

Renewal Assessment Report

***Lecanicillium muscarium* Ve6**

Volume 2

List of the tests, studies and information submitted

January 2018

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A List of the tests, studies and information submitted

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A.1 Identity

| Annex point / reference number | Author(s) | Year | Title Source (where different from company) Company, Report No GLP or GEP status (where relevant) Published or not | Data Protection Claimed* Y/N | Owner ** |
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| Annex II Data and Information | | | | | |
| IIM 1.1.3 | CABI Bioscience | 2005 | CABI Genetic Resource Collection CABI Bioscience, Bakeham Lane, Egham, Surrey TW20 9TY UK CABI Bioscience http://www.cabi-bioscience.org/docs/pdf/GRCCatalogue.pdf , CABI nr. 268317 - Public internet database | N | - |
| IIM 1.1.3 | Centraalbureau voor Schimmelcultures | 2005 | Data from CBS Fungi database Centraalbureau voor Schimmelcultures (Fungal Biodiversity Centre), P.O. Box 85167, 3508 AD Utrecht, The Netherlands CBS http://www.cbs.knaw.nl/databases/index.htm , CBS nr. 102071 - Published | N | - |
| IIM 1.1.3 | Humber, R.A., Hansen, K.S. | 2004 | The Agricultural Research Service Collection of Entomopathogenic Fungi (ARSEF) USDA-ARS Plant Protection Research Unit, US Plant, Soil & Nutrition Laboratory, Tower Road, Ithaca, NY 14853-2901 (USA) USDA ARS http://www.ppru.cornell.edu/mycology/insect_mycology.htm , ARSEF nr. 5128 (pp. 13) - published report | N | - |

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| IIM 1.3.5 | Gams | 1971 | Cephalosporium-artige Schimmelpilze (Hyphomycetes). Centraalbureau voor Schimmelcultures (Fungal Biodiversity Centre), P.O. Box 85167, 3508 AD Utrecht, The Netherlands Gustav Fischer Verlag, Stuttgart, Germany ISBN: 3-437-30117-9; pp 172-184 Not applicable published book | N | - |
| IIM 1.3.5 | Gams, W., Van Zaayen, A. | 1982 | Contribution to the taxonomy and pathogenicity of fungicolous Verticillium species. I. Taxonomy Centraalbureau voor Schimmelcultures (Fungal Biodiversity Centre), Baarn, The Netherlands, Proefstation voor de Champignoncultuur, Horst, The Netherlands. - Netherlands Journal of Plant Pathology 88, 57-78. Not applicable Published report | N | - |
| IIM 1.1.3 | Samson, R.A., Hoekstra, E.S., Van Oorschot, C.A.N. | 1984 | Introduction to food-borne fungi. Centraalbureau voor Schimmelcultures (Fungal Biodiversity Centre), P.O. Box 85167, 3508 AD Utrecht, The Netherlands. CBS ISBN: 90-70351-03; pp. 42-46 & 148-149 Not applicable - published book | N | - |
| | Domsch, K.H., Gams, W., Anderson, T. | 1980 | Compendium of the soil fungi. Institute of soil Biology, Federal Agricultural Research Centre, Braunschweig, Germany, Centraalbureau voor Schimmelcultures, Baarn, The Netherlands - London Ac. Press Vol. I & II, 895 pp. & 405 pp. - Published book | N | - |

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| IIM 1.1.3 | Sugimoto, M., Koike, M., Hiyama, N., Nagao, H | 2003 | Genetic, morphological, and virulence characterization of the entomopathogenic fungus <i>Verticillium lecanii</i> . Department of Agro-environmental Science, Obihiro University of Agriculture and Veterinary Medicine, Obihiro 080-8555, Japan. - Journal of Invertebrate Pathology, vol. 82, pp. 176-187 Not applicable Published report | N | - |
| | Zare, R., Gams, W. | 2001 | A revision of <i>Verticillium</i> section <i>Prostrata</i> . IV. The genera <i>Lecanicillium</i> and <i>Simplicillium</i> gen.nov. CABI Bioscience, Bakeham Lane, Egham, Surrey TW20 9TY, UK, Centraalbureau voor Schimmelcultures P.O. Box 85167, 3508 AD Utrecht, the Netherlands - Nova Hedwigia, vol. 73, pp. 1-50. Not applicable Published report | N | - |
| | Koppert Beheer B.V | 2000 | Historical background of <i>Verticillium lecanii</i> Koppert Beheer B.V., Department R&D Microbials and Regulatory affairs, P.O. Box 155, 2650 AD Berkel en Rodenrijs, The Netherlands Koppert Beheer B.V. - - unpublished statement | Y | KBS |
| IIM 1.4.3.3/01 | Koppert Beheer B.V. | 2005 | Identity and content of impurities and contaminating micro-organisms. Koppert Beheer B.V., Department R&D Microbials and Regulatory affairs, P.O. Box 155, 2650 AD Berkel en Rodenrijs, The Netherlands Koppert Beheer B.V. - - unpublished statement | Y | KBS |

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| | Koppert Beheer B.V. | 2005 | Relationships of <i>Verticillium lecanii</i> to known plant or animal or human pathogens Koppert Beheer B.V., Department R&D Microbials and Regulatory affairs, P.O. Box 155, 2650 AD Berkel en Rodenrijs, The Netherlands Koppert Beheer B.V. - - unpublished statement | Y | KBS |
| | Typas, M.A. | 2002a | An analysis of Vertalec and Mycotal isolates by genetic fingerprinting. University of Athens, Faculty of Biology, Department of Genetics and Biotechnology, Panepistemiopolis, Kouponia, Athens 15701, Greece. Koppert BV - - Unpublished report | N | KBS |
| | Typas, M.A. | 2002b | An introduction to molecular techniques used for the classification of microorganisms, including fungi: an explanation on characterization of fungal species and strains for the purpose of registration of microbial pesticides. University of Athens, Faculty of Biology, Department of Genetics and Biotechnology, Panepistemiopolis, Kouponia, Athens 15701, Greece. Koppert BV - - Unpublished report | N | KBS |

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| | Bidochka, M.J., St Legar, R.J., Stuart, A., Gowanlock, K. | 1999 | Nuclear rDNA phylogeny in the fungal genus <i>Verticillium</i> and its relationship to insect and plant virulence, extracellular protease and carbohydrases Department of Biology, Trent University, Petersborough, Ontario, Canada K9J 7B8 - Microbiology 145, pp. 955-963. 1999. - Published report | N | - |
| Annex III Data and Information | | | | | |
| | Koppert Beheer BV | 2005 | Identity and content of impurities and contaminating micro-organisms. Koppert Beheer BV, Department R&D Microbials and Regulatory affairs, P.O. Box 155, 2650 AD Berkel en Rodenrijs, The Netherlands Koppert Beheer BV - - unpublished statement | Y | KBS |
| | Ben El Hadj, N., Skrobek, A., Ravensberg, W.J., Wang, C., Lange, C., Vey, A., Butt, T.M. | 2005 | Destruxin production by the entomopathogenic fungi <i>Lecanicillium muscarium</i> and <i>L. longisporum</i> (Petch) Zare & Gams. Institut National de la Recherche Agronomique (I.N.R.A.), Unité de Recherche de Pathologie Comparée, 30380 St Christol les Alès, France, School of Biological Sciences, University of Wales Swansea, Singleton Park, SA2 8PP, UK, Laboratoire de Spectrometrie de Masse Bio-Organique, CNRS-UMR 6014, Université of Rouen, 76821 Mont-Saint-Aignan-cedex, France, Koppert Biological Systems, POB 155, 2650 AD Berkel en Rodenrijs, The Netherlands. - Journal of Natural Products. - Report to be published | N | KBS |

