(E)-7-Pentadecene

Other names: trans-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/b15-
InchiKey: ZXFYKYSBFXNVIG-FYWRMAATSA-N
Formula: C15H30
SMILES: CCCCCCC=CCCCCCCC
Mol. weight [g/mol]: 210.40

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
rinpol	1476.30		NIST Webbook
rinpol	1474.10		NIST Webbook
rinpol	1477.20		NIST Webbook
rinpol	1475.00		NIST Webbook
rinpol	1475.00		NIST Webbook
rinpol	1474.10		NIST Webbook
ripol	1511.00		NIST Webbook
ripol	1511.00		NIST Webbook
ripol	1511.00		NIST Webbook
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/mol×K	546.76	Joback Method
cpg	558.86	J/mol×K	574.27	Joback Method
cpg	576.50	J/mol×K	601.77	Joback Method
cpg	593.41	J/mol×K	629.28	Joback Method
cpg	609.60	J/mol×K	656.78	Joback Method
cpg	625.10	J/mol×K	684.29	Joback Method
cpg	639.95	J/mol×K	711.80	Joback Method
dvisc	0.0051562	Pa×s	253.73	Joback Method
dvisc	0.0017495	Pa×s	302.57	Joback Method
dvisc	0.0008016	Pa×s	351.41	Joback Method
dvisc	0.0004444	Pa×s	400.25	Joback Method
dvisc	0.0002801	Pa×s	449.08	Joback Method
dvisc	0.0001932	Pa×s	497.92	Joback Method
dvisc	0.0001425	Pa×s	546.76	Joback Method

Sources

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=R97901&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
rinpol: Non-polar retention indices
ripol: Polar retention indices
tb: Normal Boiling Point Temperature

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