

1-Triacontene

Other names:	1-Tricontene triacont-1-ene
Inchi:	InChI=1S/C30H60/c1-3-5-7-9-11-13-15-17-19-21-23-25-27-29-30-28-26-24-22-20-18-16
InchiKey:	WMZHDICSCDKPFS-UHFFFAOYSA-N
Formula:	C30H60
SMILES:	C=CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
Mol. weight [g/mol]:	420.80
CAS:	18435-53-5

Physical Properties

Property code	Value	Unit	Source
gf	289.56	kJ/mol	Joback Method
hf	-537.10	kJ/mol	Joback Method
hfus	72.18	kJ/mol	Joback Method
hvap	81.70	kJ/mol	Joback Method
log10ws	-12.23		Crippen Method
logp	11.725		Crippen Method
mcvol	429.260	ml/mol	McGowan Method
pc	607.86	kPa	Joback Method
rinpol	2998.00		NIST Webbook
rinpol	2995.00		NIST Webbook
rinpol	2995.00		NIST Webbook
rinpol	2993.00		NIST Webbook
tb	882.48	K	Joback Method
tc	1086.21	K	Joback Method
tf	426.10	K	Joback Method
vc	1.696	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1452.77	J/mol×K	882.48	Joback Method
cpg	1479.30	J/mol×K	916.44	Joback Method
cpg	1504.37	J/mol×K	950.39	Joback Method

cpg	1528.06	J/mol×K	984.35	Joback Method
cpg	1550.47	J/mol×K	1018.30	Joback Method
cpg	1571.67	J/mol×K	1052.26	Joback Method
cpg	1591.76	J/mol×K	1086.21	Joback Method
dvisc	0.0010833	Paxs	426.10	Joback Method
dvisc	0.0003637	Paxs	502.16	Joback Method
dvisc	0.0001627	Paxs	578.23	Joback Method
dvisc	0.0000878	Paxs	654.29	Joback Method
dvisc	0.0000539	Paxs	730.35	Joback Method
dvisc	0.0000362	Paxs	806.42	Joback Method
dvisc	0.0000261	Paxs	882.48	Joback Method
hvapt	115.40	kJ/mol	591.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.53472e+01
Coeff. B	-6.21647e+03
Coeff. C	-1.41630e+02
Temperature range (K), min.	554.42
Temperature range (K), max.	761.06

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
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=C18435535&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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
hvapt:	Enthalpy of vaporization at a given temperature
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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