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| | Butt, T.M., Skrobek, A., Wang, C., Shah, F.A., Ben El Hadj, N. | 2004 | RAFBCA Partner 01, University of Wales, Swansea, UK, Final Report 01.11.01-31.10.04. School of Biological Sciences, University of Wales Swansea, Singleton Park, SA2 8PP, UK Koppert Beheer BV; QLK1-2001-01391 - unpublished report | N | KBS |
| | Koppert Beheer B.V. | 2005 | Information on the production of metabolites (especially toxins) by <i>Verticillium lecanii</i> strain Ve6. Koppert Beheer B.V., Department R&D Microbials and Regulatory affairs, P.O. Box 155, 2650 AD Berkel en Rodenrijs, The Netherlands Koppert Beheer BV - unpublished statement | Y | KBS |
| KMP 1.4/01 | Jacobs, N. | 2016a | CERTIFICATE OF ANALYSIS Koppert, 16M07 Koppert B.V., Berkel en Rodenrijs, NL GLP/GEP: no Published: no | yes | KBS |
| KMP 1.4/02 | Jacobs, N. | 2016b | CERTIFICATE OF ANALYSIS Koppert, 16M15 Koppert B.V., Berkel en Rodenrijs, NL GLP/GEP: no Published: no | yes | KBS |
| KMP 1.4/03 | Delvaux, S. | 2016 | CERTIFICATE OF ANALYSIS (16M19) Koppert, 16M19 Koppert Biological Systems GLP/GEP: no Published: no | yes | KBS |

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| KMP 1.4/04 | Jacobs, N. | 2016c | CERTIFICATE OF ANALYSIS Koppert, 16M21 Koppert B.V., Berkel en Rodenrijs, NL GLP/GEP: no Published: no | yes | KBS |
| KMP 1.4/05 | Jacobs, N. | 2016d | CERTIFICATE OF ANALYSIS Koppert, 16M24 Koppert B.V., Berkel en Rodenrijs, NL GLP/GEP: no Published: no | yes | KBS |
| KMP 1.4/06 | Kuneman, A.A. | 2016a | CERTIFICATE OF ANALYSIS Koppert, AR-16-HE-009176-01 Eurofins Food Netherlands B.V. GLP/GEP: no Published: no | yes | KBS |
| KMP 1.4/07 | Kuneman, A.A. | 2016b | CERTIFICATE OF ANALYSIS Koppert, AR-16-HE-018439-01 Eurofins Food Netherlands B.V. GLP/GEP: no Published: no | yes | KBS |
| KMP 1.4/08 | Kuneman, A.A. | 2016c | CERTIFICATE OF ANALYSIS Koppert, AR-16-HE-024767-01 Eurofins Food Netherlands B.V. GLP/GEP: no Published: no | yes | KBS |
| KMP 1.4/09 | Kuneman, A.A. | 2016d | CERTIFICATE OF ANALYSIS Koppert, AR-16-HE-024767-01 Eurofins Food Netherlands B.V. GLP/GEP: no Published: no | yes | KBS |

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| KMP 1.4/10 | Kuneman, A.A. | 2016e | CERTIFICATE OF ANALYSIS Koppert, AR-16-HE-027242-01 Eurofins Food Netherlands B.V. GLP/GEP: no Published: no | yes | KBS |
| KMP 1.4/11 | Kuneman, A.A. | 2016f | CERTIFICATE OF ANALYSIS Koppert, AR-16-HE-034755-01 Eurofins GLP/GEP: no Published: no | yes | KBS |

*: Protection for 5 years claimed from date of decision concerning listing in Annex I - the study report has not been submitted any of the Member States in support of an application for authorization, or (though the study report has been submitted) has not been used any of the Member States as the basis for decision on the initial authorization, or to maintain a given authorization, of a plant protection product before the date of submission of the dossier to Rapporteur Member State.

**: Owners' code identifications and names (Code identification: KBS, Name: Koppert Beheer Systems)

A.2 Biological, physical and chemical properties

| Annex point/ reference number | Author(s) | Year | Title Source (where different from company) Company, Report No GLP or GEP status (where relevant), Published or not | Data Protection Claimed* Y/N | Owner** |
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| Annex II Data and information | | | | | |
| | Scholze, I. | 2016 | LITERATURE REVIEW ON LECANICILLIUM MUSCARIUM VE6 (19-79): BIOLOGICAL PROPERTIES Koppert, 2191392-MA-02-01 GAB Consulting GmbH, Heidelberg, Germany GLP/GEP: no Published: no | Y New data for active ingredient, not previously submitted nor evaluated | KBS |
| IIM 1.3.5/01 IIM 2.1/01 | Koppert Beheer B.V. | 2000 | Historical background of <i>Verticillium lecanii</i> Koppert Beheer B.V., Department R&D Microbials and Regula- tory affairs, P.O. Box 155, 2650 AD Berkel en Rodenrijs, The Netherlands Koppert Beheer B.V. - - unpublished statement | Y | KBS |
| IIM2.2/02 | Brady, B.L.K. | 1979 | Verticillium lecanii. CMI Description of pathogenic fungi and bacteria. Commonwealth Mycological Institute , ferry lane, Kew, Surrey, UK. CMI Description of pathogenic fungi and bacteria, No 610. Published report | N | - |
| IIM 2.2/13 | Lo, P.L., Chapman, R.B. | 1998 | The role of parasitoids and entomopathogenic fungi in mortality of third-instar and adult <i>Ceroplastes destructor</i> and <i>C. sinensis</i> | N | - |

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| | | | (Hemiptera: Coccidae: Ceroplastinae) on citrus in New Zealand. The Horticulture and Food Research Institute of New Zealand, Whangarei, New Zealand, Department of Entomology and Animal Ecology, Lincoln University, PO Box 84, Lincoln, Canterbury, New Zealand. - Biocontrol Science and Technology 8, 573-582. - Published report | | |
| IIM 2.2/16 | Spencer, D.M., Atkey, P.T. | 1981 | Parasitic effect of <i>Verticillium lecanii</i> on two rust fungi. Glasshouse Crops Research Institute, Littlehampton, W. Sussex, BN16 3PU, Great Britain - Transactions British Mycological Society 77 (3): 535-542 - published report | N | - |
| IIM 2.2/09 | Hanssler, G., Hermanns, M. | 1981 | <i>Verticillium lecanii</i> as a parasite on cysts of <i>Heterodera schachtii</i> . Institut für Biologie III (Pflanzenphysiologie), RWTH-Aachen, Worringer Weg, D-5100 Aachen, West Germany - Zeitschrift für Pflanzenkrankheiten und Pflanzenschutz, No 88, pp. 678-681 - Published report | N | - |
| IIM 2.2/10 | Hill, R.A., Lacey, J. | 1983 | The microflora of ripening barley grain and the effects of pre-harvest fungicide applications. Rothamsted Experimental Station, Harpenden, Herts., AL5 2JQ, UK - Annals of Applied Biology, 102: 455-465. - Published report | N | - |
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| IIM 2.10/02 | Hall, R.A. | 1980 | Effect of repeated subculturing on agar and passaging through an insect host on pathogenicity, morphology and growth rate of <i>Verticillium lecanii</i> Glasshouse Crops research Institute, Worthing Road, Little- hampton, Sussex, UK. - Journal of invertebrate pathology 36, pp. 216-222. - Published statement | N | - |
| KMA 2.2.2/01 | Goettel, M.S., Koike, M., Jun Kim, J., Aiuchi, D., Shinya, R., Brodeur, J. | 2008 | POTENTIAL OF LECANICILLIUM SPP. FOR MANAGE- MENT OF INSECTS, NEMATODES AND PLANT DIS- EASES -, not applicable J Invertebr Pathol, 98, 256-261 GLP/GEP: no Published: yes | no | - |
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| KMA 2.3/01 | Goettel, M.S., Koike, M., Jun Kim, J., Aiuchi, D., Shinya, R., Brodeur, J. | 2008 | POTENTIAL OF LECANICILLIUM SPP. FOR MANAGE- MENT OF INSECTS, NEMATODES AND PLANT DIS- | no | - |

