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## ENVIRONMENTAL PROTECTION AGENCY

[EPA-HQ-OPP-2014-0817; FRL-9919-30]

### Registration Review Final and Interim Decisions; Notice of Availability

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice.

**SUMMARY:** This notice announces the availability of EPA's final/interim registration review decisions. Registration review is EPA's periodic review of pesticide registrations to ensure that each pesticide continues to satisfy the statutory standard for registration, that is, that the pesticide can perform its intended function without causing unreasonable adverse effects on human health or the environment. Through this program, EPA is ensuring that each pesticide's registration is based on current scientific and other knowledge, including its effects on human health and the environment.

**FOR FURTHER INFORMATION CONTACT:** *For pesticide specific information, contact:* The Chemical Review Manager for the pesticide of interest identified in the table in Unit II.A.

*For general information on the registration review program, contact:* Richard Dumas, Pesticide Re-Evaluation Division (7508P), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001; telephone number: (703) 308-8015; email address: [dumas.richard@epa.gov](mailto:dumas.richard@epa.gov).

### SUPPLEMENTARY INFORMATION:

#### I. General Information

##### A. Does this Action Apply to Me?

This action is directed to the public in general, and may be of interest to a wide range of stakeholders including environmental, human health, farm worker, and agricultural advocates;

the chemical industry; pesticide users; and members of the public interested in the sale, distribution, or use of pesticides. Since others also may be interested, the Agency has not attempted to describe all the specific entities that may be affected by this action. If you have any questions regarding the applicability of this action to a particular entity, consult the pesticide specific contact person listed under **FOR FURTHER INFORMATION CONTACT**.

*B. How Can I Get Copies of this Document and Other Related Information?*

The docket for this action, identified by docket identification (ID) number EPA-HQ-OPP-2014-0817, is available at <http://www.regulations.gov> or at the Office of Pesticide Programs Regulatory Public Docket (OPP Docket) in the Environmental Protection Agency Docket Center (EPA/DC), West William Jefferson Clinton Bldg., Rm. 3334, 1301 Constitution Ave., NW, Washington, DC 20460-0001. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the OPP Docket is (703) 305-5805. Please review the visitor instructions and additional information about the docket available at <http://www.epa.gov/dockets>.

**II. What Action is the Agency Taking?**

Pursuant to 40 CFR 155.58(c), this notice announces the availability of EPA's final/interim registration review decision for 4-CPA & salts (Case 2115), Acetaminophen (Case 7610), Allethrin (Case 0473), Clofentezine (Case 7602), Cyromazine (Case 7439), Fosthiazate (Case 7604), Hexythiazox (Case 7404), Lactofen (Case 7210), Macleaya Extract (Case 7024), Trinexapac-ethyl (Case 7228), and Quizalofop (Case 7215).

Pursuant to 40 CFR 155.57, a registration review decision is the Agency's determination whether a pesticide meets, or does not meet, the standard for registration in FIFRA. EPA has considered for 4-CPA & salts (Case 2115), Acetaminophen (Case 7610), Allethrin (Case 0473),

Clofentezine (Case 7602), Cyromazine (Case 7439), Fosthiazate (Case 7604), Hexythiazox (Case 7404), Lactofen (Case 7210), Macleaya Extract (Case 7024), Trinexapac-ethyl (Case 7228), and Quizalofop (Case 7215) in light of the FIFRA standard for registration. For 4-CPA & salts (Case 2115), Allethrins (Case 0473). Clofentezine (Case 7602), Cyromazine (Case 7439), Fosthiazate (Case 7604), Hexythiazox (Case 7404), Lactofen (Case 7210), Macleaya Extract (Case 7024), Trinexapac-ethyl (Case 7228), and Quizalofop (Case 7215), the Final/Interim Decision documents in the docket describe the Agency's rationale for issuing a registration review final/interim decision for each of these pesticides.

In addition to the final/interim registration review decision document, the registration review docket for 4-CPA & salts, Acetaminophen, Clofentezine, Cyromazine, Fosthiazate, Hexythiazox, Lactofen, Macleaya Extract, Trinexapac-ethyl, and Quizalofop also includes other relevant documents related to the registration review of this case. The proposed final/interim registration review decisions were posted to the docket and the public was invited to submit any comments or new information.

