## bioaustralis

## fine chemicals

## Lepimectin A4



Synonyms

## Specifications

CAS \#
: 171249-05-1
Molecular Formula
: $\mathrm{C}_{41} \mathrm{H}_{53} \mathrm{NO}_{10}$
Molecular Weight
Source
719.9

Appearance
Semi-synthetic

Purity
Long Term Storage
Solubility


- :

Application Notes
Lepimectin A4 is a the major analogue of a complex of semi-synthetic milbemycins synthesised from 15-hydroxy-5ketomilbemycin $\mathrm{A} 3 / \mathrm{A} 4$ by coupling to methoxyiminophenylacetic acid and then reducing with sodium borohydride. Commercially, lepimectin is a mixture of lepimectin A3 and A4, generically known as lepimectin, with insecticidal, acaricidal and nematocidal properties. Ananlytical methods for the quantitation of the lepimectins have been published but there is a lack of data on the properties and biological potency of the individual analogues. Like other milbemycins, lepimectin acts by opening glutamate sensitive chloride channels. Lepimectin is marketed in Japan and Korea for use on fruit, vegetable and ornamental plants.

## References

1. 13-substituted milbemycin derivatives, their preparation and their use. Takeshiba H. et al., US 56144701997.
2. Residue level and dissipation pattern of lepimectin in shallots using high-performance liquid chromatography coupled with photodiode array detection. Kim S-W. et al., Biomed. Chromatogr. 2016, 30, 1835.
3. Development and validation of an analytical method for the determination of lepimectin residues by HPLC-PDA. Jung-Ah Do J-A. et al., Analyt. Sci. Technol. 2013, 26, 142.
4. Toxic effect of some pesticides on adults and larvae of Aphidoletes aphidimyza (Rondani). Orita H. \& Kashio T., Kyushu Byogaichu Kenkyukaiho 2005, 51, 83.
