2H-1,3-Oxazine, tetrahydro-2-phenyl-

Other names: 1,3-Oxazine, tetrahydro-2-phenyl-
Inchi: InChI=1S/C10H13NO/c1-2-5-9(6-3-1)10-11-7-4-8-12-10/h1-3,5-6,10-11H,4,7-8H2
InchiKey: TVHBYFZBZQWTFS-UHFFFAOYSA-N
Formula: C10H13NO
SMILES: c1ccc(C2NCCCO2)cc1
Mol. weight [g/mol]: 163.22
CAS: 17762-72-0

Physical Properties

Property code	Value	Unit	Source
gf	171.77	kJ/mol	Joback Method
hf	-53.07	kJ/mol	Joback Method
hfus	25.10	kJ/mol	Joback Method
hvap	51.83	kJ/mol	Joback Method
log10ws	-2.24		Crippen Method
logp	1.695		Crippen Method
mcvol	132.990	ml/mol	McGowan Method
pc	3782.33	kPa	Joback Method
tb	549.93	K	Joback Method
tc	802.09	K	Joback Method
tf	367.86	K	Joback Method
vc	0.478	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	315.92	J/mol×K	549.93	Joback Method
cpg	334.52	J/mol×K	591.96	Joback Method
cpg	351.79	J/mol×K	633.98	Joback Method
cpg	367.77	J/mol×K	676.01	Joback Method
cpg	382.50	J/mol×K	718.04	Joback Method
cpg	396.03	J/mol×K	760.07	Joback Method
cpg	408.41	J/mol×K	802.09	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=C17762720&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