

7-pentadecene

Inchi:	InChI=1S/C15H30/c1-3-5-7-9-11-13-15-14-12-10-8-6-4-2/h13,15H,3-12,14H2,1-2H3
InchiKey:	ZXFYKYSBFXNVIG-UHFFFAOYSA-N
Formula:	C15H30
SMILES:	CCCCCCC=CCCCCCCC
Mol. weight [g/mol]:	210.40
CAS:	15430-98-5

Physical Properties

Property code	Value	Unit	Source
gf	155.64	kJ/mol	Joback Method
hf	-235.71	kJ/mol	Joback Method
hfus	34.81	kJ/mol	Joback Method
hvap	48.94	kJ/mol	Joback Method
log10ws	-5.95		Crippen Method
logp	5.873		Crippen Method
mcvol	217.910	ml/mol	McGowan Method
pc	1472.49	kPa	Joback Method
tb	546.76	K	Joback Method
tc	711.80	K	Joback Method
tf	253.73	K	Joback Method
vc	0.856	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	540.45	J/molxK	546.76	Joback Method
cpg	558.86	J/molxK	574.27	Joback Method
cpg	576.50	J/molxK	601.77	Joback Method
cpg	593.41	J/molxK	629.28	Joback Method
cpg	609.60	J/molxK	656.78	Joback Method
cpg	625.10	J/molxK	684.29	Joback Method
cpg	639.95	J/molxK	711.80	Joback Method
dvisc	0.0051562	Paxs	253.73	Joback Method
dvisc	0.0017495	Paxs	302.57	Joback Method

dvisc	0.0008016	Paxs	351.41	Joback Method
dvisc	0.0004444	Paxs	400.25	Joback Method
dvisc	0.0002801	Paxs	449.08	Joback Method
dvisc	0.0001932	Paxs	497.92	Joback Method
dvisc	0.0001425	Paxs	546.76	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.61986e+01
Coeff. B	-5.11276e+03
Coeff. C	-9.15920e+01
Temperature range (K), min.	412.93
Temperature range (K), max.	561.21

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C15430985&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
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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