

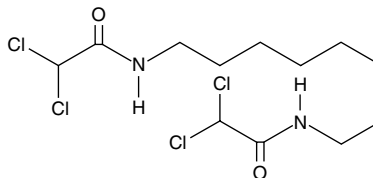
Product Information



WIN 18,446

Item No. 14018

CAS Registry No.: 1477-57-2
Formal Name: N,N'-1,8-octanediylbis[2,2-dichloroacetamide]
Synonym: NSC 59354
MF: C₁₂H₂₀Cl₄N₂O₂
FW: 366.1
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that WIN 18,446 be stored as supplied at -20°C. It should be stable for at least two years.

WIN 18,446 is supplied as a crystalline solid. A stock solution may be made by dissolving the WIN 18,446 in the solvent of choice. WIN 18,446 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of WIN 18,446 in these solvents is approximately 0.5, 5, and 10 mg/ml, respectively.

WIN 18,446 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, WIN 18,446 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. WIN 18,446 has a solubility of approximately 0.1 mg/ml in a 1:5 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

WIN 18,446 is a *bis*-(dichloroacetyl)-diamine which inhibits aldehyde dehydrogenase 1a2, (IC₅₀ = 300 nM), a testes-specific isoform of the enzyme involved in vitamin A metabolism.¹ In this way, WIN 18,446 suppresses the expression of several genes that are regulated by retinoic acid and are necessary for spermatogenesis.^{1,2} As a result, WIN 18,446 may cause infertility in males.^{1,2}

References

1. Amory, J.K., Muller, C.H., Shimshoni, J.A., *et al.* Suppression of spermatogenesis by bisdichloroacetyldiamines is mediated by inhibition of testicular retinoic acid biosynthesis. *J. Androl.* **32**(1), 111-119 (2011).
2. Hogarth, C.A., Evanoff, R., Snyder, E., *et al.* Suppression of *Stra8* expression in the mouse gonad by WIN 18,446. *Biol. Reprod.* **84**(5), 957-965 (2011).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/14018

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will meet our specifications at the time of delivery.

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Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

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