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

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 horticultral 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.