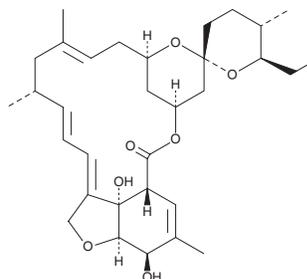


# PRODUCT INFORMATION



## Milbemycin A<sub>4</sub> Item No. 17155

**CAS Registry No.:** 51596-11-3  
**Formal Name:** (6R,25R)-5-O-demethyl-28-deoxy-6,28-epoxy-25-ethyl-milbemycin B  
**Synonyms:** Antibiotic B 41A4, Milbemycin α3  
**MF:** C<sub>32</sub>H<sub>46</sub>O<sub>7</sub>  
**FW:** 542.7  
**Purity:** ≥85%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** Bacterium/*Streptomyces hygroscopicus*



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

### Laboratory Procedures

Milbemycin A<sub>4</sub> is supplied as a solid. A stock solution may be made by dissolving the milbemycin A<sub>4</sub> in the solvent of choice, which should be purged with an inert gas. Milbemycin A<sub>4</sub> is soluble in ethanol, methanol, DMSO, and dimethyl formamide.

### Description

Milbemycin A<sub>4</sub> is the prominent member of a complex family of macrocyclic lactones that contain a characteristic spiroketal group produced from the fermentation of the soil bacterium *S. hygroscopicus* subsp. *aureolacrimosus*.<sup>1</sup> As a compound that potentiates glutamate and GABA-gated chloride-channel opening, milbemycin A<sub>4</sub> is used as a nematocide and insecticide.<sup>1</sup>

### Reference

1. Duke, S.O., Cantrell, C.L., Meepagala, K.M., *et al.* Natural toxins for use in pest management. *Toxins (Basel)* 2(8), 1943-1962 (2010).

**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.

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

Copyright Cayman Chemical Company, 12/05/2022

### 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