

oxamic acid

Inchi:	InChI=1S/C2H3NO3/c3-1(4)2(5)6/h(H2,3,4)(H,5,6)
InchiKey:	SOWBFZRMHSNYGE-UHFFFAOYSA-N
Formula:	C2H3NO3
SMILES:	NC(=O)C(=O)O
Mol. weight [g/mol]:	89.05
CAS:	471-47-6

Physical Properties

Property code	Value	Unit	Source
chs	-554.60 ± 0.70	kJ/mol	NIST Webbook
gf	-362.25	kJ/mol	Joback Method
hf	-552.30 ± 2.20	kJ/mol	NIST Webbook
hfs	-661.20 ± 0.80	kJ/mol	NIST Webbook
hfus	13.42	kJ/mol	Joback Method
hsub	108.90 ± 2.10	kJ/mol	NIST Webbook
hsub	107.95	kJ/mol	NIST Webbook
hvap	60.86	kJ/mol	Joback Method
ie	10.51	eV	NIST Webbook
log10ws	1.03		Crippen Method
logp	-1.444		Crippen Method
mvol	58.030	ml/mol	McGowan Method
pc	7762.62	kPa	Joback Method
tb	517.61	K	Joback Method
tc	717.03	K	Joback Method
tf	482.00 ± 6.00	K	NIST Webbook
vc	0.207	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	118.13	J/mol×K	517.61	Joback Method
cpg	122.03	J/mol×K	550.85	Joback Method
cpg	125.71	J/mol×K	584.08	Joback Method
cpg	129.18	J/mol×K	617.32	Joback Method

cpg	132.44	J/mol×K	650.56	Joback Method
cpg	135.51	J/mol×K	683.79	Joback Method
cpg	138.37	J/mol×K	717.03	Joback Method
hsubt	107.90	kJ/mol	359.00	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=C471476&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

chs:	Standard solid enthalpy of combustion
cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfs:	Solid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hsub:	Enthalpy of sublimation at standard conditions
hsubt:	Enthalpy of sublimation at a given temperature
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
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

Latest version available from:

<https://www.chemeo.com/cid/100-613-9/oxamic-acid.pdf>

Generated by Cheméo on 2024-04-27 23:19:37.960675799 +0000 UTC m=+16549226.881253114.

Cheméo (<https://www.chemeo.com>) is the biggest free database of chemical and physical data for the process industry.