Butane, 1,1,2,2,3,3,4,4-octafluoro-1,4-diiodo-

Other names: 1,4-Diiodooctafluorobutane
1,1,2,2,3,3,4,4-octafluoro-1,4-diiodobutane
Inchi: InChI=1S/C4F8I2/c5-1(6,3(9,10)13)2(7,8)4(11,12)14
InchiKey: JILAKKYYZPDQBE-UHFFFAOYSA-N
Formula: C4F8I2
SMILES: FC(F)(I)C(F)(F)C(F)(F)C(F)(F)I
Mol. weight [g/mol]: 453.84
CAS: 375-50-8

Physical Properties

Property code	Value	Unit	Source
gf	-1448.08	kJ/mol	Joback Method
hf	-1576.03	kJ/mol	Joback Method
hfus	9.91	kJ/mol	Joback Method
hvap	31.52	kJ/mol	Joback Method
log10ws	-5.64		Crippen Method
logp	4.313		Crippen Method
mcvol	133.020	ml/mol	McGowan Method
pc	2684.64	kPa	Joback Method
rinpol	903.00		NIST Webbook
rinpol	904.00		NIST Webbook
rinpol	906.00		NIST Webbook
tb	458.44	K	Joback Method
tc	662.50	K	Joback Method
tf	265.36	K	Joback Method
vc	0.535	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	255.42	J/mol×K	458.44	Joback Method
cpg	263.80	J/mol×K	492.45	Joback Method
cpg	271.00	J/mol×K	526.46	Joback Method
cpg	277.11	J/mol×K	560.47	Joback Method

cpg	282.26	J/mol×K	594.48	Joback Method
cpg	286.53	J/mol×K	628.49	Joback Method
cpg	290.05	J/mol×K	662.50	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	358.00	K	13.30	NIST Webbook

Sources

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=C375508&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

Legend

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