Naphthalene, 1,2,7,8-tetrachloro

Other names: 1,2,7,8-tetrachloronaphthalene
naphthalene, 1,2,7,8-tetrachloro-
Inchi: InChI=1S/C10H4Cl4/c11-6-3-1-5-2-4-7(12)10(14)8(5)9(6)13/h1-4H
InchiKey: DARLUNVQYCQWRW-UHFFFAOYSA-N
Formula: C10H4Cl4
SMILES: Clc1ccc2ccc(Cl)c(Cl)c2c1Cl
Mol. weight [g/mol]: 265.95

Physical Properties

Property code	Value	Unit	Source
gf	166.14	kJ/mol	Joback Method
hf	69.03	kJ/mol	Joback Method
hfus	14.62	kJ/mol	Evaluation of entropies of fusion of polychlorinated naphthalenes by model congeners: A DSC study
hvap	61.96	kJ/mol	Joback Method
log10ws	-6.02		Crippen Method
logp	5.453		Crippen Method
mcvol	157.500	ml/mol	McGowan Method
pc	3052.41	kPa	Joback Method
rinpol	2114.00		NIST Webbook
rinpol	2114.00		NIST Webbook
rinpol	2114.00		NIST Webbook
tb	643.50	K	Joback Method
tc	902.29	K	Joback Method
tf	431.34	K	Joback Method
vc	0.606	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	294.67	J/mol×K	643.50	Joback Method
cpg	330.01	J/mol×K	859.16	Joback Method
cpg	324.07	J/mol×K	816.03	Joback Method

cpg	317.64	J/mol×K	772.89	Joback Method
cpg	310.64	J/mol×K	729.76	Joback Method
cpg	303.01	J/mol×K	686.63	Joback Method
cpg	335.52	J/mol×K	902.29	Joback Method
dvisc	0.0003601	Pa×s	643.50	Joback Method
dvisc	0.0004112	Pa×s	608.14	Joback Method
dvisc	0.0004772	Pa×s	572.78	Joback Method
dvisc	0.0005649	Pa×s	537.42	Joback Method
dvisc	0.0006848	Pa×s	502.06	Joback Method
dvisc	0.0008546	Pa×s	466.70	Joback Method
dvisc	0.0011060	Pa×s	431.34	Joback Method

Sources

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

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

Evaluation of entropies of fusion of polychlorinated naphthalenes by model congeners: A DSC study: https://www.doi.org/10.1016/j.tca.2006.04.011

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=R128793&Units=SI

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