

Product Data Sheet

Product Name: Silwet L-77

Cat. No.: GC26464

Chemical Properties

Cas. No. 27306-78-1

Formula

M.Wt

Solubility

Storage 2-8°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

Silwet L-77, an organosilicone nonionic, was used to control several arthropod pests of fresh table grapes^[1]. Silwet L-77 aqueous solution, with a surface tension of 20.5mN/m, can form a wetting film

Caution: Product has not been fully validated for medical applications. For research use only.

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on a hydrophobic substrate [2]. Silwet L-77 can reduce the surface tension for enhancing wetting abilities of the pesticide spraying solutions[3]. Silwet L-77 solutions at concentrations of 0.5% (pH 7) caused 100% mortality of grape mealybug crawlers after 24h treatment[1]. Silwet L-77 solutions at concentrations of 0.1% caused a mortality of up to 99.28% in *Myzus persicae* during 90% relative humidity(RH) for 24h[4]. A 1-week treatment with Silwet L-77 at 0.05% (v:v) + 2% (v:v) petroleum oil 435 resulted in a mortality rate of up to 98% and removal of Boisduval scale from *Cattleya* orchids[5].

References:

- [1] Tipping C, Bikoba V, Chander G J, et al. Efficacy of Silwet L-77 against several arthropod pests of table grape[J]. *Journal of Economic Entomology*, 2003, 96(1): 246-250.
- [2] Ivanova N A, Kovalchuk N M, Sobolev V D, et al. Wetting films of aqueous solutions of Silwet L-77 on a hydrophobic surface[J]. *Soft Matter*, 2016, 12(1): 26-30.
- [3] Ganchev D, Atanasova D. Insecticidal action of Silwet L-77 towards some aphid species[J]. 2018.
- [4] Imai T, Tsuchiya S, Fujimori T. Aphicidal effects of Silwet L-77, organosilicone nonionic surfactant[J]. *Applied Entomology and Zoology*, 1995, 30(2): 380-382.
- [5] Cating R A, Hoy M A, Palmateer A J. Silwet L-77 improves the efficacy of horticultural oils for control of boisduval scale *Diaspis boisduvalii* (Hemiptera: Diaspididae) and the flat mite *Tenuipalpus pacificus* (Arachnida: Acari: Tenuipalpidae) on orchids[J]. *Florida Entomologist*, 2010, 93(1): 100-106.

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