#### Registration Review Final and Interim Decisions

<b>Registration Review Case Name and Number</b>	<b>Pesticide Docket ID Number</b>	<b>Chemical Review Manager, Telephone Number, Email Address</b>
4-CPA (Case 2115)	EPA-HQ-OPP-2014-0544	Miguel Zavala, 703-347-0504, <i>zavala.miguel@epa.gov</i>
Acetaminophen (Case 7610)	EPA-HQ-OPP-2012-0145	Bonnie Adler, 703-308-8523, <i>adler.bonnie@epa.gov</i>
Allethrins (Case 0473)	EPA-HQ-OPP-2010-0022	Marianne Mannix, 703-347-0275, <i>mannix.marianne@epa.gov</i>
Clofentezine (Case 7602)	EPA-HQ-OPP-2006-0240	Wilhelmena Livingston, 703-308-8025, <i>livingston.wilhelmena@epa.gov</i>
Cyromazine (Case 7439)	EPA HQ-OPP-2006-0108	James Parker, 703-306-0469, <i>parker.james@epa.gov</i>
Fosthiazate (Case 7604)	EPA-HQ-OPP-2009-0267	James Parker, 703-306-0469, <i>parker.james@epa.gov</i>

Hexythiazox (Case 7404)	EPA-HQ-OPP-2006-0114	Miguel Zavala, 703-347-0504, <i>zavala.miguel@epa.gov</i>
Lactofen (Case 7210)	EPA-HQ-OPP-2005-0287	Kelly Ballard, 703-305-8126, <i>ballard.kelly@epa.gov</i>
Macleaya Extract (Case 7024)	EPA-HQ-OPP-2011-0172	Susan Bartow, 703-603-0065, <i>bartow.susan@epa.gov</i>
Trinexapac-ethyl (Case 7228)	EPA-HQ-OPP-2008-0657	Brittany Pruitt, 703-347-0289, <i>pruitt.brittany@epa.gov</i>
Quizalofop (Case 7215)	EPA-HQ-OPP-2007-1089	Khue Nguyen, 703-347-0248, <i>nguyen.khue@epa.gov</i>

EPA addresses the comments or information received during the 60-day comment period in the discussion for each pesticide listed in this document. During the 60-day comment period, no public comments were received for fosthiazate or 4-CPA, while cyromazine, hexythiazox and macleaya extract each received a single comment from the Center for Biological Diversity which did not affect the Agency's interim decisions.

*4-CPA (Interim Decision).* The registration review docket for 4-CPA (EPA-HQ-OPP-2014-0544) opened in a notice published in the **Federal Register** of September 24, 2014 (79 FR 57084)(FRL-9916-39). 4-CPA is a plant growth regulator registered for use exclusively as a soaking agent for mung bean sprouts in greenhouse operations to prevent root formation. EPA conducted a qualitative assessment for both human health and environmental fate and ecological risks. No risks of concern were identified and the Agency has made a "no effect" determination for federally listed endangered and threatened (listed) species as well as a "no habitat modification" determination for all designated critical habitat. In this Interim Registration Review Decision, EPA is not making human health or environmental safety findings associated with the Endocrine Disrupter Screening Program (EDSP) for 4-CPA. Before completing this Registration Review, the Agency will make an EDSP FFDCa section 408(p) determination.

*Acetaminophen (Final Registration Review Decision).* Acetaminophen (also known as the active ingredient in Tylenol) is registered for use as a vertebrate pesticide to control the invasive

brown tree snake in Guam. The snakes ingest baited mice, which are lethal to the snake. There are no registered food/feed uses for acetaminophen, and no tolerances have been established. The Agency conducted an ecological risk and endangered species assessment for acetaminophen, and concluded, based on the limited opportunities for non-target species to be exposed, that there are no risks of concern for native, non-target organisms associated with the pesticidal use of acetaminophen. Furthermore, the Agency made a “no effects” determination for all federally listed species and a “no adverse modification of critical habitat” determination. A human health risk assessment was not conducted due to acetaminophen’s well-studied pharmaceutical use and the extremely limited opportunities for human exposure from its pesticidal use on Guam. In addition, EPA recently has determined that acetaminophen is exempt from requirements of the endocrine disruptor screening program. The Agency proposed in June of 2014 that risk mitigation measures were not needed, and several comments were received in support of that decision. This notice finalizes the Agency’s registration review decision on acetaminophen.