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| | | | EASES -, not applicable J Invertebr Pathol, 98, 256-261 GLP/GEP: no Published: yes Submitted in: KMA 2.2.2/01 | | |
| KMA 2.3/02 | Shinde, S.V., Patel, K.G., Purohit, M.S., Pandya, J.R., Sabalpara, A.N. | 2010 | LECANICILLIUM LECANII (ZIMM.) ZARE AND GAMES AN IMPORTANT BIOCONTROL AGENT FOR THE MANAGEMENT OF INSECT PESTS - A REVIEW -, not applicable Agri. Review, 31, 235-252 GLP/GEP: no Published: yes | no | - |
| KMA 2.3/03 | Aqueel, M.A., Leather, S.R. | 2013 | VIRULENCE OF VERTICILLIUM LECANII (Z.) AGAINST CEREAL APHIDS; DOES TIMING OF INFECTION AF- FECT THE PERFORMANCE OF PARASITIDS AND PREDATORS? -, not applicable Pest Management Science, 69, 493-498 GLP/GEP: no Published: yes | no | - |
| KMA 2.3/04 | Kope, H.H., Alfaro, R.I., Lavallee, R. | 2008 | EFFECTS OF TEMPERATURE AND WATER ACTIVITY OF LECANICILLIUM SPP. CONIDIA GERMINATION AND GROWTH, AND MYCOSIS OF PISSODES STROBI -, not applicable BioControl, 53, 489-500 GLP/GEP: no Published: yes | no | - |
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| | O. | | ECONOMICALLY IMPORTANT WHITEFLIES -, not applicable GLP/GEP: no Published: no Submitted in: KMA 2.2.2/02 | | |
| IIM 2.3.2/02 IIM 2.5/02 IIM 2.6/05 | Ekbom, B.S. | 1979 | Investigations on the potential of a parasitic fungus (<i>Verticillium lecanii</i>) for biological control of the greenhouse whitefly (<i>Trialeurodes vaporariorum</i>). Department of Plant and Forest Protection, Sweden - Swedish Journal of Agricultural Research, No 9, pp. 129-138. - published report | N | - |
| IIM 2.2/07 | Hall, R.A. | 1975 | Aphid control by a fungus, <i>Verticillium lecanii</i> , within an integrated programme for Chrysanthemum pests and diseases. Glasshouse Crops Research Institute, Worthing Road, Littlehampton, Sussex, BN16 3PU, UK. - Proceedings 8th British Insecticide and Fungicide Conference (1975), Pp. 93-99 - Published | N | - |
| IIM 2.2/15 | Rombach, M.C., Gillespie, A.T. | 1988 | Entomogenous Hyphomycetes for insect and mite control on greenhouse crops. Boyce Thompson Institute for Plant Research at Cornell University, USA, AFRC Institute of Horticultural Research, Littlehampton, West Sussex BN17 6LP, UK - Biocontrol News & Information 9(1), pp. 7-18. - published report | N | - |
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| IIM 2.5/05 | G., Hirte, W.F. | | the whitefly (<i>Trialeurodes vaporariorum</i> Westw.) with <i>Verticillium lecanii</i> Zimm. WB Bioprozesstechnik, Aussenstelle Kleinmachnow der Humboldt-Universität zu Berlin, Max-Reimann-Strasse 16, Kleinmachnow, DDR, Institut für Pflanzenschutzforschung Kleinmachnow der AdL der DDR, Stahnsdorfer Damm 81, Kleinmachnow, DDR - Zentralblatt Mikrobiologie, No. 143, 363-373 - published report | | |
| IIM 2.3.2/04 IIM 2.5/04 IIM 2.6/10 | Schreiter, G., Butt, T.M., Beckett, A., Vestergaard, S., Moritz, G | 1994 | Invasion and development of <i>Verticillium lecanii</i> in the western flower thrips, <i>Frankliniella occidentalis</i> . Institute of Microbiology, Martin-Luther-University Halle-Wittenberg, Weinbergweg 16a, Halle/S. O-4050, Germany - Mycological Research, No 98 (9), pp. 1025-1034. - published report | N | - |
| IIM 2.4/02 | W. Gams | 1971 | Cephalosporium-artige Schimmelpilze (Hyphomycetes). Centraalbureau voor Schimmelcultures (Fungal Biodiversity Centre), P.O. Box 85167, 3508 AD Utrecht, The Netherlands Gustav Fischer Verlag, Stuttgart, Germany ISBN: 3-437-30117-9; pp 172-184 not applicable published book | N | - |
| IIM 2.4/04 | Hall, R.A. | 1984 | Epizootic potential for aphids of different isolates of the fungus, <i>Verticillium lecanii</i> . Glasshouse Crops Research Institute, Littlehampton, West Sussex, BN16 3PU, Great Britain - Entomophaga 29(3): 311-321. - published report | N | - |
| IIM 2.4/05 | Jackson, C.W., J.B. Heale, Hall, R.A. | 1985 | Traits associated with virulence to the aphid <i>Macrosiphoniella sanborni</i> in eighteen isolates of <i>Verticillium lecanii</i> . | N | - |

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| | | | Department of Biology, Queen Elizabeth College (University of London), Campden Hill Road, London W8 7AH, Glasshouse Crops Research Institute, Littlehampton, West Sussex BN 17 6LP, United Kingdom. - Annals of Applied Biology, 106: 39-48 - published report | | |
| IIM 2.4/08 | Uma, N.U., Taylor, G.S. | 1987 | Parasitism of leek rust urediniospores by four fungi. Department of Botany, University of Manchester, Manchester M13 9PL, England - Transactions British Mycological Society 88(3): 335-340. - published report | N | - |
| | Kouvelis, V.N., Wang, C., Skrobek, A., Pappas, K.M., Typas, M.A., Butt, T.M. | 2011 | ASSESSING THE CYTOTOXIC AND MUTAGENIC EFFECTS OF SECONDARY METABOLITES PRODUCED BY SEVERAL FUNGAL BIOLOGICAL CONTROL AGENTS WITH THE AMES ASSAY AND THE VITOTOX TEST -, not applicable Mutat Res, 722, 1-6 GLP/GEP: no Published: yes | N | - |
| IIM 8.8/01 | Verhaar, H.J.M. | 2000 | The effects of <i>Verticillium lecanii</i> on non-target arthropods OpdenKamp Registration & Notification, Koninginnegracht 23, 2514 AB, The Hague, The Netherlands. Koppert Beheer BV F:\oag\Ko\My1-100001639f-PSD.fm - unpublished statement | Y | KBS |
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| IIM 8.8/03 | van Doorn, A. | 1998 | Impact of the fungi <i>Verticillium</i> and <i>Trichoderma</i> on adult bumblebees and bumblebee brood. Koppert Biological Systems, Department R&D Natupol, P.O. Box 155, 2650 AD Berkel en Rodenrijs, The Netherlands Koppert Beheer BV Pr980701 Not GLP unpublished | Y | KBS |
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| Annex point/ reference number | Author(s) | Year | Title Source (where different from company) Company, Report No GLP or GEP status (where relevant), Published or not | Data Protection Claimed* Y/N | Owner** |
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| Annex III Data and Information | | | | | |
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| KMP 2.1/01 KMP 2.5/01 KMP 2.7.1/01 KMP 2.7.2/01 KMP 2.7.3/01 KMP 2.7.4/01 KMP 2.7.5/01 KMP 2.7.7/01 | Biagioni Angeli, E. | 2016 | PHYSICAL-CHEMICAL PROPERTIES OF PRODUCT MYCOTAL BEFORE AND AFTER 6 MONTHS SHELF LIFE Koppert, BT154/16 Biotechnologie BT Srl, Fraz. Pantalla, Italy GLP/GEP: yes Published: no | Y | KBS |
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| KMP 2.2.1/01 | Registration department Koppert B.V. | 2017 | DECLARATION ON PACKAGING Koppert, not stated Koppert B.V., Berkel en Rodenrijs, NL GLP/GEP: no Published: no | Y | KBS |
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*: Protection for 5 years claimed from date of decision concerning listing in Annex I - the study report has not been submitted any of the Member States in support of an application for authorization, or (though the study report has been submitted) has not been used any of the Member States as the basis for decision on the initial authorization, or to maintain a given authorization, of a plant protection product before the date of submission of the dossier to Rapporteur Member State.

