

Sulfamic acid

Other names:	Amidosulfonic acid Amidosulfuric acid Aminosulfonic acid Aminosulfuric acid Imidosulfonic acid Jumbo Kyselina amidosulfonova Kyselina sulfaminova NSC 1871 Sulfamidic acid Sulfaminic acid Sulphamic acid UN 2967 sulphamidic acid
Inchi:	InChI=1S/H3NO3S/c1-5(2,3)4/h(H3,1,2,3,4)
InchiKey:	IIACRCGMVDHOTQ-UHFFFAOYSA-N
Formula:	H3NO3S
SMILES:	NS(=O)(=O)O
Mol. weight [g/mol]:	97.09
CAS:	5329-14-6

Physical Properties

Property code	Value	Unit	Source
gf	-589.79	kJ/mol	Joback Method
hf	-615.12	kJ/mol	Joback Method
hfus	16.42	kJ/mol	Joback Method
hvap	61.55	kJ/mol	Joback Method
log10ws	0.61		Crippen Method
logp	-1.252		Crippen Method
mvol	54.800	ml/mol	McGowan Method
pc	11970.37	kPa	Joback Method
tb	411.89	K	Joback Method
tc	589.47	K	Joback Method
tf	272.40	K	Joback Method
vc	0.209	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	101.71	J/molxK	411.89	Joback Method
cpg	105.18	J/molxK	441.49	Joback Method
cpg	108.56	J/molxK	471.08	Joback Method
cpg	111.83	J/molxK	500.68	Joback Method
cpg	114.98	J/molxK	530.28	Joback Method
cpg	118.02	J/molxK	559.87	Joback Method
cpg	120.92	J/molxK	589.47	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	-1.75452e+00
Coeff. B	-1.57610e+03
Temperature range (K), min.	293.15
Temperature range (K), max.	373.15

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C5329146&Units=SI
The Yaws Handbook of Vapor Pressure: Crippen Method:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure 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

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

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