Department of Pesticide Regulation

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M E M O R A N D U M

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HSM-18003
(No. assigned after issuance of memo)

FROM: Susan McCarthy
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(Original Signed by Susan McCarthy)

DATE: July 18, 2018

SUBJECT: RIMSULFURON RISK ASSESSMENT REPRIORITIZATION

In 1997, in response to a E.I. du Pont de Nemours & Company request for a Section 3 registration for the new use of the herbicide Shadeout™ on tomatoes, the Department of Pesticide Regulation (DPR) completed a risk characterization document (RCD) for the active ingredient in Shadeout™, rimsulfuron. The Rimsulfuron RCD considered potential aggregate exposure risks based on the proposed residue tolerance of 0.1 parts per million (ppm) for tomatoes and the established tolerances of 0.1 ppm on potatoes and corn. At that time, there were two registered products containing rimsulfuron—Matrix Herbicide and Shadeout™. These products were approved for use on potatoes via ground application (ground boom). There were no registered residential uses for these products (DPR 1997).

The RCD assessed potential dietary, occupational, and aggregate exposures to the general public with target Margins of Exposure (MOE) of 100. Based on toxicity studies referenced in the RCD, no additional Food Quality Protection Act uncertainty factors were recommended for deriving the MOEs. Potential exposure from drinking water was not expected due to rapid degradation of rimsulfuron in water and soil. Since rimsulfuron was not approved for use via aerial application, all occupational exposures (mixer/loaders and applicators) were based on ground application scenarios. The MOEs for all potential acute and chronic exposures were well above 100. Oncogenicity was not observed in long-term dietary exposure studies (DPR 1997). Given the conclusions of the RCD and limited use at the time the RCD was completed, mitigation for rimsulfuron was not necessary.

However, since 1997, there has been an increase in the number of registered products, use sites, and application methods. Currently there are 15 registered products containing rimsulfuron. The number of use sites has expanded to include crops such as citrus fruits, pome fruits, certain vegetables, stone fruits, and nut trees, as well as uncultivated non-ag areas, commercial areas, rights-of-way (utility, highway, etc.), turf, airports, and sewage disposal areas. Application methods have also expanded to aerial application, turf drench, chemigation, spray, and broadcast (DPR 2018a).

According to the Pesticide Use Report database, rimsulfuron use has increased significantly over the last ten years from 2,225 pounds in 2007 to 24,948 pounds in 2016 (DPR 2018b). In terms of sales, rimsulfuron has trended upward over the last ten years, peaking at 49,258 pounds sold in 2015 (DPR 2018c).

According to Pesticide Illness Surveillance Program data, nine illness cases related to rimsulfuron were reported between 2000-2015, eight of which were classified as agricultural-related cases and one which was classified as a non-agricultural case. The two most recent cases occurred in 2015 (DPR 2018d).

Due to the increase in the number of registered products, use sites, and application methods since the RCD was completed in 1997, there is potential for aggregate exposure risk for humans to increase. Further, new toxicological studies recommending additional uncertainty factors may have become available since then. Given these changes, increase in use and sales, and recent illness cases, we recommend that rimsulfuron be reprioritized for risk assessment.

Your approval of this conclusion is requested.

cc: Kevin Solari, Environmental Program Manager I
Ann Schaffner, Senior Environmental Scientist (Supervisory)
Diana Le, Environmental Scientist

APPROVAL

(original signed by M. Verder-Carlos) *July 18, 2018*
Marylou Verder-Carlos, DVM, MPVM Date
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