

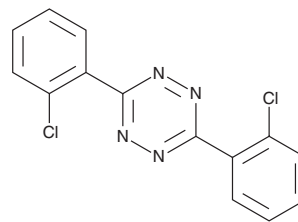
PRODUCT INFORMATION



Clofentezine

Item No. 24228

CAS Registry No.: 74115-24-5
Formal Name: 3,6-bis(2-chlorophenyl)-1,2,4,5-tetrazine
MF: C₁₄H₈Cl₂N₄
FW: 303.1
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

Clofentezine is supplied as a solid. A stock solution may be made by dissolving the clofentezine in the solvent of choice, which should be purged with an inert gas. Clofentezine is slightly soluble in chloroform.

Description

Clofentezine is an acaricide that has broad-spectrum activity against various plant-feeding mite species, including those of the genera *Panonychus* and *Tetranychus*.¹ It is lethal to wild-type, but not *chitin synthase 1 (chs1)* mutant, *T. urticae* mite eggs (LC₅₀s = 1.2 and >5,000 mg/L, respectively). *In vivo*, clofentezine (13-1,000 mg/kg per day) induces formation of thyroid tumors in male rats.² Formulations containing clofentezine have been used to control mite populations in agriculture.

References

1. Dermaeght, P., Osborne, E.J., Odman-Maresh, J., *et al.* High resolution genetic mapping uncovers chitin synthase-1 as the target-site of the structurally diverse mite growth inhibitors clofentezine, hexythiazox and etoxazole in *Tetranychus urticae*. *Insect Biochem. Mol. Biol.* **51**, 52-61 (2014).
2. Hurley, P.M. Mode of carcinogenic action of pesticides inducing thyroid follicular cell tumors in rodents. *Environ. Health Perspect.* **106**(8), 437-445 (1998).

WARNING

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

SAFETY DATA

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.

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