**: Owners' code identifications and names (Code identification: KBS, Name: Koppert Beheer Systems)

A.3 Data on application

| Annex point / reference number | Author(s) | Year | Title Source (where different from company) Company, Report No GLP or GEP status (where relevant) Published or not | Data Protection Claimed* Y/N | Owner ** |
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| Annex II Data and Information | | | | | |
| | Scholze, I. | 2016 | LITERATURE REVIEW ON LECANICILLIUM MUSCARIUM VE6 (19-79): BIOLOGICAL PROPERTIES Koppert, 2191392-MA-02-01 GAB Consulting GmbH, Heidelberg, Germany GLP/GEP: no Published: no | Y | KBS |
| | Ambethgar, V. | 2009 | POTENTIAL OF ENTOMOPATHOGENIC FUNGI IN INSECTICIDE RESISTANCE MANAGEMENT (IRM): A REVIEW -, not applicable Journal of Biopesticides, 2, 177-193 GLP/GEP: no Published: yes | N | - |
| | R.A. Hall | 1980 | Effect of repeated subculturing on agar and passaging through an insect host on pathogenicity, morphology and growth rate of <i>Verticillium lecanii</i> Glasshouse Crops research Institute, Worthing Road, Little- hampton, Sussex, UK. - Journal of invertebrate pathology 36, pp. 216-222. - Published statement | N | - |

A.4 Further information

| Annex point / reference number | Author(s) | Year | Title Source (where different from company) Company, Report No GLP or GEP status (where relevant) Published or not | Data Protection Claimed* Y/N | Owner ** |
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| Annex II Data and Information | | | | | |
| | Anonymous | 2016 | MATERIAL SAFETY DATA SHEET - MYCOTAL Koppert, not available Koppert Biological Systems GLP/GEP: no Published: no | N | KBS |

A.5 Analytical methods

| Annex point / reference number | Author(s) | Year | Title Source (where different from company) Company, Report No GLP or GEP status (where relevant) Published or not | Data Protection Claimed* Y/N | Owner ** |
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| Annex II Data and Information | | | | | |
| KMA 4.2/07 | Registration department Koppert B.V. | 2016 | STATEMENT Koppert, not stated Koppert B.V., Berkel en Rodenrijs, NL GLP/GEP: no Published: no | yes | KBS |
| | Koppert Beheer BV | 2005 | Identity and content of impurities and contaminating micro-organisms. Koppert Beheer BV, Department R&D Microbials and Regulatory affairs, P.O. Box 155, 2650 AD Berkel en Rodenrijs, The Netherlands Koppert Beheer BV - - unpublished statement | Y | KBS |
| | Koppert Beheer BV | 2003b | Method of quality control of <i>Verticillium lecanii</i> strain Ve6: viable spore content. Koppert Beheer BV, Department R&D Microbials and Regulatory affairs, P.O. Box 155, 2650 AD Berkel en Rodenrijs, The Netherlands Koppert Beheer BV - - unpublished statement | Y | KBS |

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| | Koppert Beheer B.V. | 2005 | Information on the production of metabolites (especially toxins) by <i>Verticillium lecanii</i> . Koppert Beheer B.V., Department R&D Microbials and Regulatory affairs, P.O. Box 155, 2650 AD Berkel en Rodenrijs, The Netherlands; Koppert Beheer B.V. - - unpublished statement | Y | KBS |
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| | Koppert B.V. | 2006 | Material Safety Data Sheet <i>Lecanicillium muscarium</i> strain Ve6, version 1.1 Koppert B.V., Department R&D Microbials and Regulatory affairs, P.O. Box 155, 2650 AD Berkel en Rodenrijs, The Netherlands Koppert BV - - unpublished statement | N | KBS |

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| Annex II Data and Information | | | | | |
| KMA 5.1/01 | Coranelli, S. | 2014 | ANALYTICAL METHOD VALIDATION FOR THE DETERMINATION OF THE ACTIVE INGREDIENT CONTENT IN THE FORMULATED PRODUCT MYCOTAL Koppert, BT062/14 Biotechnologie BT Srl, Fraz. Pantalla, Italy GLP: yes Published: no | Y New data for new formulation, not previously submitted nor evaluated | KBS |

A.6 Effects on human health

| Annex point / reference number | Author(s) | Year | Title Source (where different from company) Company, Report No GLP or GEP status (where relevant) Published or not | Data Protection Claimed* Y/N | Owner ** |
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| Annex II Data and Information | | | | | |
| IIM 5.1/01 B.6.1.1 | Pfau, W. | 2016 | LITERATURE REVIEW ON LECANICILLIUM MUSCARIUM VE6 (19-79): TOXICOLOGY Koppert, 2191392-MA-05-01 n/a GLP/GEP: no Published: no | Y New data for active ingredient, not previously submitted nor evaluated | KBS |
| IIM 5.2/01 B.6.1.1.1 | G. Doekes, P. Larsen, T. Sigsgaard, J. Baelum | 2004 | IgE Sensitization to Bacterial and Fungal Biopesticides in a Cohort of Danish Greenhouse Workers: The BIOGART Study. Institute for Risk Assessment Sciences, University Utrecht, The Netherlands, Department of Occupational and Environmental Medicine, Odense University Hospital, Denmark and Department of Environmental and Occupational Medicine, University of Aarhus, Denmark - American Journal of Industrial Medicine 46: pp. 404-407. 2004. not applicable published report | N | - |
| IIM 5.2/02 B.6.1.1.1 | Eaton, K.K., Hennessy, T.J., Snodin, D.J., McNulty, D.W. | 1986 | <i>Verticillium lecanii</i> , allergological and toxicological studies on work exposed personnel. The Cedar House, Popeswood Road, Binfield, Berks RG12 5AD, U.K. - Annals of Occupational Hygiene, vol 30, No 2, pp 209-217 Not applicable Published | N | - |

