



>>Entry Name: **Adrafinil**, INN

Synonym(s): 2-[(Diphenylmethyl)sulfinyl]-N-hydroxyacetamide, 9CI. 2-[(Diphenylmethyl)sulfinyl]acetohydroxamic acid. Olmifon. CRL 40028. PSL 14-537

CAS Registry Number: 63547-13-7

Ph₂CHSOCH₂CONHOH

Molecular Formula: C₁₅H₁₅NO₃S

Molecular Weight: 289.354

Accurate Mass: 289.077264

Percentage Composition: C 62.26%; H 5.22%; N 4.84%; O 16.59%; S 11.08%

Use/Importance: α₁-Adrenoceptor agonist. Anticholinergic agent; used as a CNS stimulant

Development Status: Launched 1986

Calculated Log P Data: Log P 0.61 (uncertain value) (calc)

Hazard & Toxicity: LD₅₀ (mus, orl) 1950 mg/kg. LD₅₀ (mus, ipr) 859 mg/kg

>>Variant: (±)-form

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Accurate Mass: 289.077264

Percentage Composition: C 62.26%; H 5.22%; N 4.84%; O 16.59%; S 11.08%

Physical Description: Cryst. (EtOAc/2-propanol)

Melting Point: Mp 159-160°

References:

Ger. Pat., 1977, 2 642 511; *CA*, **87**, 134596d, (*synth, pharmacol*)

Roze, C. *et al.*, *Arch. Int. Pharmacodyn. Ther.*, 1983, **265**, 119, (*props*)

Rambert, F.A. *et al.*, *J. Pharmacol.*, 1986, **17**, 37, (*pharmacol*)

Martindale, The Extra Pharmacopoeia, 30th edn., *Pharmaceutical Press*, 1993, 1332