*Allethrins (Interim Decision).* The registration review docket for the allethrin stereoisomers (EPA-HQ-OPP-20 1 0-0022) opened in a notice published in the **Federal Register** of March 30, 2010 (75 FR 16117) (FRL-8814-4). The allethrin stereoisomers include bioallethrin, esbiol, esbiothrin, and pynamin forte. All allethrins registrations, with the exception of three products (71910-2, 71910-3, and 71910-4) were cancelled effective December 2016. The only remaining registered uses of allethrins are impregnated mats for control of flying pests such as mosquitoes.

There are no occupational, food or feed uses of allethrins. EPA conducted draft assessments for human health risks and ecological risks for the purposes of registration review. No risks of concern were identified in the human health risk assessment. The ecological risk assessment indicated that there was no reasonable expectation for the remaining registered uses of allethrins

stereoisomers to cause direct or indirect adverse effects to threatened and endangered species. A "no effect" determination was made for all federally listed species as well as a "no habitat modification" determination made for all designated critical habitat. The allethrins stereoisomers have not been evaluated under the EDSP. Therefore, the Agency's final registration review decision is dependent upon the result of the evaluation of potential endocrine disrupter risk. Pending the outcome of this action, EPA is issuing an interim registration review decision for allethrins.

*Clofentezine (Interim Decision).* The registration review docket for clofentezine (EPA-HQ-OPP-2006-0240) opened in a notice published in the **Federal Register** of March 2007 (72 FR 14548) (FRL-8118-3). Clofentezine is an acaricide registered for use to control mites. It is a liquid formulation for use on almonds, apples, apricots, cherries, Christmas trees (except California) and Christmas tree plantations, grapes (except New York), nectarines, ornamentals (greenhouse and outdoor), peaches, pears, persimmons, and walnuts. There are currently no registered residential uses of clofentezine. The Agency conducted a human health risk assessment and did not identify any risks of concern. The ecological risk assessment determined that all outdoor uses of clofentezine can potentially lead to direct adverse effects to listed and non-listed birds. As birds serve as surrogates to reptiles and terrestrial-phase amphibians, risk to these taxa is also a possibility. The use of clofentezine is not expected to pose a risk to foraging (adult) bees; however, there is a potential for risk to non-listed and listed terrestrial arthropods because of adverse effects to reproduction and development. To address this uncertainty, the Agency is requiring a chronic honey bee larval toxicity test to determine any reproductive effects to pollinators. This interim decision does not cover the EDSP component of the clofentezine registration review case. Additionally, the ecological risk assessment for clofentezine did not come to a conclusion of "no effect" to some listed species. Therefore, consultation with the Fish and Wildlife Service on the potential risk of clofentezine to some listed species will be necessary.

The Agency's final registration review decision for clofentezine will occur after an EDSP FFDC Section 408(p) determination, and after the result of the Section 7 Endangered Species consultation with the U.S. Fish and Wildlife Service as well as an assessment on the non-target exposure to bees.

*Cyromazine (Interim Decision).* The registration review docket for cyromazine (EPA-HQ-OPP-2006-0108) opened in a notice published in the **Federal Register** of March 28, 2007 (72 FR 14548) (FRL-8118-3). Cyromazine is a triazine which acts as an insect growth regulator. Cyromazine is registered for use on several agricultural crops such as beans, peppers, and tomatoes; it is registered for use on indoor ornamentals, and to control flies in manure. There are no residential uses for cyromazine. EPA conducted a human health occupational risk assessment and did not identify any risks of concern. The ecological risk assessment identified potential risks to several taxa including birds, mammals, and bees. To mitigate potential ecological risks, the Agency will increase the application interval for cyromazine use on potatoes; add label language for the onion seed treatment use; add precautionary label language to reduce risk to bees; and, increase the minimum droplet size for aerial applications. These changes will reduce estimated risks. The Agency did not reach a conclusion of “no effect” to any listed species. Therefore, consultation with the Fish and Wildlife Service (FWS) on the potential risk of cyromazine to listed species will be necessary. Cyromazine has not been evaluated under EDSP. Therefore, the Agency's final registration review decision is dependent on the results of consultation under section 7 of the Endangered Species Act (ESA) (16 U.S.C. 1536) with the FWS and the evaluation of potential endocrine disruptor risk. Pending the outcome of these actions, EPA is issuing an interim registration review decision for cyromazine.

