1-Heptene, 1,1,2,3,3,4,4,5,5,6,6,7,7,7-tetradecafluoro-

Other names: Hept-1-ene, perfluoro
Perfluoro heptene-1
Tetradecafluoro-1-heptene
perfluoro-1-heptene
perfluorohept-1-ene

Inchi: InChI=1S/C7F14/c8-1(2(9)10)3(11,12)4(13,14)5(15,16)6(17,18)7(19,20)21

InchiKey: CDAVUOSPHHTNBU-UHFFFAOYSA-N

Formula: C7F14

SMILES: FC(F)=C(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)F

Mol. weight [g/mol]: 350.05

CAS: 355-63-5

Physical Properties

Property code	Value	Unit	Source
af	0.4595		Cheméo Relay (1.0)
gf	-2641.96	kJ/mol	Joback Method
hf	-2843.44	kJ/mol	Cheméo Relay (1.0)
hfus	17.52	kJ/mol	Joback Method
hvap	38.07	kJ/mol	Cheméo Relay (1.0)
ie	10.48 ± 0.02	eV	NIST Webbook
logp	5.168		Crippen Method
mcvol	129.970	ml/mol	McGowan Method
pc	1790.91	kPa	Joback Method
rinpol	312.00		NIST Webbook
tb	354.00 ± 3.00	K	NIST Webbook
tb	354.00 ± 1.00	K	NIST Webbook
tc	465.39	K	Cheméo Relay (1.0)
tf	209.40	K	Cheméo Relay (1.0)
vc	0.549	m3/kmol	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	292.90	J/mol×K	337.11	Joback Method

cpg	304.92	J/mol×K	356.46	Joback Method
cpg	316.25	J/mol×K	375.82	Joback Method
cpg	326.90	J/mol×K	395.17	Joback Method
cpg	336.90	J/mol×K	414.52	Joback Method
cpg	346.27	J/mol×K	433.87	Joback Method
cpg	355.04	J/mol×K	453.23	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.50264e+01
Coeff. B	-3.27224e+03
Coeff. C	-3.96040e+01
Temperature range (K), min.	261.62
Temperature range (K), max.	376.43

Sources

Cheméo Relay (1.0):

Cheméo Relay (1.0, beta):

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C355635&Units=SI

Joback Method: https://en.wikipedia.org/wiki/Joback_method

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

Legend

af: Acentric Factor

cpg: Ideal gas heat capacity

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
ie:	Ionization energy
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