

Sulfacarbamide

Other names:	(4-aminophenyl)sulfonylurea 1-(4-Aminobenzenesulfonyl)urea 1-Sulfanilylurea 1-Sulfanylurea 4-Amino-N-(aminocarbonyl)benzenesulfonamide 4-Sulfacarbamide A 435 Benzenesulfonamide, 4-amino-N-(aminocarbonyl)- Euvernil N-Sulfanilcarbamide NSC 78438 Sulfanilamide, N1-carbamoyl- Sulfanilcarbamid Sulfanilylurea Sulfanylharnstoff Sulfanyluree Sulfaurea Sulphaurea Uractyl Uramid Urea, sulfanilyl- Urenil Urosulfan Urosulfane p-Aminobenzenesulfonylurea
Inchi:	InChI=1S/C7H9N3O3S/c8-5-1-3-6(4-2-5)14(12,13)10-7(9)11/h1-4H,8H2,(H3,9,10,11)
InchiKey:	WVAKABMNNSMCDK-UHFFFAOYSA-N
Formula:	C7H9N3O3S
SMILES:	NC(=O)NS(=O)(=O)c1ccc(N)cc1
Mol. weight [g/mol]:	215.23
CAS:	547-44-4

Physical Properties

Property code	Value	Unit	Source
gf	-264.33	kJ/mol	Joback Method
hf	-407.63	kJ/mol	Joback Method

h _{fus}	36.01		kJ/mol	Joback Method
h _{vap}	87.21		kJ/mol	Joback Method
log ₁₀ w _s	-1.97			Aqueous Solubility Prediction Method
log _p	-0.374			Crippen Method
m _{cvol}	145.330		ml/mol	McGowan Method
p _c	6620.58		kPa	Joback Method
r _{inpol}	2040.40			NIST Webbook
r _{inpol}	2040.40			NIST Webbook
t _b	688.10		K	Joback Method
t _c	921.34		K	Joback Method
t _f	515.26		K	Joback Method
v _c	0.544		m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
c _{pg}	370.20	J/mol×K	688.10	Joback Method
c _{pg}	380.26	J/mol×K	726.97	Joback Method
c _{pg}	389.41	J/mol×K	765.85	Joback Method
c _{pg}	397.67	J/mol×K	804.72	Joback Method
c _{pg}	405.03	J/mol×K	843.59	Joback Method
c _{pg}	411.53	J/mol×K	882.47	Joback Method
c _{pg}	417.17	J/mol×K	921.34	Joback Method

Sources

Crippen Method: <http://pubs.acs.org/doi/abs/10.1021/ci9903071>

Joback Method: https://en.wikipedia.org/wiki/Joback_method

Aqueous Solubility Prediction Method: <http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDa>

McGowan Method: <http://link.springer.com/article/10.1007/BF02311772>

NIST Webbook: <http://webbook.nist.gov/cgi/cbook.cgi?ID=C547444&Units=SI>

Legend

c_{pg}: 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
rinpola:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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