*Fosthiazate (Interim Decision).* The registration review docket for fosthiazate (EPA-HQ-OPP-2009-0267) opened in a notice published in the **Federal Register** of June 24, 2009 (74 FR

30077) (FRL-8422-4). Fosthiazate is an organophosphate nematicide for use only on tomatoes, via drip irrigation under plastic. There are no residential uses for fosthiazate. EPA conducted a human health dietary and occupational risk assessment for fosthiazate and did not identify any risks of concern. The ecological risk assessment identified potential risks to several taxa including birds, mammals, and soil-bound terrestrial invertebrates. To mitigate potential ecological risks, the agency will modify the application directions for fosthiazate to increase the volume of water required for application. The Agency did not reach a conclusion of “no effect” to listed species. Therefore, consultation with FWS on the potential risk of fosthiazate to listed species will be necessary. Fosthiazate has not been evaluated under EDSP. Therefore, the Agency's final registration review decision is dependent on the results of consultation under ESA section 7 with FWS and the evaluation of potential endocrine disruptor risk. The EPA is issuing an interim registration review decision for fosthiazate.

*Hexythiazox (Interim Decision)*. The registration review docket for hexythiazox (EPA-HQ-OPP-2006-0114) opened in a notice published in the **Federal Register** of February 2, 2007 (72 FR 5050) (FRL-8113-1). Hexythiazox is an acaricide that acts primarily as a mite growth inhibitor/ovicide and is used to control mites. It is registered for use on a variety of agricultural crops, turf, and various residential plants. The Agency conducted a human health risk assessment and did not identify any risks of concern. The ecological risk assessment identified potential risks of concern to non-target terrestrial invertebrates (e.g., bees) and chronic risk to fish due to lack of data. The Agency is therefore requiring an honey bee larval toxicity study to determine any reproductive effects to pollinators. While chronic risk to fish and non-target invertebrates is uncertain due to data gaps, the potential risks are expected to be low as hexythiazox is applied only once per year at a low rate and is not highly persistent in the environment. The risk assessment for hexythiazox did not come to a conclusion of “no effect” to

listed species. Therefore, consultation with FWS and the National Marine Fisheries Service (NMFS) (the Services) on the potential risk of hexythiazox to listed species will be necessary. Hexythiazox has not been evaluated under the EDSP. Therefore, the Agency's final registration review decision is dependent on the result of consultation under ESA section 7 with the Services, the evaluation of potential endocrine disruptor risk, as well as an assessment on the non-target exposure to bees. Pending the outcome of these actions, EPA is planning to issue a registration review decision for hexythiazox.

*Lactofen (Interim Decision)*. The registration review docket for lactofen (EPA-HQ-OPP-2005-0287) opened in a notice published in the **Federal Register** of February 2, 2007 (72 FR 5050) (FRL-8113-1 ). Lactofen is a light dependent peroxidizing herbicide (LDPH) with uses on conifer seedlings, cotton, kenaf, peanuts, soybean, and with State-specific uses on fruiting vegetables, okra, and snap beans. There are no residential uses for lactofen. EPA conducted a human health occupational risk assessment and did not identify any risks of concern. The ecological risk assessment identified potential risks to several different taxa. However, due to the number of conservative assumptions included in the assessment, and additional use and usage information to help characterize potential risks, the Agency is not proposing mitigation changes at this time. The risk assessment for lactofen did not come to a conclusion of "no effect" to listed species. Therefore, consultation with FWS on the potential risk of lactofen to listed species will be necessary. Lactofen has not been evaluated under EDSP. Therefore, the Agency's final registration review decision is dependent on the results of consultation under ESA section 7 with FWS and the evaluation of potential endocrine disrupter risk. Pending the outcome of these actions, EPA is issuing an interim registration review decision for lactofen.

*Macleaya Extract (Interim Decision)*. The registration review docket for macleaya extract (EPA-HQ-OPP-2011-0172) opened in March 2011. Macleaya extract is a plant extract of *Macleaya cordata*, and is registered for use only in enclosed commercial greenhouses, as an

ornamental plant fungicide for the control of foliar fungal diseases. There are no registered food uses of macleaya extract. EPA completed a qualitative draft human health risk assessment for all macleaya extract uses. No risks of concern were identified. The Agency did not conduct a comprehensive ecological risk assessment since the use pattern does not likely result in outdoor exposures. However, the Agency completed a qualitative endangered species assessment for the greenhouse use. No risks of concern were identified and the Agency has made a “no effect” determination for federally listed species and designated critical habitat. Macleaya extract has not been evaluated under the EDSP. Therefore, the Agency’s final registration review decision is dependent upon the result of the evaluation of potential endocrine disruptor risk. The EPA is issuing an interim registration review decision for macleaya extract.

