



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

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CC: Steve Dwinell, Vermont Agency of Agriculture, Food and Markets
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Liza Fleeson, Virginia Department of Agriculture and Consumer Services
Elizabeth Hill, U.S. Department of Agriculture (USDA), Office of the Chief Scientist

Subject: Unacceptable Use of EPA Registration No: 73291-2 (Containing 97.0 % Oxalic Acid as its
Active Ingredient) under FIFRA Section 2(ee)

Dear Ms. Wine:

This letter is in response to your request, submitted on November 29, 2022, for information from the U.S. Environmental Protection Agency (EPA) regarding the use of oxalic acid under Section 2(ee) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). With that inquiry, you included the FIFRA 2(ee) bulletin put forth by the state of Vermont at <https://agriculture.vermont.gov/sites/agriculture/files/Oxalic%202ee.pdf>. EPA has reviewed the content of this bulletin and determined that the use described therein does not fall within the scope of the exemptions from the term “to use any registered pesticide in a manner inconsistent with its labeling” set forth at FIFRA Section 2(ee). In addition, EPA has other concerns as described below.

Allowable Uses under FIFRA Section 2(ee)

Section 12(a)(2)(G) of FIFRA states that it shall be unlawful for any person to use any registered pesticide in a manner inconsistent with its labeling. Section 2(ee) of FIFRA describes some exceptions to the FIFRA definition of “to use any registered pesticide in a manner inconsistent with its labeling.” In other words, this provision presents special circumstances where it is permissible to use a pesticide in a manner for which it is not specifically labeled. These uses include:

1. Applying a pesticide at any dosage, concentration, or frequency less than specified on the labeling, unless prohibited by the labeling. However, Section 2(ee) cannot be used to increase the dosage, concentration, or frequency of an application, nor can it be used to decrease the preharvest interval;
2. Applying a pesticide against any target pest not specified on the labeling if the application is to a crop, animal, or site specified on the labeling, unless the labeling only allows use for control of labeled pests;
3. Employing any method of application not prohibited by the labeling, unless the labeling states that the product may be applied only by the methods specified on the labeling. For example, a Section 2(ee) recommendation cannot add a method of application such as chemigation or aerial application if the label specifies only ground applications;
4. Mixing a pesticide or pesticides with a fertilizer, when such a mixture is not prohibited by the labeling;
5. Any use of a pesticide in conformance with the provisions of an Experimental Use Permit (EUP), an emergency exemption, or a special local need; or
6. Any use of a pesticide in a manner that EPA determines to be consistent with the purposes of FIFRA.¹

Bulletin Language Outside the Scope of FIFRA 2(ee)

Previous to your inquiry, EPA was unaware of Vermont's FIFRA 2(ee) bulletin. EPA has now reviewed the content of this bulletin and determined that it does not fall within the scope of FIFRA Section 2(ee) for the following reasons:

1. This bulletin requires 500 g oxalic acid to be mixed with 500 g glycerin prior to application (or approximately 50 g oxalic acid with 50 g glycerin per cellulose pad, when considering use of 10 cellulose pads), which exceeds the dosage permitted on the current EPA stamped approved label of 35 g oxalic acid (mixed 1:1 with sugar). Given that the dosage of the pesticide is increased on the FIFRA 2(ee) bulletin, EPA does not consider this use to fit any exemption specified in FIFRA section 2(ee). Further, even if the dosage of pesticide on the FIFRA 2(ee) bulletin was lower than what is on the current EPA stamped approved label, the following statement appears on the current EPA stamped approved label: "This product must be used strictly in accordance with this label's precautionary statements and use directions, as well as with all applicable state and federal laws and

