



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 180

[EPA-HQ-OPP-2024-0239; FRL-13069-01-OCSP]

Pyriofenone; Pesticide Tolerances

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This regulation establishes tolerances for residues of pyriofenone in or on apple; apple, wet pomace; berry, low growing, subgroup 13-07G (except cranberry); and cherry subgroup 12-12A. ISK Biosciences Corporation requested these tolerances under the Federal Food, Drug, and Cosmetic Act (FFDCA).

DATES: This regulation is effective [INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]. Objections and requests for hearings must be received on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*], and must be filed in accordance with the instructions provided in 40 CFR part 178 (see also Unit I.C. of this document).

ADDRESSES: The docket for this action, identified by docket identification (ID) number **EPA-HQ-OPP-2024-0239**, is available at <http://www.regulations.gov>. Additional information about dockets generally, along with instructions for visiting the docket in person, is available at <https://www.epa.gov/dockets>.

FOR FURTHER INFORMATION CONTACT: Charles Smith, Registration Division (7505T), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460-0001; main telephone number: (202) 566-1030; email address: RDFRNotices@epa.gov.

SUPPLEMENTARY INFORMATION:

I. Executive Summary

A. Does this Action Apply to Me?

You may be potentially affected by this action if you are an agricultural producer, food manufacturer, or pesticide manufacturer. The following list of North American Industrial Classification System (NAICS) codes is not intended to be exhaustive, but rather provides a guide to help readers determine whether this document applies to them:

- Crop production (NAICS code 111).
- Animal production (NAICS code 112).
- Food manufacturing (NAICS code 311).
- Pesticide manufacturing (NAICS code 32532).

If you have any questions regarding the applicability of this action to a particular entity, consult the person listed under **FOR FURTHER INFORMATION CONTACT**.

B. What is EPA's authority for taking this action?

EPA is issuing this rulemaking under section 408 of the Federal Food, Drug, and Cosmetic Act (FFDCA), 21 U.S.C. 346a. FFDCA section 408(b)(2)(A)(i) allows EPA to establish a tolerance (the legal limit for a pesticide chemical residue in or on a food) only if EPA determines that the tolerance is “safe.” FFDCA section 408(b)(2)(A)(ii) defines “safe” to mean that “there is a reasonable certainty that no harm will result from aggregate exposure to the pesticide chemical residue, including all anticipated dietary exposures and all other exposures for which there is reliable information.” This includes exposure through drinking water and in residential settings but does not include occupational exposure. FFDCA section 408(b)(2)(C) requires EPA to give special consideration to exposure of infants and children to the pesticide chemical residue in establishing a tolerance and to “ensure that there is a reasonable certainty that no harm will result to infants and children from aggregate exposure to the pesticide chemical residue . . .”

C. How Can I File an Objection or Hearing Request?

Under FFDCFA section 408(g), 21 U.S.C. 346a, any person may file an objection to any aspect of this regulation and may also request a hearing on those objections. If you fail to file an objection to the final rule within the time period specified in the final rule, you will have waived the right to raise any issues resolved in the final rule. You must file your objection or request a hearing on this regulation in accordance with the instructions provided in 40 CFR part 178. To ensure proper receipt by EPA, you must identify docket ID number EPA-HQ-OPP-2024-0239 in the subject line on the first page of your submission. All objections and requests for a hearing must be in writing, and must be received by the Hearing Clerk on or before **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

The EPA's Office of Administrative Law Judges (OALJ), in which the Hearing Clerk is housed, urges parties to file and serve documents by electronic means only, notwithstanding any other particular requirements set forth in other procedural rules governing those proceedings. See "Revised Order Urging Electronic Filing and Service," dated June 22, 2023, which can be found at <https://www.epa.gov/system/files/documents/2023-06/2023-06-22%20-%20revised%20order%20urging%20electronic%20filing%20and%20service.pdf>. Although the EPA's regulations require submission via U.S. Mail or hand delivery, the EPA intends to treat submissions filed via electronic means as properly filed submissions; therefore, the EPA believes the preference for submission via electronic means will not be prejudicial. When submitting documents to the OALJ electronically, a person should utilize the OALJ e-filing system at https://yosemite.epa.gov/oa/eab/eab-alj_upload.nsf.