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| IIM 5.2/03 B.6.1.1.1 | Eaton, K.K., Walport, M. | 1982 | Investigation on human subjects exposed to <i>Verticillium lecanii</i> . Tate & Lyle, group Research and Development, Pilot plant building, Deacon way, Reading, UK. Koppert Beheer B.V V-12 Not GLP Unpublished | N | KBS |
| IIM 5.2/04 B.6.1.1.1 | Baelum, J., Larsen, P., Sigsgaard, T., Doekes, G. | 2003 | Sensitization and inflammatory lung disease among greenhouse workers exposed to microbiological pesticides. Department of Occupational and Environmental Medicine, Odense University Hospital, Denmark - ISBN nr.: 87-7904-112-4: Conference on Occupational Health Risks of Producing and Handling Organisms for Biological Control of Pests in Agriculture (eds. A. M. Madsen, J. Eilenberg, A. Enkegaard, N.B. Hendriksen, D.F. Jensen, J.B. Jespersen, J. Larsen), pp. 13. - Published | N | - |
| IIM 5.2/05 B.6.1.1.1 | Baelum, J., Larsen, P., Doekes, G., Sigsgaard, T. | 2012 | HEALTH EFFECTS OF SELECTED MICROBIOLOGICAL CONTROL AGENTS. A 3-YEAR FOLLOW-UP STUDY -, not applicable Annals of Agricultural and Environmental Medicine, 19(4), 631-636 GLP/GEP: no Published: yes | N New data for active ingredient, not previously submitted nor evaluated | - |
| IIM 5.2 B.6.1.1.2 | Mikkelsen, H. | 2016 | STATEMENT CONCERNING HAZARDS TO MAN DURING THE USE OR HANDLING OF LECANICILLIUM MUSCARIUM STRAIN VE6 (19.79) CBS COLLECTION NO: 102071 Koppert, not applicable Koppert Biological Systems GLP/GEP: no Published: no | Y New data for active ingredient, not previously submitted nor evaluated | KBS |

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| IIM 2.7.1/01 B.6.1.1.4 | Das, D.K., Grover, R.K., Chachra, K.L., Bhatt, N.C., Bibhabati, M. | 1997 | Fine needle aspiration cytology diagnosis of a fungal lesion of the <i>Verticillium</i> species. A case report. Institute of Cytology of Preventive Oncology and the Department of Radiotherapy, Maulana Azad Medical college and Lok Nayak Hospital, and the Department of Microbiology, G.B. Pant Hospital, New Delhi, India - Acta-Cytologica 41(2), pp. 577-582. - Published | N | - |
| IIM 2.7.1/02 B.6.1.1.4 | S. Grandesso, G. Amici, C. Bocci, A. Mottola | 1996 | Fungal peritonitis in peritoneal dialysis: a critical review of seven cases. Microbiology Laboratory "S. Maria dei Battuti" Regional Hospital, 31100 Treviso, Italy. - Alpe Adria Microbiology Journal 5, 15-21. - Published report | N | - |
| IIM 2.7.1/03 B.6.1.1.4 | J.Y. Shin, H.M. Kim, J.W. Hong | 2002 | Keratitis caused by <i>Verticillium</i> species. Department of Ophthalmology, Korea University Hospital, Korea University Medical College, Seoul, Korea - Cornea 21(2), pp.240-242. - Published report | N | - |
| IIM 2.7.1/04 B.6.1.1.4 | Neal, C.O.S., Deak, E., Chang, L.S., Gilmartin, H., Gade, L., Imanishi, M., Price, C., Brandt, M.E., Chiller, T., Balajee, S.A., | 2012 | PSEUDO-OUTBREAK OF LECANICILLIUM AND ACREMONIUM SPECIES IN ORTHOPEDIC SURGERY PATIENTS -, not applicable Journal of Clinical Microbiology, 50, 4103-4106 GLP/GEP: no Published: yes | N New data for active ingredient, not previ- ously submitted nor evaluated | - |

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| IIM 5.3.1 B.6.1.2.1 | Teale, J. | 1982 | Delayed dermal sensitisation study in the Guinea pig. Toxicol Laboratories Limited, Bromyard Road, Ledbury, Herefordshire, HR8 1LG, UK Koppert Beheer BV 97/8203 Not GLP unpublished report | N | KBS |
| IIM 5.3.2/01 B.6.1.2.2.1 IIM 5.3.3 B.6.1.2.2.3 IIM 5.3.4/01 B.6.1.2.2.4 | Hiscox, D.N., Hill, R.E., Newman A.J. | 1982a | Acute toxicity and infectivity study in rats (oral, inhalation, intraperitoneal) Toxicol Laboratories Limited, Bromyard Road, Ledbury, Herefordshire, HR8 1LG United Kingdom Koppert Beheer BV TAL/6/82 GLP unpublished report | N | KBS |
| IIM 5.3.2/02 B.6.1.2.2.1 | ██████ | 1998a | A single dose toxicity study of Mycotol TGA1 administered orally to rats ██ ██ Koppert Beheer BV 7L621 GLP unpublished report | N | KBS |
| IIM 5.3.4/02 B.6.1.2.2.2 | ██████ | 1998b | A single dose toxicity study of MYCOTAL TGA1 administered intravenously to rats. ██ Koppert Beheer BV 7L622 GLP Unpublished report | N | KBS |

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|--------------------------------|--|-------|---|--|-------------|
| IIM 5.3.4/03 B.6.1.2.2.4 | [REDACTED] [REDACTED] | 1982b | Single intraperitoneal injection study in mice with 14 day observation period. [REDACTED] [REDACTED] Koppert Beheer B.V. TAL/3/82 GLP Unpublished report | N | KBS |
| IIM 5.3.4/04 B.6.1.2.2.4 | [REDACTED] [REDACTED] | 1982c | <i>Verticillium lecanii</i> single dose intraperitoneal injection studies in mice and rats with 7 days observation periods. [REDACTED] [REDACTED] Koppert B.V. Toxicol report ref. TAL/4/82 and TAL/5/82 GLP Unpublished | N | KBS |
| IIM 5.3.5/01 B.6.1.2.3.1 | Kouvelis, V.N., C.S. Wang, A. Skrobek, S.N. Tavoularis, T.M. Butt and M.A. Typas, | 2004 | Ames and Vitotox tests: an ideal combination to determine mutagenicity and genotoxicity. Poster presented at the EC-RAFBCA-IOBC Workshop: New insights into risk assessment and registration of fungal biocontrol agents in Europe. 30th September 2004, Brussels | N | - |
| IIM 5.3.5/02 B.6.1.2.3.1 | Typas, M.A., Kouvelis, V.N., Tavoularis, S.N., Pantou M., Ghikas D. | 2004 | RAFBCA - Final report: 01.11.01-31.10.04. Partner 8. University of Athens, Greece. EU- RAFBCA project: Risk assessment of fungal biological control agents. QLK1-2001-01391. Internal report. pp. 55-65. Non-GLP Unpublished report | N | KBS |

