

## Evaluation Report for Category B, Subcategory 2.1, 2.3 and 2.4 Application

**Application Number:** 2015-0340  
**Application:** New End-Use Product Chemistry – Guarantee, Identity of Formulants and Proportion of Formulants  
**Product:** CIVITAS TURF DEFENSE Pre-M1xed  
**Registration Number:** #####  
**Active ingredients (a.i.):** Mineral Oil  
**PMRA Document Number:** 2680168

### Purpose of Application

The purpose of this application was to register the end-use product (EP) CIVATIS TURF DEFENSE Pre-M1xed, containing mineral oil, as a broad spectrum commercial fungicide for use in treating turf grass.

### Chemistry Assessment

CIVITAS TURF DEFENSE Pre-M1xed is formulated as an emulsifiable concentrate containing mineral oil at a nominal concentration of 88.8 %. This end-use product has a density of 0.83 – 0.90 kg/L and pH of 7.51. The required chemistry data for CIVITAS TURF DEFENSE Pre-M1xed have been provided, reviewed and found to be acceptable.

### Health Assessments

A dietary exposure assessment was not required for this application.

CIVITAS TURF DEFENSE Pre-Mixed is of low acute oral, dermal, and inhalation toxicity, non-irritating to the skin and eye, and is not a dermal sensitizer.

There is no occupational concern anticipated from the use on turf because of its low toxicity profile and adequate exposure mitigation measures present on the label, which includes a restricted entry interval and instructs user to avoid breathing spray mists during application. Bystander exposure is not of concern. Post-application exposure is minimized by restricted entry until sprays have dried.

### Environmental Assessment

The uses for CIVITAS TURF DEFENSE Pre-M1xed for treating turfgrass on golf course greens, tees, fairways and roughs, as well as sports and athletic fields all fall within the range of currently registered uses on the precedent product. Thus, an increased environmental exposure is not expected and the characterization of environmental risk is covered under the

established environmental risk assessment for mineral oil. Environmental risks are mitigated through existing environmental statements and buffer zones on the product label.

### **Value Assessment**

A scientific rationale and efficacy data from five bridging trials were provided in support of the uses of CIVITAS TURF DEFENSE Pre-M1xed. Data demonstrated that CIVITAS TURF DEFENSE Pre-M1xed performed similarly to the currently precedent product against dollar spot, anthracnose and brown patch on turfgrass. Compared to the currently registered precedent product, the new EP, CIVITAS TURF DEFENSE Pre-M1xed, does not need to be tank-mixed with a pigmented spray indicator and so the users can directly apply it against the target diseases on turfgrass.

Based on the similarity in formulations and efficacy data from the bridging trials, the performance of mineral oil formulated in CIVITAS TURF DEFENSE Pre-M1xed is expected to be comparable to that of the currently registered precedent product. All use claims are supported as proposed.

### **Conclusion**

The Pest Management Regulatory Agency has completed an assessment of the information provided and is able to support the registration of CIVATIS TURF DEFENSE Pre-M1xed.

## References

PMRA Document Number	Reference
2496953	2011, Civitas One Product Identity and Composition, DACO: 3.2.1,3.2.2,3.2.3 CBI
2496954	2008, Petro-Canada Civitas 1P-Storage Stability and Corrosion Characteristics, DACO: 3.4.1,3.5.10,3.5.14 CBI
2632683	2013, Storage Stability with Corrosion Characteristics, DACO: 3.4.1, 3.5.10 CBI
2632684	2013, HPLC chromatograms, DACO: 3.4.1, 3.5.10 CBI
2662297	2012, 3.4.1_solvent.blank, DACO: 3.4.1 CBI
2677407	2016, 160811_Civitas-Stability-Study_FTIR, DACO: 3.4.1 CBI
2677408	2016, 15863-11R P53 Civitas 1P SSCC Final Report Signed AMENDED 2, DACO: 3.4.1 CBI
2632686	2010, Analytical Method 10-20B HCB in PG7 by GC-MS, DACO: 3.4.2 CBI
2632687	2011, ETAD Method 229 Determination of total content of PCBs in pigments, DACO: 3.4.2 CBI
2632685	2016, 5 Batch Analysis PETRO PC60 RPT.pdf, DACO: 3.4.2 CBI
2496955	2011, Petro-Canada Civitas 1P-Product Chemistry, DACO: 3.5.1, 3.5.11, 3.5.2, 3.5.3, 3.5.6, 3.5.9 CBI
2496957	2011, Civitas One Self-Certification of Physical/Chemical Properties, DACO: 3.5.12, 3.5.13, 3.5.15, 3.5.7, 3.5.8 CBI
2632691	2011, B157617-R2011-04-28_10-17-06_Maxxam_FlashPoint, DACO: 3.5.11 CBI
2632690	2011, Civitas 1P pH, DACO: 3.5.7 CBI
2496958	2010, Acute Oral Toxicity Study (UDP) in Rats, DACO: 4.6.1
2496959	2014, Acute Dermal Toxicity Study in Rats, DACO: 4.6.2
2496960	2014, Acute Inhalation Toxicity Study in Rats, DACO: 4.6.3
2496961	2014, Acute Eye Irritation Study in Rabbits, DACO: 4.6.4
2545462	2014, Acute Dermal Irritation Study in Rabbits, DACO: 4.6.5
2496963	2014, Skin Sensitization Study in Guinea Pigs, DACO: 4.6.6
2545464	2014, Use Description for CIVATIS TURF DEFENSE Pre-M1xed, DACO: 5.2
2496943	2014, Value summary-DACO 10 CIVITAS TD Pre-m1xed, DACO: 10.1, 10.2.1, 10.2.2, 10.3.1, 10.3.2(B), 10.3.3, 10.4, 10.5.1, 10.5.2, 10.5.3, 10.5.4, 10.5.5
2496944	2014, CIVITAS TURF DEFENSE Pre-M1xed and CIVITAS TURF DEFENSE Ready-2-Mix Read Across Argument, DACO: 10.2.3.1
2496945	2010, Management of Anthracnose Basal Rot in a Putting Green with Fungicide, DACO: 10.2.3.4(C)
2496946	2014, Suppression of Dollar Spot and Evaluation of Turfgrass Quality through the Application of Civitas and Civitas One to a Creeping Bentgrass Putting Green, DACO: 10.2.3.4(C)
2496948	2009, Developing Plant Health Management Programs for Golf Putting Surface Turf with Civitas Results from 2009, DACO: 10.2.3.4(C)
2496950	2014, Evaluation of CIVITAS fungicide mixtures for snow mold control on greens, DACO: 10.2.3.4(C)

- 2496951 2012, Creeping Bentgrass (*Agrostis stolonifera* L.) Responses to Various Civitas/Harmonizer Rates and Fungicides, DACO: 10.2.3.4(C)
- 2496952 2009, Civitas and Primo Influence Ball Roll Distance and Putting Green Performance, DACO: 10.6
- 2544314 2009, Developing Plant Health Management and dollar spot trial, DACO: 10.2.3.4(C)

ISSN: 1911-8082

**8 Her Majesty the Queen in Right of Canada, represented by the Minister of Public Works and Government Services Canada 2016**

All rights reserved. No part of this information (publication or product) may be reproduced or transmitted in any form or by any means, electronic, mechanical photocopying, recording or otherwise, or stored in a retrieval system, without prior written permission of the Minister of Public Works and Government Services Canada, Ottawa, Ontario K1A 0S5.