vc	1.752	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1520.15	J/mol×K	905.36	Joback Method
cpg	1547.69	J/mol×K	940.85	Joback Method

cpg	1573.66	J/mol×K	976.34	Joback Method
cpg	1598.14	J/mol×K	1011.83	Joback Method
cpg	1621.25	J/mol×K	1047.32	Joback Method
cpg	1643.08	J/mol×K	1082.82	Joback Method
cpg	1663.74	J/mol×K	1118.31	Joback Method
dvisc	0.0009450	Pa×s	437.37	Joback Method
dvisc	0.0003162	Pa×s	515.37	Joback Method
dvisc	0.0001411	Pa×s	593.37	Joback Method
dvisc	0.0000759	Pa×s	671.37	Joback Method
dvisc	0.0000465	Pa×s	749.36	Joback Method
dvisc	0.0000312	Pa×s	827.36	Joback Method
dvisc	0.0000225	Pa×s	905.36	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.52966e+01
Coeff. B	-6.26607e+03
Coeff. C	-1.44132e+02
Temperature range (K), min.	561.62
Temperature range (K), max.	771.67

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=R59040&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/ci990307l
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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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