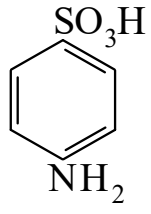
>>**Entry Name: 4-Aminobenzenesulfonic acid,** 9CI
Synonym(s): Aniline-*p*-sulfonic acid. Sulfanilic acid



CAS Registry Number: 121-57-3
Related CAS Registry Numbers(s): 127-56-0 515-74-2 6106-22-5 6209-17-2 22484-64-6 31884-76-1

Molecular Formula: $C_6H_7NO_3S$
Molecular Weight: 173.192
Accurate Mass: 173.014664
Percentage Composition: C 41.61%; H 4.07%; N 8.09%; O 27.71%; S 18.51%
Use/Importance: Used as a 0.8% soln. in 25% AcOH for photometric detn. of $NO_2^{(-)}$ (Griess method), Ce(*IV*) (λ_{max} 540 nm)
Physical Description: Cryst. + $2H_2O$
pKa Value: pK_{a1} 3.24 (25°)
Other Data: Also used as Zn salt, Sulfanilate zinc, USAN
Hazard & Toxicity: Eye and skin irritant. Low acute toxicity

Aldrich: 24042-7
Fluka: 86092
Sigma: S5643

>>**Derivative:** Me ester

CAS Registry Number: 55034-26-9
Molecular Formula: $C_7H_9NO_3S$
Molecular Weight: 187.219
Accurate Mass: 187.030314
Percentage Composition: C 44.91%; H 4.85%; N 7.48%; O 25.64%; S 17.13%
Melting Point: Mp 92°

>>**Derivative:** Amide
Synonym(s): 4-Aminobenzenesulfonamide. Prontosil album. Many other names. **Sulfanilamide,** INN

CAS Registry Number: 63-74-1

Molecular Formula: $C_6H_8N_2O_2S$
Molecular Weight: 172.207
Accurate Mass: 172.030648
Percentage Composition: C 41.85%; H 4.68%; N 16.27%; O 18.58%; S 18.62%
Use/Importance: Antibacterial chiefly of historical importance. Numerous derivs. have antibacterial props. Used for photometric detn. of $NO_2^{(-)}$ and $NO_3^{(-)}$
Physical Description: Leaflets (EtOH aq.)
Melting Point: Mp 165-166°
Solubility: Sol. H_2O
pKa Value: pK_{a1} 10.58 (20°, 0.1*M* KCl)
Calculated Log P Data: Log P –0.57 (calc)
Other Data: Can be diazotised
Hazard & Toxicity: Human teratogenic effects. Exp. reprod. effects. LD_{50} (rat, orl) 3900 mg/kg

Aldrich: 24034-6
Fluka: 86060
Sigma: S9251