¹ Specifically, section 2(ee) of FIFRA, 7 U.S.C. § 136(ee), states: "The term 'to use any registered pesticide in a manner inconsistent with its labeling' means to use any registered pesticide in a manner not permitted by the labeling, except that the term shall not include (1) applying a pesticide at any dosage, concentration, or frequency less than that specified on the labeling unless the labeling specifically prohibits deviation from the specified dosage, concentration, or frequency, (2) applying a pesticide against any target pest not specified on the labeling if the application is to the crop, animal, or site specified on the labeling, unless the Administrator has required that the labeling specifically state that the pesticide may be used only for the pests specified on the labeling after the Administrator has determined that the use of the pesticide against other pests would cause an unreasonable adverse effect on the environment, (3) employing any method of application not prohibited by the labeling unless the labeling specifically states that the product may be applied only by the methods specified on the labeling, (4) mixing a pesticide or pesticides with a fertilizer when such mixture is not prohibited by the labeling, (5) any use of a pesticide in conformance with [section 136c](#), [136p](#), or [136v](#) of this title, or (6) any use of a pesticide in a manner that the Administrator determines to be consistent with the purposes of this subchapter. After March 31, 1979, the term shall not include the use of a pesticide for agricultural or forestry purposes at a dilution less than label dosage unless before or after that date the Administrator issues a regulation or advisory opinion consistent with the study provided for in section 27(b) of the Federal Pesticide Act of 1978, which regulation or advisory opinion specifically requires the use of definite amounts of dilution."

regulations.” Thus, no deviation can be made from the use directions, such as decreasing or increasing the dosage.

2. The existing label states the following: “Only apply Oxalic Acid Dihydrate as a solution when mixed with sugar-water.” (There is also an option for vaporization.) Additionally, the following statement appears on the current EPA stamped approved label: “This product must be used strictly in accordance with this label’s precautionary statements and use directions, as well as with all applicable State and Federal laws and regulations.” The FIFRA 2(ee) bulletin instructs for mixing with glycerin, which appears to be inconsistent with both of the label statements above, and such mixing does not fit any exemption specified in FIFRA section 2(ee).
3. FIFRA Section 2(ee) allows for the mixing of the pesticide product with a fertilizer (when not prohibited by the label) and does not name any other instances of mixing that are allowable. Therefore, the instructions on the bulletin to mix the pesticide with glycerin are outside the scope of FIFRA Section 2(ee).

EPA’s Additional Concerns

EPA would also like to note the following concerns:

1. The FIFRA 2(ee) bulletin instructs users to create and apply a product that will present chronic exposure of oxalic acid to bees and humans. The currently registered product results in acute exposure only.² Therefore, the EPA-registered product label may not be protective of chronic exposure.
2. The application method described by the FIFRA 2(ee) bulletin differs significantly from the currently registered product label such that it requires an application for a new product registration under FIFRA Section 3 if it were intended to be distributed or sold.
3. The FIFRA 2(ee) bulletin instructs users to add two new inert ingredients to an already registered product – glycerin and cellulose pads. Many cellulose pads contain flame retardants that might be hazardous to bees.
4. The addition of new ingredients requires submittal of an application to EPA for a new pesticide product registration. Inert ingredients must be cleared by EPA before they can be added to registered products. Therefore, the outcome of following the instructions of the FIFRA 2(ee) bulletin is the creation of a new product that requires an application for a new product registration under FIFRA Section 3 if it were intended to be distributed or sold.
5. If a person or entity is selling or distributing the product produced in accordance with the referenced 2(ee) bulletin, it would be considered production of pesticide in a facility that has not been approved for pesticide production (i.e., has not been registered as an EPA pesticide-producing establishment).

² The EPA-registered product label indicates that the product can be used when dissolved in 50% sucrose solution and then drizzled/sprayed on bees, or as a dry product that is vaporized. Either approach results in acute exposure. The FIFRA 2(ee) bulletin for oxalic acid in glycerin proposes heating glycerin to dissolve the oxalic acid, and then the solution is used to saturate “pads.” Those pads are placed in colonies. This would result in prolonged (chronic) exposure.

For more information on pesticide production, please see:

<https://www.epa.gov/compliance/pesticide-establishment-registration-and-reporting>.

If you have any questions regarding this letter, please contact Gina Burnett at burnett.gina@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Hollis". The signature is fluid and cursive, with a large loop at the end.

Linda Hollis, Chief
Biochemical Pesticides Branch
Biopesticides and Pollution
Prevention Division (7511M)
Office of Pesticide Programs