1,15-Hexadecadiene

Other names: Hexadecadiene-1,15
Inchi: InChI=1S/C16H30/c1-3-5-7-9-11-13-15-16-14-12-10-8-6-4-2/h3-4H,1-2,5-16H2
InchiKey: JEJVUMPKJVMOEZ-UHFFFAOYSA-N
Formula: C16H30
SMILES: C=CCCCCCCCCCCCCC=C
Mol. weight [g/mol]: 222.41
CAS: 21964-51-2

Physical Properties

Property code	Value	Unit	Source
gf	259.52	kJ/mol	Joback Method
hf	-122.71	kJ/mol	Joback Method
hfus	34.64	kJ/mol	Joback Method
hvap	49.87	kJ/mol	Joback Method
log10ws	-6.23		Crippen Method
logp	6.040		Crippen Method
mcvol	227.700	ml/mol	McGowan Method
pc	1402.74	kPa	Joback Method
rinpol	1577.00		NIST Webbook
rinpol	1581.00		NIST Webbook
rinpol	1581.00		NIST Webbook
ripol	1708.00		NIST Webbook
tb	558.84	K	Joback Method
tc	722.17	K	Joback Method
tf	266.56	K	Joback Method
vc	0.893	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	570.22	J/mol×K	558.84	Joback Method
cpg	588.53	J/mol×K	586.06	Joback Method
cpg	606.07	J/mol×K	613.28	Joback Method
cpg	622.87	J/mol×K	640.51	Joback Method

cpg	638.96	J/mol×K	667.73	Joback Method
cpg	654.36	J/mol×K	694.95	Joback Method
cpg	669.11	J/mol×K	722.17	Joback Method
dvisc	0.0044277	Pa×s	266.56	Joback Method
dvisc	0.0016656	Pa×s	315.27	Joback Method
dvisc	0.0008140	Pa×s	363.99	Joback Method
dvisc	0.0004711	Pa×s	412.70	Joback Method
dvisc	0.0003060	Pa×s	461.41	Joback Method
dvisc	0.0002158	Pa×s	510.13	Joback Method
dvisc	0.0001618	Pa×s	558.84	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C21964512&Units=SI
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
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