# **PRODUCT INFORMATION**



p,p'-DDT

Item No. 24243

CAS Registry No.: 50-29-3

Formal Name: 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-benzene]

Synonyms: 4,4'-DDT, 4,4'-Dichlorodiphenyltrichloroethane,

p,p'-Dichlorodiphenyltrichloroethane, Dicophaner,

NSC 8939

MF:  $C_{14}H_9CI_5$ FW: 354.5 **Purity:** ≥98% Supplied as: A solid Storage: -20°C Stability: ≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### **Laboratory Procedures**

p,p'-DDT is supplied as a solid. A stock solution may be made by dissolving the p,p'-DDT in the solvent of choice, which should be purged with an inert gas. p,p'-DDT is soluble in methanol (heated) and is slightly soluble in chloroform.

### Description

p,p'-DDT is an organochlorine pesticide that induces 94.2% mortality of malaria mosquito (A. quadrimaculatus) fourth-instar larvae and 100% mortality of A. aegypti larvae when used at concentrations of 0.01 and 0.05 ppm, respectively.<sup>1,2</sup> It increases secretion of estradiol by granulosa and theca cell co-cultures isolated from porcine ovarian follicles when used at concentrations of greater than or equal to 4 ng/ml and increases apoptosis in isolated human peripheral blood mononuclear cells (PBMCs) when used at concentrations ranging from 80 to 150 μg/ml.<sup>3,4</sup> p,p'-DDT (5 nmol/kg, i.p.) increases tumor growth in a DLD1 colorectal adenocarcinoma nude mouse xenograft model.<sup>5</sup> It induces 100% mortality of C. auratus (goldfish) at 0.25 ppm and is lethal to rats but not hamsters (LD<sub>50</sub>s = 120 and  $\sim$ 5,000 mg/kg, respectively).<sup>1,6</sup> p,p'-DDT is a persistent organic pollutant (POP) and is elevated in the sera of pregnant women in malariaendemic regions of South Africa.<sup>7</sup>

## References

- 1. Ginsburg, J.M. Science 105(2722), 233-234 (1947).
- 2. Jones, H.A., Incho, H.H., and Deonier, C.C. J. Econ. Entomol. 39(5), 672 (1946).
- 3. Pérez-Maldonado, I.N., Díaz-Barriga, F., de la Fuente, H., et al. Environ. Res. 94(1), 38-46 (2004).
- 4. Wójtowicz, A.K., Gregoraszczuk, E.L., Ptak, A., et al. Pol. J. Pharmacol. 56(4), 465-472 (2004).
- 5. Song, L.Z., J., Jin, X., Li, Z., et al. Toxicol. Lett. 229(1), 284-291 (2014).
- Truhaut, R., Gak, J.C., and Graillot, C. Eur. J. Toxicol. Environ. Hyg. 7(3), 159-166 (1974).
- 7. Röllin, H.B., Sandanger, T.M., Hansen, L., et al. Sci. Total. Environ. 408(1), 146-152 (2009).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. 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

subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information Buyer agrees to purchase the material can be found on our website.

Copyright Cayman Chemical Company, 07/25/2023

### **CAYMAN CHEMICAL**

1180 EAST ELLSWORTH RD ANN ARBOR, MI 48108 · USA PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640 CUSTSERV@CAYMANCHEM.COM WWW.**CAYMANCHEM**.COM