

## Evaluation Report for Category B, Subcategory 2.1, 2.3, 2.4, 2.5, 3.11, 3.12 Application

**Application Number:** 2018-3812  
**Application:** New End-use Product (Product Chemistry) – Guarantee, Identity of Formulants, Proportion of Formulants, Formulation Type; New Product Labels - New Pests, New Site or Host  
**Product:** DeltaDust Powder  
**Registration Number:** 33495  
**Active ingredient (a.i.):** Deltamethrin  
**PMRA Document Number :** 3005103

### Purpose of Application

The purpose of this application was to register DeltaDust Powder as a restricted end-use product for the control of fleas in black-tailed prairie dog burrows.

### Chemistry Assessment

DeltaDust Powder is formulated as a dust containing deltamethrin at a concentration of 0.05%. This end-use product has a density of 1.07 g/mL and pH of 8.8. The required chemistry data for DeltaDust Powder have been provided, reviewed and found to be acceptable.

### Health Assessments

DeltaDust Powder is considered to be of low toxicity via the oral, dermal, and inhalation routes. It is considered to be minimally irritating to the eye, and non-irritating to the skin. It is not considered to be a potential dermal sensitizer.

An updated health risk assessment was conducted for chemical handlers applying DeltaDust Powder in burrows of black-tailed prairie dogs to control fleas. No risks of concern are expected when workers follow the label directions and wear the personal protective equipment identified on the label.

### Environmental Assessment

No additional risks to the environment are expected from the registration of DeltaDust Powder for the restricted and small scale application in burrows of black-tailed prairie dogs. The application rate of DeltaDust Powder is lower than the currently registered rates of other products containing the same active ingredient. Environmental concerns are mitigated through adequate statements on the product label.

## Value Assessment

Value information reviewed consisted of published scientific articles and use history, which supported the use of DeltaDust Powder to control fleas in black-tailed prairie dog burrows at a rate of 6 g product per burrow.

## Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided, and has found the information sufficient to support the registration of DeltaDust Powder.

## References

PMRA Document Number	Reference
2910960	2018, Description of Starting Materials, DACO: 3.2.1 CBI
2910961	2018, Description of the Formulation Process, DACO: 3.2.2 CBI
2910963	2003, Enforcement Analytical Method, DACO: 3.4.1 CBI
2910964	2004, Enforcement Analytical Method, DACO: 3.4.1 CBI
2910966	2018, Corrosion Characteristics, DACO: 3.5.1, 3.5.10, 3.5.11, 3.5.12, 3.5.14, 3.5.2, 3.5.3, 3.5.4, 3.5.5, 3.5.6, 3.5.7, 3.5.8 CBI
2910967	2008, Corrosion Characteristics, DACO: 3.5.1, 3.5.10, 3.5.14, 3.5.5 CBI
2910968	2006, pH, DACO: 3.5.2, 3.5.3, 3.5.4, 3.5.6, 3.5.7 CBI
2910969	2004, Explodability, DACO: 3.5.11, 3.5.12, 3.5.8 CBI
2910970	2018, Miscibility, DACO: 3.5.13, 3.5.15, 3.5.16, 3.5.9 CBI
2966990	2016, Validation of HPLC-method AM024914MF1 “determination of deltamethrin (AE F032640) and the byproduct deltamethrin isomer IV [CBI removed] in formulations” deltamethrin DP 0.2 (2 g/kg), DACO: 3.4.1
2970630	2014, Enforcement Analytical Method, DACO: 3.4.1 CBI
2910952	Seery, D.B., Biggins, D.E., Montenieri, J.A., Ensore, R.E., Tanda, D.T. and Gage, K.L., 2003, Treatment of Black Tailed Prairie Dog Burrows with Deltamethrin to Control Fleas (Insecta: Siphonaptera) and Plague, <i>J. Med. Entomol.</i> 40(5): 718-722 (2003), DACO: 10.2.3.3(C)
2910953	Biggins, D.E., Godbey, J.L., Gage, K.L., Carter, L.G., and Montenieri, J.A., 2010, Vector Control Improves Survival of Three Species of Prairie Dogs ( <i>Cynomys</i> ) in Areas Considered Enzootic for Plague, <i>Vector-Borne and Zoonotic Diseases Volume 10, Number 1, 2010</i> , DACO: 10.2.3.3(C)
2910954	Mian, L.S., Hitchcock, J.C., Madon, M.B., and Myers, C.M., 2004, Field Efficacy of Deltamethrin for Rodent Flea Control in San Bernardino County, California, U.S.A., <i>Journal of Vector Ecology</i> 29(2):212-217, DACO: 10.2.3.3(C)

<b>PMRA Document Number</b>	<b>Reference</b>
2910955	Tripp, D.W., Rocke, T.E., Runge, J.P., Abbott, R.C. and Miller, M.W., 2017, Burrow Dusting or Oral Vaccination Prevents Plague Associated Prairie Dog Colony Collapse, <i>EcoHealth</i> 14, 451–462, 2017, DACO: 10.2.3.4(C),10.3.2(B)
2910956	Jones, P.H., Biggins, D.E., Eads, D.A., Eads, S.L. and Britten, H.B., 2011, Deltamethrin Flea Control Preserves Genetic Variability of Black Tailed Prairie Dogs during a Plague Outbreak, <i>Conserv Genet</i> (2012) 13:183-195, DACO: 10.3.2(B)
2910972	1989, K Othrine WP 5 Acute oral toxicity study in the rat, DACO 4.6.1
2910976	1989, K Othrine WP 5 Acute dermal toxicity study in the rabbit, DACO 4.6.2
2910978	1990, Acute inhalation toxicity study in rats with DECIS 5% WP, DACO 4.6.3
2910979	1989, K Othrine WP 5 Primary eye irritation study in the male rabbit, DACO 4.6.4
2910981	1989, K Othrine WP 5 Primary dermal irritation study in the male rabbit, DACO 4.6.5
2910983	1990, Dermal sensitization study in guinea pigs with DECIS 5% WP, DACO 4.6.6
3011932	2019, Waiver request for a dermal sensitization study

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