

Title (en)
PESTICIDE

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PESTIZID

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PESTICIDE

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Abstract (en)
[origin: WO2018203832A1] The present invention relates to a pesticide nano-emulsion comprising: (a) a horticultural oil as an active ingredient; (b) a mixture of inert ingredients comprising: (i) an emulsifier; (ii) a stabilizer; and (iii) a surfactant; and (c) a solvent, wherein the horticultural oil is dispersed as droplets in the solvent to form the nano-emulsion. Preferably, the droplets comprise an average size of 50 - 350 nm or 100 - 250 nm. In other embodiments, the mixture of inert ingredients further comprises a sticking agent or the horticultural oil may be soybean oil or palm oil. In another embodiment, the horticultural oil is in an amount of 45.0% w/w of the pesticide nano-emulsion and the mixture of inert ingredients is in a concentration of 55.0% w/w of the pesticide nano-emulsion. Preferably, the pesticide nano-emulsion is adapted to be diluted about 100 times to 800 times to form a dilute pesticide nano-emulsion, wherein the horticultural oil is in a concentration range of 0.056% to 0.45% v/v of the dilute pesticide nano-emulsion.

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Citation (search report)
• [X] CN 103750050 B 20160706
• [XY] KYUHEON LEE ET AL: "Effectiveness of Bionatrol on control of two spotted spider mites (*Tetranychus urticae*), aphids (*Aphis gossypii*), and whiteflies (*Trialeurodes vaporariorum*) on greenhouse grown English cucumber (*Cucumis ssp. kasa*)", JOURNAL OF THE KOREAN SOCIETY FOR HORTICULTURAL SCIENCE, vol. 46, no. 4, 1 January 2005 (2005-01-01), pages 241 - 245, XP055758722
• [X] ANONYMOUS: "Oleotrol-M Product Label", 7 October 2010 (2010-10-07), XP055758777, Retrieved from the Internet <URL:https://ntsresearch.com/wp-content/uploads/2016/03/Oleotrol_M_label.pdf> [retrieved on 20201210]
• [XY] NURUL AKMAR BINTI CHE ZAUDIN: "USING NANOTECHNOLOGY TO ENHANCE PLANT GROWTH", A THESIS SUBMITTED TO THE VICTORIA UNIVERSITY OF WELLINGTON IN FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY, 1 January 2016 (2016-01-01), Wellington, NZ, pages 1 - 153, XP055758666, Retrieved from the Internet <URL:https://researcharchive.vuw.ac.nz/xmlui/bitstream/handle/10063/8206/thesis.pdf?sequence=2> [retrieved on 20201210]
• See references of WO 2018203832A1

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