

3,4-Dihydro-1,2-naphthalenedicarboxylic anhydride

Other names:	Naphtho[1,2-c]furan-1,3-dione, 4,5-dihydro-
Inchi:	InChI=1S/C12H8O3/c13-11-9-6-5-7-3-1-2-4-8(7)10(9)12(14)15-11/h1-4H,5-6H2
InchiKey:	FSVOMBDSHMMPER-UHFFFAOYSA-N
Formula:	C12H8O3
SMILES:	O=C1OC(=O)C2=C1CCc1cccc12
Mol. weight [g/mol]:	200.19
CAS:	37845-14-0

Physical Properties

Property code	Value	Unit	Source
gf	-42.84	kJ/mol	Joback Method
hf	-258.39	kJ/mol	Joback Method
hfus	19.96	kJ/mol	Joback Method
hvap	60.48	kJ/mol	Joback Method
log10ws	-2.36		Crippen Method
logp	1.470		Crippen Method
mcvol	139.170	ml/mol	McGowan Method
pc	3736.23	kPa	Joback Method
tb	704.42	K	Joback Method
tc	973.99	K	Joback Method
tf	493.59	K	Joback Method
vc	0.528	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	374.33	J/molxK	704.42	Joback Method
cpg	388.04	J/molxK	749.35	Joback Method
cpg	400.62	J/molxK	794.28	Joback Method
cpg	412.14	J/molxK	839.20	Joback Method
cpg	422.62	J/molxK	884.13	Joback Method
cpg	432.11	J/molxK	929.06	Joback Method
cpg	440.66	J/molxK	973.99	Joback Method

Sources

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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C37845140&Units=SI

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

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