>>**Entry Name: Benzenesulfonamide**

CAS Registry Number: 98-10-2
$PhSO_2NH_2$

Molecular Formula: $C_6H_7NO_2S$
Molecular Weight: 157.193
Accurate Mass: 157.019749
Percentage Composition: C 45.85%; H 4.49%; N 8.91%; O 20.36%; S 20.40%
Melting Point: Mp 147-148°
pKa Value: pK_{a1} 10 (20°, 0.1*M* KCl)

Aldrich: 10814-6
Fluka: 12589

>>**Derivative:** *N*-Ac
Synonym(s): *N*-Acetylbenzenesulfonamide. *N*-(Phenylsulfonyl)acetamide, 9CI. *N*-Benzenesulfonylacetamide

CAS Registry Number: 5661-14-3
Molecular Formula: $C_8H_9NO_3S$
Molecular Weight: 199.23
Accurate Mass: 199.030314
Percentage Composition: C 48.23%; H 4.55%; N 7.03%; O 24.09%; S 16.09%
Use/Importance: Exhibits herbicidal antidote activity
Melting Point: Mp 121° (115-117°)

>>**Derivative:** *N*-Ac, K salt

CAS Registry Number: 54743-49-6
Melting Point: Mp 240 dec.°

>>**Derivative:** *N*-Chloro
Synonym(s): Chloramine B. *N*-Chlorobenzenesulfonamide, 9CI. Annogen. Chlorseptal (new form). Chlorogen. Neomagnol

CAS Registry Number: 80-16-0

Molecular Formula: $C_6H_6ClNO_2S$
Molecular Weight: 191.638
Accurate Mass: 190.980776
Percentage Composition: C 37.61%; H 3.16%; Cl 18.50%; N 7.31%; O 16.70%; S 16.73%
Use/Importance: Antibacterial agent

>>**Derivative:** *N*-Chloro, Na salt

CAS Registry Number: 127-52-6

Use/Importance: Oxidising agent; used as titrant for reducing substances (e.g. $Br^{(-)}$)
Physical Description: Cryst. + $1H_2O$
Melting Point: Mp 190°
Solubility: Mod. sol. H_2O; insol. $CHCl_3$
Hazard & Toxicity: May decompose violently if heated above 180°

Fluka: 23265
Rare Chemicals Library: S59090-8
Sigma: C2279

>>**Derivative:** *N,N*-Dichloro
Synonym(s): Dichloramine B. *N,N*-Dichlorobenzenesulfonamide, 9CI

CAS Registry Number: 473-29-0

Molecular Formula: $C_6H_5Cl_2NO_2S$
Molecular Weight: 226.082
Accurate Mass: 224.941803
Percentage Composition: C 31.88%; H 2.23%; Cl 31.36%; N 6.20%; O 14.15%; S 14.18%