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|--------------------------------|---|-------|---|--|-------------|
| IIM 5.3.5/03 B.6.1.2.3 | Skropek, A., Ravensberg, W.J., Ben El Hadj, N., Vey, A., Butt, T.M. | 2005 | Studies on the production of destruxins by the biological insecticides Mycotal® and Vertalec®. School of Biological Sciences, University of Wales Swansea, Singleton Park, SA2 8PP, UK, Koppert Biological Systems, POB 155, 2650 AD Berkel en Rodenrijs, The Netherlands, Institut National de la Recherche Agronomique (I.N.R.A.), Unité de Recherche de Pathologie Comparée, 30380 St Christol les Alès, France. - - - To be submitted. | N | KBS |
| IIM 5.3.5/04 B.6.1.2.3.1 | Nesslany, F. | 2002 | Mutagenicity test on <i>Salmonella typhimurium</i> His- using B.N. Ames's technique with <i>Verticillium lecanii</i> Institut Pasteur de Lille, Genetic Toxicology Laboratory, 1, rue du Professeur Calmette – BP.245, F-59019 Lille Cedex, France Koppert Beheer B.V. IPL-R 020805 GLP Unpublished report | N | KBS |
| IIM 5.3.5/05 B.6.1.2.3.1 | Nesslany, F. | 2002b | AMENDMENT NO 1 TO THE REPORT IPL-R 020805 - MUTAGENICITY TEST ON SALMONELLA TYPHIMURIUM HIS- USING B.N. AMES TECHNIQUE WITH VERTICILLIUM LECANII Koppert, IPL-R 020805 Institut Pasteur, France GLP: yes Published: no | N | KBS |

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| IIM 5.3.5/06 B.6.1.2.3.1 | Kouvelis, V.N., Wang, C., Skrobek, A., Pappas, K.M., Typas, M.A., Butt, T.M. | 2011 | ASSESSING THE CYTOTOXIC AND MUTAGENIC EFFECTS OF SECONDARY METABOLITES PRODUCED BY SEVERAL FUNGAL BIOLOGICAL CONTROL AGENTS WITH THE AMES ASSAY AND THE VITOTOX TEST -, not applicable Mutat Res, 722, 1-6 GLP/GEP: no Published: yes | N New data for active ingredient, not previously submitted nor evaluated | - |
| IIM 5.3.7.2/01 B.6.1.2.5.1 | [REDACTED] | 1991 | Sub-acute (28-day) inhalation toxicity of Mycotol in rats. [REDACTED] Koppert Beheer B.V. V91.209 GLP Unpublished report | N | KBS |
| IIM 5.5.2 B.6.2.2 | [REDACTED] | 2004 | Mutagenicity study using the micronucleus test in the rat with verticillium lecanii, strain Ve6 Koppert, FSR-IPL 040104 [REDACTED] GLP: yes Published: no | N | KBS |
| Annex III Data and Information | | | | | |
| IIM 7.1.3 B.6.1.2 | [REDACTED] | 1990 | Acute (4-hour) inhalation toxicity study with "MYCOTAL" in rats [REDACTED] [REDACTED] Beheer BV. V 90.445 GLP unpublished report | N | KBS |

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|--------------------------------|--|-------|---|---|-------------|
| IIIM 7.1.2 B.6.1.3 | [REDACTED] | 1998 | A single dermal dose toxicity study of Mycotal wettable powder in rabbits. [REDACTED] [REDACTED] Koppert Beheer BV 497 GLP unpublished report | Y | KBS |
| IIIM 7.1.4 B.6.2.1 | [REDACTED] | 1982a | Primary skin irritation study <i>Verticillium lecanii</i> S.S.P., Ref. C631239 [REDACTED] Koppert Beheer BV 96/8203 Not GLP unpublished report | N | KBS |
| IIIM 7.1.5 B.6.2.2 | [REDACTED] | 1982b | Eye irritation study <i>Verticillium lecanii</i> S.S.P. Ref. C631239. [REDACTED] Koppert Beheer BV 95/8203 no unpublished report | N | KBS |
| IIIM 5.1/02 B.6.3 | Madsen, A.M., Hansen, V.M., Meyling, N.V., Eilenberg, J. | 2007 | HUMAN EXPOSURE TO AIRBORNE FUNGI FROM GENERA USED AS BIOCONTROL AGENTS IN PLANT PRODUCTION -, not applicable Annals of Agricultural and Environmental Medicine, 14 (1), 5-24 GLP/GEP: no Published: yes | Y New data for active ingredient, not previously submitted nor evaluated | - |

A.7 Residue data

| Annex point / reference number | Author(s) | Year | Title Source (where different from company) Company, Report No GLP or GEP status (where relevant) Published or not | Data Protection Claimed* Y/N | Owner ** |
|---------------------------------------|------------------------|-------------|--|---|---------------------|
| Annex II Data and Information | | | | | |
| IIM 6.1/01 | Scholze, I. | 2016 | LITERATURE REVIEW ON LECANICILLIUM MUSCARIUM VE6 (19-79): RESIDUES IN OR ON TREATED PRODUCTS, FOOD AND FEED Koppert, 2191392-MA-06-01 GAB Consulting GmbH, Heidelberg, Germany GLP/GEP: no Published: no | Y New data for active ingredient, not previously submitted nor evaluated | KBS |
| IIM 6.1/02 B.7.1 | Groeneveld, C.N. | 2001a | Residue data <i>Verticillium lecanii</i> . OpdenKamp Adviesgroep, Koninginnegracht 23, 2514 AB, The Hague, The Netherlands. Koppert Beheer BV KO\DEN01.1703/1, pp. 9-10 - unpublished statement | Y | KBS |
| IIM 6.1/03 B.7.1 | Vidal, S., Jaber, L.R. | 2015 | ENTOMOPATHOGENIC FUNGI AS ENDOPHYTES: PLANT-ENDOPHYTE-HERBIVORE INTERACTIONS AND PROSPECTS FOR USE IN BIOLOGICAL CONTROL -, not applicable Current Science, 109, 46-54 GLP/GEP: no Published: yes | N | - |

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| IIM 6.1/04 B.7.1 | Anderson, C.M.T., McGee, P.A., Nehl, D.B., Mensah, R.K. | 2007 | THE FUNGUS LECANICILLIUM LECANII COLONISES THE PLANT GOSSYPIUM HIRSUTUM AND THE APHID APHIS GOSSYPHII -, not applicable Australasian Mycologist, 26, 65-70 GLP/GEP: no Published: yes | N | - |
| IIM 6.1/05 B.6.1 | Gurulingappa, P., Sword, G.A., Mur- doch, G., McGee, P.A. | 2010 | COLONIZATION OF CROP PLANTS BY FUNGAL EN- TOMOPATHOGENS AND THEIR EFFECTS ON TWO INSECT PESTS WHEN IN PLANTA -, not applicable Biological Control, 55, 34-41 GLP/GEP: no Published: yes | N | - |
| IIM 6.1/06 B.7.2.1 | Butt, T.M., Skrobek, A., Wang, C., Shah, F.A., Ben El Hadj, N. | 2004 | RAFBCA Partner 01, University of Wales, Swansea, UK, Final Report 01.11.01-31.10.04. University of Wales, Swansea, UK, Final Report 01.11.01- 31.10.04.; School of Biological Sciences, University of Wales Swansea, Singleton Park, SA2 8PP, UK. - QLK1-2001-01391 - unpublished statement | Y | KBS |

