



>>Entry Name: **1,3,5-Benzenetriamine**

Synonym(s): 1,3,5-Triaminobenzene

CAS Registry Number: 108-72-5

Related CAS Registry Numbers(s): 638-09-5

Molecular Formula: $C_6H_9N_3$

Molecular Weight: 123.157

Accurate Mass: 123.079647

Percentage Composition: C 58.52%; H 7.37%; N 34.12%

Physical Description: Needles (C_6H_6 or $CHCl_3$) or cryst. + $1H_2O$

Melting Point: Mp 129° (118°) (anhyd.)

>>Derivative: Monohydrate

Melting Point: Mp 84-85°

>>Derivative: 1,3,5-*N*-Tri-Ac

Molecular Formula: $C_{12}H_{15}N_3O_3$

Molecular Weight: 249.269

Accurate Mass: 249.111342

Percentage Composition: C 57.82%; H 6.07%; N 16.86%; O 19.26%

Physical Description: Plates (EtOH)

Melting Point: Mp 208°

>>Derivative: 1,3,5-*N*-Tribenzoyl

Molecular Formula: $C_{27}H_{21}N_3O_3$

Molecular Weight: 435.481

Accurate Mass: 435.158292

Percentage Composition: C 74.47%; H 4.86%; N 9.65%; O 11.02%

Physical Description: Needles (EtOH/ C_6H_6)

Melting Point: Mp 356-357°

>>Derivative: 1,3,5-*N*-Tri-Ph

Synonym(s): 1,3,5-Trianilinobenzene

Molecular Formula: $C_{24}H_{21}N_3$

Molecular Weight: 351.45

Accurate Mass: 351.173547

Percentage Composition: C 82.02%; H 6.02%; N 11.96%

Physical Description: Needles (EtOH)

Melting Point: Mp 193°

Other Data: Protonates on the central benzene ring to form a σ -complex

References:

- Hepp, P., *Annalen*, 1881, **215**, 344, (*synth*)
Minunni, G., *Gazz. Chim. Ital.*, 1890, **20**, 319, (*synth*)
U.K. Pat., 1947, 589 716; *CA*, **42**, 217, (*synth*)
U.S. Pat., 1949, 2 461 498; *CA*, **43**, 3456, (*synth*)
U.K. Pat., 1972, 1 274 551; *CA*, **77**, 61517k, (*synth*)
Glatzhofer, D.T. *et al.*, *Acta Cryst. C*, 1993, **49**, 2128, (*cryst struct, trianilinobenzene*)
Temme, O. *et al.*, *Eur. J. Org. Chem.*, 1998, 651-659, (*synth*)