

PRODUCT INFORMATION



Pyrethrins (technical grade)

Item No. 25814

CAS Registry No.: 8003-34-7

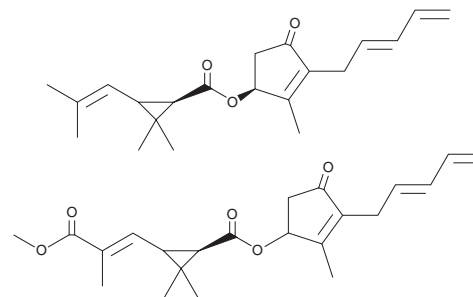
Formal Name: **Pyrethrin I:** (S)-2-methyl-4-oxo-3-((E)-penta-2,4-dien-1-yl)cyclopent-2-en-1-yl (1R)-2,2-dimethyl-3-(2-methylprop-1-en-1-yl)cyclopropane-1-carboxylate

Pyrethrin II: 2-methyl-4-oxo-3-((E)-penta-2,4-dien-1-yl)cyclopent-2-en-1-yl (1R)-3-((E)-3-methoxy-2-methyl-3-oxoprop-1-en-1-yl)-2,2-dimethylcyclopropane-1-carboxylate

Supplied as: A solution in methanol

Storage: -20°C

Stability: ≥2 years



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

Laboratory Procedures

Pyrethrins is supplied as a solution in methanol. To change the solvent, simply evaporate the methanol under a gentle stream of nitrogen and immediately add the solvent of choice, which should be purged with an inert gas. Pyrethrins is slightly soluble in chloroform.

Description

Pyrethrins is a mixture of pyrethrins, which are insecticidal compounds derived from the Chrysanthemum flower.¹ Pyrethrins induce mortality of *C. fatigans* mosquitoes when used at a concentration of 200 mg/ft² alone or in combination with the synergist piperonyl butoxide (Item No. 25820) on glass, wood, or mud panels, with the effect persisting for 3-4 weeks.² Pyrethrins are toxic to rats via oral administration (LC₅₀s = 700 and 1,030 mg/kg for female and male rats) and inhalation (LD₅₀ = 3.4 mg/L), as well as to rainbow trout (LC₅₀ = 52.2 µg/L).^{3,4} Formulations containing pyrethrins have been used in the control of insects in agriculture and horticulture.

References

1. LaForge, F.B. and Barthel, W.F. Constituents of pyrethrum flowers. XX. The partial synthesis of pyrethrins and cinerins and their relative toxicities. *J. Org. Chem.* **12(1)**, 199-202 (1947).
2. Pal, R., Sharma, M.I., and Krishnamurthy, B.S. Toxicity of synthetic and natural pyrethrins incorporating synergists against mosquitoes. *Indian J. Malariol.* **6(3)**, 331-341 (1953).
3. European Food Safety Authority. Conclusion on the peer review of the pesticide risk assessment of the active substance pyrethrins. *EFSA J.* **11(1)**, 3032 (2013).
4. Marking, L.L. and Mauck, W.L. Toxicity of paired mixtures of candidate forest insecticides to rainbow trout. *Bull. Environ. Contam. Toxicol.* **13(5)**, 518-523 (1975).

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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