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|---------------------------------------|---|------|---|--|-------------|
| IIM 6.1/07; B.7.2.1 IIM 6.5; B.7.3 | Skrobek, A., Ravensberg, W.J., Ben El Hadj, N., Vey, A., Butt, T.M. | 2005 | Studies on the production of destruxins by the biological insecticides Mycotol® and Vertalec®. School of Biological Sciences, University of Wales Swansea, Singleton Park, SA2 8PP, UK, Koppert Biological Systems, POB 155, 2650 AD Berkel en Rodenrijs, The Netherlands, Institut National de la Recherche Agronomique (I.N.R.A.), Unité de Recherche de Pathologie Comparée, 30380 St Christol les Alès, France. Koppert: not applicable Koppert Biological Systems GLP/GEP: no Published: no | N | KBS |
| IIM 6.1/08 B.7.2.2 | M.D. MacQueen, R.J. Quinlan | 19xx | Residual <i>Verticillium lecanii</i> on the leaves and fruit of a tomato crop treated with Mycotol microbial Insecticide. University of Reading, Reading, Berks, UK Koppert Beheer BV - Not GLP unpublished report | Y | KBS |
| IIM 6.1/09 B.7.2.2 | Koike, M. et al., | 2004 | <i>Verticillium lecanii</i> (<i>Lecanicillium</i> spp) as epiphyte and its application to biological control of arthropod pests and diseases. IOBC/WPRS Bulletin 27(8): 41-44. | N | - |
| IIM 6.1/10 B.7.2.2 | Hall, R. A. | 1980 | Effect of relative humidity on survival of washed and unwashed conidiospores of <i>Verticillium lecanii</i> . Ecol. Applic. (1)3: 265-274. | N | - |
| IIM 6.1/12 B.7.2.2 | Ravensberg, W.J., R. van der Pas and E. Cryer, | 1998 | Insect pathogenic fungi for environmentally-friendly pest control in the glasshouse; investigating oil formulations. IOBC/WPRS Bulletin 21(4): 129-132. | N | - |

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| IIM 6.1/13 B.7.2.2 | Hora, K. and W. Ravensberg | 2007 | Persistence of Mycotal spores under greenhouse conditions on cucumber. Internal report Koppert BV. | Y | KBS |
| IIM 6.1/14 B.7.2.2 | Gardner, W.A., Oetting, R.D., Storey, G.K. | 1984 | Scheduling of <i>Verticillium lecanii</i> and benomyl applications to maintain aphid (Homoptera: Aphidae) control on chrysanthemums in greenhouses. University of Georgia, College of Agriculture Experiment Stations, Georgia Station, Griffin, Georgia 30212, USA. - Journal of Economic Entomology 77, pp. 514-518 - Published report | N | KBS |
| IIM 6.1/15 B.7.2.2 | Beerling, E.A.M., Joosten, N.N., Tolsma, J., Fransen, J.J. | 1998 | Studies of entomopathogenic fungi for control of thrips and three aphid species on glasshouse ornamentals, final report of participant 04. Research Station for Floriculture and Glasshouse Vegetables (PBG), Linnaeuslaan 2a, 1431 JV Aalsmeer, the Netherlands Koppert Beheer B.V. AIR3 CT94-1352 Not GLP unpublished report | N | KBS |
| IIM 6.1/16 B.7.2.2 | Quinlan, R.J. | 19XX | Effect of MYCOTAL on fruit ripening and storage. University of Reading, Reading, Berks, UK. Koppert Beheer B.V. - Not GLP Unpublished | Y | KBS |
| | Butt, T.M., Hadj, N.B.E., Skrobek, A., Ravensberg, W.J., Wang, C., Lange, C.M., Vey, A., Shah, U.K. and Dudley, E., | 2009 | Mass spectrometry as a tool for the selective profiling of destruxins; their first identification in <i>Lecanicillium longisporum</i> . Rapid Communications in Mass Spectrometry, 23(10), pp.1426-1434. | N | - |

| Annex point / reference number | Author(s) | Year | Title Source (where different from company) Company, Report No GLP or GEP status (where relevant) Published or not | Data Protection Claimed* Y/N | Owner ** |
|---------------------------------------|--|-------------|--|--|---------------------|
| | Dudley, E., Wang, C., Skrobek, A., Newton, R.P. and Butt, T.M., | 2004 | Mass spectrometric studies on the intrinsic stability of destruxin E from <i>Metarhizium anisopliae</i> . Rapid communications in mass spectrometry, 18(21), pp.2577-2586. | N | - |
| | Kouvelis, V.N., Wang, C., Skrobek, A., Pappas, K.M., Typas, M.A. and Butt, T.M., | 2011 | Assessing the cytotoxic and mutagenic effects of secondary metabolites produced by several fungal biological control agents with the Ames assay and the VITOTOX® test. Mutation Research/Genetic Toxicology and Environmental Mutagenesis, 722(1), pp.1-6. | N | - |
| | Skrobek, A. and Butt, T.M. | 2005 | Toxicity testing of destruxins and crude extracts from the insect-pathogenic fungus <i>Metarhizium anisopliae</i> . FEMS microbiology letters, 251(1), pp.23-28. | N | - |
| | Skrobek, A., Boss, D., Défago, G., Butt, T.M. and Maurhofer, M. | 2006 | Evaluation of different biological test systems to assess the toxicity of metabolites from fungal biocontrol agents. Toxicology letters, 161(1), pp.43-52. | N | - |
| | Skrobek, A., Shah, F.A. and Butt, T.M. | 2008 | Destruxin production by the entomogenous fungus <i>Metarhizium anisopliae</i> in insects and factors influencing their degradation. BioControl, 53(2), pp.361-373. | N | - |

A.8 Environmental fate and behaviour

| Data point | Author(s) | Year | Title Owner Report No. Source (where different from owner) GLP or GEP status Published or not | Vertebrate study Y/N | Data protec- tion claimed Y/N | Justification if data protection is claimed | Owner |
|------------|-----------------------------------|-------|---|----------------------------|-------------------------------------|---|-------|
| IIM 7/01 | Fenice M, Goo- day GW | 2006 | Mycoparasitic actions against fungi and oomycetes by a strain (CCFEE 5003) of the fungus <i>Lecanicillium muscarium</i> isolated in Continental Antarctica Annals of Microbiology 56 (1) 1-6 GLP: no published | | | | |
| IIM 7.1/01 | Beyer PU Hirte WF Sermann H | 1997a | The behaviour of the entomopathogenic fungus <i>Verticillium lecanii</i> (Zimm.) Viegas in soil: II. Longevity of <i>V. lecanii</i> in soil and mineral wood and the optimization of its survival by addition of promoting organic substances. Humboldt-Universität zu Berlin, Inst. f. Biologie, Invalidenstr. 42, D-10115 Berlin, Germany, FG Phytomedizin/Angewandte Entomologie, Dorfstr. 9, D-13051 Berlin, Germany. Zeitschrift fuer Pflanzenkrankheiten und Pflanzenschutz, 104(1): 65-74. GLP: no published | N | N | | - |

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| Data point | Author(s) | Year | Title Owner Report No. Source (where different from owner) GLP or GEP status Published or not | Vertebrate study Y/N | Data protec- tion claimed Y/N | Justification if data protection is claimed | Owner |
|------------|---|-------|---|----------------------------|-------------------------------------|---|-------|
| IIM 7.1/02 | Beyer PU Hirte WF Sermann H | 1997b | The behaviour of the entomopathogenic fungus <i>Verticillium lecanii</i> (Zimm.) Viegas in soil: I. Viability in soil at different ecological conditions. Humboldt-Universität zu Berlin, Inst. f. Biologie, Invalidenstr. 42, D-10115 Berlin, Germany, FG Phytomedizin/Angewandte Entomologie, Dorfstr. 9, D-13051 Berlin, Germany. Zeitschrift für Pflanzenkrankheiten und Pflanzenschutz no. 104(1): 54-64 GLP: no published | N | N | | - |
| IIM 7.1/03 | Gardner WA, Oetting RD, Stobey GK | 1984 | Scheduling of <i>Verticillium lecanii</i> and Benomyl applications to maintain aphid (<i>Homoptera: Aphidae</i>) control on Chrysanthemums in greenhouses. University of Georgia, College of Agriculture Experiment Stations, Georgia Station, Griffin, Georgia 30212, USA. J Econ Entomol 77:514-518 GLP: no published | N | N | | - |
| IIM 7.1/04 | Grajek W | 1994 | Sporogenesis of the entomopathogenic fungus <i>Verticillium lecanii</i> in solid-state cultures. Department of Biotechnology and Food Microbiology, Agricultural University, 60-623 Poznan, Poland. Folia Microbiologica 39: 29-32. GLP: no published | N | N | | - |
| IIM 7.1/05 | Groeneveld CN | 2001 | The persistency of <i>Verticillium lecanii</i> . OpdenKamp Adviesgroep, Koninginnegracht 23, 2514 AB, The Hague, The Netherlands Koppert Beheer B.V KO\DEN01.1703/1, pp. 2-3 GLP: no unpublished statement | N | Y | | KBS |

