

Evaluation Report for Category B, Subcategory 2.1, 3.1, 3.14, 3.4 Application

Application Number: 2012-4811
Application: B.2.1 (Product Chemistry – Guarantee)
B.3.1 (Product Labels – Application Rate Increase)
B.3.14 (Product Labels – Classifications)
B.3.4 (Product Labels – Application Method)
Product: Richgrow Moss Control
Registration Number: 31162
Active ingredients (a.i.): Ferrous Sulfate
PMRA Document Number : 2315953

Purpose of Application

The purpose of this application was to register the new commercial end-use product Richgrow Moss Control (55% ferrous sulfate heptahydrate). The product is used to control moss in lawns.

Chemistry Assessment

Richgrow Moss Control is formulated as soluble granules containing ferrous sulfate (present as ferrous sulfate heptahydrate) at a minimum concentration of 55%. This end-use product has a specific gravity of 1.898 and pH of 2.5-3.5. The chemistry requirements for this product are complete.

Health Assessments

This submission to register a new commercial herbicide is a repack of the registered technical product (Registration Number 23873); therefore, the toxicology profile of the end-use product is the same as that of the registered technical grade active ingredient.

The end-use product is likely to be slightly acutely toxic by the oral route and is of low acute toxicity by the dermal and inhalation routes. It is likely to be corrosive to eyes, irritating to skin and respiratory tract, and is not considered as a skin sensitizer.

The recommended label statements for Richgrow Moss Control (Wear safety goggles, rubber or nitrile gloves, dust mask, long sleeved shirt, long pants, socks and shoes during mixing/loading and application, as well as during clean-up and maintenance of equipment; do not allow entry to treated areas until the treated surface is dried, avoid breathing dust or spray mist) adequately address any concerns from occupational exposure to the applicator(s) and bystander(s).

Since the end-use product is intended for use on lawns as an herbicide, no food residue exposure is expected from the use.

Although there were a couple of incident reports for ferrous sulfate in domestic animals, the reported incidents did not impact the risk assessment.

Maximum Residue Limit

Since no dietary exposure to ferrous sulfate and/or its metabolites is anticipated from the proposed use, the requirement of a maximum residue limit (MRL) was considered unnecessary.

Incident Reports

Since April 26, 2007, registrants have been required by law to report incidents to the PMRA that include adverse effects to health and the environment. Information on the reporting of incidents can be found on the PMRA website. Incidents were searched and reviewed for the active ingredient ferrous sulfate.

As of July 04, 2013, the PMRA had received 3 domestic animal incidents involving ferrous sulfate. All of these incidents occurred in Canada. An association between the reported effects and suspected pesticide was noted in one incident. The dog affected in this incident accidentally ingested a product containing ferrous sulfate. The effects noted in the report were vomiting and bloody diarrhea, both of which are consistent with ferrous sulfate toxicity.

This incident report was considered in this evaluation and did not affect the risk assessment.

Environmental Assessment

The use of Richgrow Moss Control at the proposed rates will not increase the environmental exposure relative to other agricultural / industrial uses. The use of this product will not contribute significantly to the environmental loading of iron compounds. Risks to terrestrial and aquatic habitats from the proposed use pattern are expected to be limited. Environmental concerns have been mitigated through adequate statements on the product label.

Value Assessment

The directions for use and application rate of Richgrow Moss Control are consistent with other registered moss control products containing ferrous sulfate.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the available information and is able to support the registration of the new commercial end-use product Richgrow Moss Control (55% ferrous sulfate heptahydrate), to control moss in turf and lawns.

References

A. List of Studies/Information Submitted by Registrant

PMRA No.	References
2247777	2012, Product Identification, DACO: 3.1
2247778	2012, DACO: 3.3.1, 3.3.2.
2247779	2012, Chemical and Physical Properties, DACO: 3.5.1 - 3.5.15
2315246	2013, Formulating Plants Name and Address revision, DACO: 3.1.2
2247789	1993, EPA R.E.D FACTS, Iron Salts, DACO: 10.1,12.5.4
2247790	2012, Conclusion on the peer review of the pesticide risk assessment of the active substance iron sulfate, DACO: 10.1,12.5.4
2247784	2012, Use Description/Scenario (Application and Post application), DACO: 5.2
2247790	2012, Conclusion on the peer review of the pesticide risk assessment of the active substance iron sulfate, DACO: 10.1,12.5.4

B. Additional Information Considered

i) Published Information Considered

1.0 Human and Animal Health Assessment

2341630	2013, Ferrous sulfate NHPD, DACO: 4.8
1812895	2009, http://www.inchem.org/documents/jecfa/jecmono/v18je18.htm 13/, 571. Iron (WHO Food Additives Series 18) http://www.inchem.org/documents/jecfa/jecmono/v18je18.htm 13/, DACO: 4.8

ii) Unpublished Information

1.0 Human and Animal Health Assessment

2345592	2013, Summary evaluation of human and domestic animal incident reports submitted to the PMRA involving the active ingredient ferrous sulphate.
2320408	2013, List of Incident Reports.

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