



Frontier Herbicide Evaluation Report for Category B, Subcategory 2.3 and 2.4 Application (Changes to End Use Product Chemistry)

Application Number: 2006-0361
Application: Category B, Subcategory 2.3 and 2.4 Application (changes to end use product chemistry)
Product: Frontier Herbicide
Registration Number: 23462
Active ingredients (A.I.): dimethenamid (MEI)
PMRA Document Number: 1430876

Background

Frontier Herbicide containing 900 g/L of dimethenamid is registered for control of annual grasses and certain broadleaf weeds in corn (field, sweet, and seed), soybeans, dry common beans, and established non-bearing grape vines. For specific details of uses, application rates and methods, precautions, restrictions, and personal protective equipment requirements, refer to the product label.

Purpose of Application

The purpose of this application is to revise the Statement of Product Specification Form (SPSF) to reduce the quantity of List 2 chemicals.

Chemistry Assessment

Frontier Herbicide is a solution containing the active ingredient 2-chloro-N-[(1-methyl-2-methoxy)ethyl]-N-(2,4-dimethyl-thien-3-yl) acetamide at a nominal concentration of 900 g/L. This product has a density of 1.134 g/mL and pH of 4.53. No additional chemistry data are required.

Health Assessments

As the precedent and requested formulations are considered to be chemically equivalent, the requested formulation is not expected to change the toxicity of the product. No additional toxicological data were required.

As no amendments were made to the product label, increase in potential occupational exposure to dimethenamid was not expected. New occupational exposure assessment was not required.

As the guarantee and use pattern were not changed by the requested alteration in formulation, residues of dimethenamid in/on the treated crops are expected to be covered by the established MRL of 0.01 ppm for dry bulb onions, and by the 0.1 ppm General Regulations (Table II, Division 15 of the Food and Drug Act and Regulations) for all other crops listed on the Frontier Herbicide label. There is no expectation of increased dietary exposure due to the changes in proportion and identity of formulants in this product.

The changes in proportion and identity of formulants of Frontier Herbicide do not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

Environmental Assessment

The changes of the formulation to reduce the quantity of List 2 chemicals is beneficial to the environments. Additional environmental data were not required.

Value Assessment

Additional value data are not required since the replacement of the emulsifier component of the end use product represents a minor changes within a same chemical class with a similar proportion.

Conclusion

The Agency has completed an assessment of the subject application and has found the information sufficient to register the alternative formulation of Frontier Herbicide

References

List of Studies/Information Submitted by Registrant

- PMRA # 1133364: Chemistry requirements for the registration of manufacturing concentrates and end-use products formulated from registered sources of active ingredients. DACO 3.1. 2005.
- PMRA # 1133365: Description of starting materials. DACO 3.2.1. 2005
- PMRA # 1133366: BAS 656 02 H (Frontier Herbicide) manufacturing summary. Reg. Doc. # 2000/1003744. DACO 3.2.2. 2000.
- PMRA # 1133367: Formation of impurities of toxicological concern. DACO 3.2.3. 2005.
- PMRA # 1133368: Establishing certified limits. DACO 3.3.1. 2005.

- PMRA # 1133369: Assay for SAN 582H in 6EC and 7.5 L emulsifiable concentrate formulations (G.C.). DACO 3.4.1. 1990.
- PMRA # 1133370: Specific gravity of Frontier Herbicide. DACO 3.5.6. 2005.
- PMRA # 1133371: Physical and chemical properties of BAS 656 02 H. Reg. Doc. # 99/10331. DACO 3.5.7. 1999
- PMRA # 1133372: Oxidizing or reducing action of Frontier Herbicide. DACO 3.5.8. 2005.
- PMRA # 1133373: Brookfield viscosity of SAN 582 H 900 EC 408 DP. Reg. Doc. # 94/11878. DACO 3.5.9. 1994.
- PMRA # 1133374: Storage stability of SAN 582 H 900 EC 408 DP. Reg. Doc. # 95/11311. DACO 3.5.10. 1995.
- PMRA # 1133375: Storage stability of SAN 582 H 900 EC 408 DP (Bonar HDPE). Reg. Doc. # 96/11020. DACO 3.5.10. 1995.
- PMRA # 1133376: Flash point of SAN 582 H 900 EC 407 DP. Reg. Doc. # 94/11873. DACO 3.5.11. 1994.
- PMRA # 1133377: Explodability of SAN 582 H 900 EC 408 DP. Reg. Doc. # 92/12405. DACO 3.5.12. 1992
- PMRA # 1133378: Explodability of SAN 582 H 900 EC 408 DP. DACO 3.5.13. 2005.
- PMRA # 1133379: Corrosion characteristics of Frontier Herbicide. DACO 3.5.14. 2005.
- PMRA # 1133380: Dielectric breakdown voltage of Frontier Herbicide. DACO 3.5.15. 2005.
- PMRA # 1248178: Waiver Request for the Exemption from Part 10, Value for a Change in Identity and Proportions of Formulants in Frontier Herbicide (Reg. No. 23462). BASF Canada Inc. May 12, 2006”.

ISSN: 1911-8082

© Her Majesty the Queen in Right of Canada, represented by the Minister of Public Works and Government Services Canada 2007

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.