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| Data point | Author(s) | Year | Title Owner Report No. Source (where different from owner) GLP or GEP status Published or not | Vertebrate study Y/N | Data protec- tion claimed Y/N | Justification if data protection is claimed | Owner |
|------------|--|------|--|----------------------------|-------------------------------------|---|-------|
| IIM 7.1/06 | Luppi Mosca AM Marchisio F Fontana A | 1976 | The Myco Flora of a Horticultural Soil. University of Turin, Italy Allionia, 21: 13-32 GLP: no published | N | N | | - |
| IIM 7.1/07 | Lysek H Fassatiova O Lopez N | 1986 | Autodehelminthizing capacity of soils in two Mexican localities. Department of Biology, Medical Faculty, Palaky University, Olomouc, Czechoslovakia, Department of Cryptogamic Botany, Faculty of Natural Sciences, Charles University Prague, National University, U.N.A.M., Mexico City, Mexico Helminthologia, 23(4): 237-241. GLP: no published | N | N | | - |
| IIM 7.1/08 | Meyer SLF | 1998 | Evaluation of <i>Verticillium lecanii</i> strains applied in root drenches for suppression of <i>Meloidogyne incognita</i> on tomato. USDA-ARS, Nematology Laboratory, Beltsville, Maryland 20705-2350, USA Journal of the Helminthological Society of Washington, 65(1): 82-86 GLP: no published | N | N | | KBS |
| IIM 7.1/09 | Sermann H Beyer U Hirte W | 1996 | Long-term efficacy of a soil application of <i>Verticillium lecanii</i> against the Californian flower thrips <i>Frankliniella occidentalis</i> . (Langzeitwirkung einer Bodenapplikation von <i>Verticillium lecanii</i> gegenueber dem Kalifornischen Blutenthrips <i>Frankliniella occidentalis</i>). Humboldt_Universität zu Berlin, Landw.-Gärtnerische Fakultät, FG Phytomedizin/Angewandte Entomologie, Math.-Nat. Fakultät I, FG Mikrobiologie, Germany Mitt. Biol. Bundesanst. LandForstwirtschaft. 321: 476. GLP & publication status not stated | N | N | | - |

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| Data point | Author(s) | Year | Title Owner Report No. Source (where different from owner) GLP or GEP status Published or not | Vertebrate study Y/N | Data protec- tion claimed Y/N | Justification if data protection is claimed | Owner |
|--------------|------------------------------------|------|--|----------------------------|-------------------------------------|--|-------|
| IIM 7.1/10 | Zimmermann G | 1988 | Antagonistic Fungi in Plant Protection: Practical and Environmental Aspects. Biologische Bundesanstalt für Land- und Forstwirtschaft, Institut für biologische Schädlingsbekämpfung, Darmstadt, Germany Mitt. Biol. Bundesanst. LandForstwirtschaft. 246: 130-153. GLP: no published | N | N | | - |
| IIM 7.1/11 | Scholze, I. | 2016 | Literature review on <i>Lecanicillium muscarium</i> ve6 (19-79): fate and behaviour in the environment Koppert, 2191392-MA-07-01 GAB Consulting GmbH, Heidelberg, Germany GLP/GEP: no Published: no | N | Y | New data for active ingredient, not previously submitted nor evaluated | KBS |
| IIM 7.1/12 | Zare R, Gams W | 2001 | A revision of <i>Verticillium</i> sect. Prostrata. IV. The genera <i>Lecanicillium</i> and <i>Simplicillium</i> gen. nov. Nova Hedwigia 73:1-50 GLP: no published | N | N | | - |
| IIM 7.1.1/01 | Alavo TBC Sermann H Bochow H | 2002 | Virulence of Strains of the Entomopathogenic Fungus <i>Verticillium Lecanii</i> to Aphids: Strain Improvement Archives of Phytopathology and Plant Protection 34(6): 379-398 GLP: no published | N | N | | - |
| IIM 7.1.1/02 | Hall RA | 1981 | Laboratory studies on the effects of fungicides, acaricides and insecticides on the entomopathogenic fungus, <i>Verticillium lecanii</i> . Glasshouse Crop Research Institute, Worthing Road, Littlehampton, Sussex, UK. Entomologia Experimentalis et Applicata 29: 39-48. GLP: no published | N | N | | - |

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|--------------|-----------------------------------|------|---|----------------------------|-------------------------------------|---|-------|
| IIM 7.1.1/03 | Hetsch N Sermann H Bochow H | 2002 | Importance of sub optimal temperatures for the virulence of different geographical provenances of entomopathogenic fungus <i>Verticillium lecanii</i> (Zimm.) Viegas Med. Fac. Landbouww. Univ. Gent, 67(3): 591-599 GLP: no published | N | N | | - |
| IIM 7.1.1/04 | Hollingsworth BS | 1983 | <i>Verticillium lecanii</i> degradation and percolation in soil. Tate & Lyle PLC, Group Research and Development, Philip Lyle Memorial Research Laboratory, P.O. Box 68, Whiteknights, Reading, RG6 2BX, UK Koppert Beheer B.V. V-52 GLP: no unpublished | N | Y | | KBS |
| IIM 7.1.1/05 | Koppert Beheer B.V | 2004 | Mobility of <i>Verticillium lecanii</i> . Koppert Beheer B.V., Department R&D Microbials and Regulatory affairs, P.O. Box 155, 2650 AD Berkel en Rodenrijs, The Netherlands. Koppert Beheer B.V. Unpublished statement | N | Y | | KBS |
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A.9 Ecotoxicology data

| Data point | Author(s) | Year | Title Owner Report No. Source (where different from owner) GLP or GEP status Published or not | Vertebrate study Y/N | Data protec- tion claimed Y/N | Justification if data protection is claimed | Owner |
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| KMA 8.1/02 | Anonymous | 2006a | EFFECTS OF VERTICILLIUM LECANII STRAIN VE6 ON REPRODUCTION OF BIRDS. Koppert, not stated Koppert Biological Systems GLP/GEP: no Published: no | no | yes | New data for exist- ing formulation, not previously submitted nor evaluated | KBS |
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| KMA 8.4/04 | Anonymous | 2006c | SIDE EFFECT OF MYCOTAL & ADDIT ON EN- CARSIA FORMOSA, MACROLOPHUS CALIGI- NOSUS AND PHYTOSEIULUS PERSIMILIS Koppert, not stated Koppert Biological Systems GLP/GEP: no Published: no | no | yes | New data for ac- tive ingredient, not previously submit- ted nor evaluated | KBS |
| KMA 8.4/05 | Kamilova, F. | 2016 | DECLARATION MYCOTAL Koppert, not stated Koppert B.V., Berkel en Rodenrijs, NL GLP/GEP: no Published: no Submitted in: KMA 8.3/01 | no | yes | New data for ac- tive ingredient, not previously submit- ted nor evaluated | KBS |
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