



>>Entry Name: **1,8-Octanediamine**, 9CI

Synonym(s): Octamethylenediamine. 1,8-Diaminooctane

CAS Registry Number: 373-44-4

$\text{H}_2\text{NCH}_2(\text{CH}_2)_6\text{CH}_2\text{NH}_2$

Molecular Formula:  $\text{C}_8\text{H}_{20}\text{N}_2$

Molecular Weight: 144.259

Accurate Mass: 144.162648

Percentage Composition: C 66.61%; H 13.97%; N 19.42%

Use/Importance: Monomer for polyamides, polyimides and polyureas

Physical Description: Plates

Melting Point: Mp 50-52°

Boiling Point: Bp 225-226°. Bp<sub>20</sub> 130-140°

Solubility: Sol.  $\text{H}_2\text{O}$ , EtOH, Et<sub>2</sub>O, spar. sol.  $\text{C}_6\text{H}_6$ , petrol

pKa Value: pK<sub>a1</sub> 11; pK<sub>a2</sub> 10.1

Aldrich: D2240-1

Fluka: 33200

Sigma: D2888

>>Derivative: Hydrochloride (1:2)

CAS Registry Number: 7613-16-3

Melting Point: Mp 274°

>>Derivative: *N,N'*-Bis(dichloroacetyl)

Synonym(s): *N,N'*-1,8-Octanediylbis(2,2-dichloroacetamide), 9CI. 1,8-Bis(dichloroacetylamino)octane. Fertilysin

CAS Registry Number: 1477-57-2

Molecular Formula:  $\text{C}_{12}\text{H}_{20}\text{Cl}_4\text{N}_2\text{O}_2$

Molecular Weight: 366.113

Accurate Mass: 364.027886

Percentage Composition: C 39.37%; H 5.51%; Cl 38.73%; N 7.65%; O 8.74%

Use/Importance: Inhibitor of spermatogenesis in animals

Physical Description: Cryst. ( $\text{CHCl}_3$ )

Melting Point: Mp 125-127° (122.4-123.6°)

#### References:

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Coffman, D.D. *et al.*, *J. Polym. Sci.*, 1947, **2**, 306, (*polyamides*)

Urech, H.J. *et al.*, *Helv. Chim. Acta*, 1957, **40**, 477, (*synth*)

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