*Trinexapac-ethyl (Interim Decision)* The registration review docket for trinexapac-ethyl (EPA-HQ-OPP-2008-0657) opened in a notice published in the **Federal Register** of September 15, 2008 (73 FR 53244) (FRL-8381-3). Trinexapac-ethyl is a plant growth regulator registered for use by homeowners and professional applicators to manage growth of barley, grasses grown for seed, oats, sugarcane, triticale, turf grass, and wheat. Turf grass uses include athletic fields and parks, commercial and residential lawns, golf courses, and sod farms. It is also registered for application around flower beds, ornamental trees, and shrubs. EPA conducted a human health risk assessment and did not identify any risks of concern. In addition, EPA conducted an ecological risk assessment. Based on low risk estimates, and the conservative nature of the risk assessment, the Agency does not anticipate ecological risks of concern for assessed taxa from currently registered uses of trinexapac-ethyl. The Agency is not proposing mitigation changes at this time. However, the Agency is proposing that labels clarify the single-maximum application rate for liquid turf end-use products. Two comments were received for the trinexapac-ethyl proposed interim decision on the detail of the risk assessment. These comments did not change

the interim decision. The risk assessment for trinexapac-ethyl did not come to a conclusion of “no effect” to listed species. Therefore, consultation with the Services on the potential risk of trinexapac-ethyl to listed species will be necessary. Trinexapac-ethyl has not been evaluated under EDSP. Therefore, the Agency's final registration review decision is dependent on the result of consultation under ESA section 7 with FWS and the evaluation of potential endocrine disrupter risk. Pending the outcome of these actions, EPA is issuing an interim registration review decision for trinexapac-ethyl.

*Quizalofop (Interim Decision).* The registration review docket for quizalofop (EPA-HQ-OPP-2007-1089) opened in 2007. Quizalofop is a selective post-emergence herbicide and appears as two different isomers: quizalofop-ethyl and quizalofop-p-ethyl. Quizalofop-ethyl is a 50/50 racemic mixture of R- and S- enantiomers and there are no active pesticide registrations of this isomer. Quizalofop-p-ethyl is the purified R-enantiomer and the pesticidally active isomer. For the Agency's purposes, both isomers will be referred to collectively as quizalofop. Quizalofop is registered to control annual and perennial grasses in various crops including Chinese cabbage, cotton, garlic, grains, legumes, mint, pineapple, soybean, sugar beets, and sunflower. Quizalofop is also used in non-agricultural settings, such as cottonwood and poplar plantations, fencerows, roadsides, and other uncultivated areas. EPA conducted a risk assessment for both human health and ecological risk. No risks of concern were identified in the human health risk assessment. The ecological risk assessment indicated potential risks to amphibians, freshwater fish, non-target monocots, and terrestrial mammals. The Agency will modify the application directions for quizalofop to reduce spray drift risk to non-target organisms. The screening-level endangered species assessment did not come to a conclusion of “no effect” to listed species, therefore, consultation with FWS on the potential risk of quizalofop to listed species will be necessary. Quizalofop has not been evaluated under EDSP. Therefore, the Agency's final

registration review decision is dependent on the result of consultation under ESA section 7 with FWS and the evaluation of potential endocrine disruptor risk. Pending the outcome of these actions, EPA is issuing an interim registration review decision for quizalofop.

Pursuant to 40 CFR 155.58(c), the registration review case docket for 4-CPA (Case 2115), Allethrin (Case 0473), Clofentezine (Case 7602), Cyromazine (Case 7439), Fosthiazate (Case 7604), Hexythiazox (Case 7404), Lactofen (Case 7210), Macleaya Extract (Case 7024), Trinexapac-ethyl (Case 7228), and Quizalofop (Case 7215) will remain open until all actions required in the final/interim decision have been completed.

Background on the registration review program is provided at:

[http://www.epa.gov/oppsrrd1/registration\\_review](http://www.epa.gov/oppsrrd1/registration_review). Links to earlier documents related to the registration review of this pesticide are provided at: <http://www2.epa.gov/pesticide-reevaluation/individual-pesticides-registration-review>.

**Authority:** 7 U.S.C. 136 *et seq.*

Dated: December 16, 2014.

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