In addition to filing an objection or hearing request with the Hearing Clerk as described in 40 CFR part 178, please submit a copy of the filing (excluding any Confidential Business Information (CBI)) for inclusion in the public docket at <https://www.regulations.gov>. Follow the online instructions for submitting comments. Do not submit electronically any information you consider to be CBI or other information whose disclosure is restricted by statute. If you wish to

include CBI in your request, please follow the applicable instructions at <https://www.epa.gov/dockets/commenting-epa-dockets#rules> and clearly mark the information that you claim to be CBI. Information not marked confidential pursuant to 40 CFR part 2 may be disclosed publicly by EPA without prior notice.

II. Petitioned-For Tolerance

In the *Federal Register* of March 11, 2025, (90 FR 11688) (FRL-11682-12-OCSP), EPA issued a document pursuant to FFDCA section 408(d)(3), 21 U.S.C. 346a(d)(3), announcing the filing of pesticide petitions (PP 4F9115 and 4F9119) by ISK Biosciences Corporation, 7470 Auburn Road, Suite A, Concord, Ohio 44077.

The petition 4F9115 requested to establish a tolerance in 40 CFR § 180.660 for residues of the fungicide pyriofenone (5-chloro-2-methoxy-4-methyl-3-pyridinyl)(2,3,4-trimethoxy-6-methylphenyl)methanone, including its metabolites and degradates in or on apple at 0.30 parts per million (ppm); apple, wet pomace at 0.69 ppm; and cherry subgroup 12-12A at 1.50 ppm.

The petition 4F9119 requested to modify the existing tolerance in 40 CFR § 180.660 for residues of pyriofenone, including its metabolites and degradates, in or on berry, low growing, subgroup 13-07G (except cranberry) at 2.0 ppm.

The March 11, 2025, *Federal Register* notice, (90 FR 11688) (FRL-11682-12-OCSP), referenced a summary of the petitions submitted by ISK Biosciences Corporation, the registrant of all currently registered pyriofenone pesticide products, which is available in docket EPA-HQ-OPP-2024-0239 at <https://www.regulations.gov>.

Eight comments were received in response to the March 11, 2025, notice of filing. The Northwest Horticultural Council and a student from Utah State University (USU) commented in support of the registration of additional uses on and establishment of tolerances for apple and cherry. Northwest Horticultural Council acknowledged the effect fungal diseases have on apple and cherry and expressed the need for management. They acknowledged that registering pyriofenone on apples and cherries will help prevent fungicide resistance amongst fungicides

with differing Fungicide Resistance Action Committee (FRAC) groups. The student from USU commented that pyriofenone, as regulated by the Agency, will be a boon rather than a threat.

Other comments from the general public expressed concern over the excessive use of pesticides on crops, persistence of the chemical in the environment, the long-term health effects to vulnerable populations, and the impact on non-target species. Several commenters requested that EPA conduct more-detailed environmental risk assessments and other research before setting the requested tolerances.

Although the Agency recognizes that some individuals believe pesticides should be banned on agricultural crops, the existing legal framework provided by Section 408 of the FFDCA authorizes EPA to establish tolerances when it determines that the tolerance is safe. Upon consideration of the validity, completeness, and reliability of the available data, as well as other factors required by the FFDCA, EPA has determined that these pyriofenone tolerances are safe. The commenters provided no information demonstrating that pyriofenone tolerances are not safe at the levels set by EPA, nor did the commenters provide any basis for concluding that the tolerances would have a disproportionate effect on any population.

Based upon review of the data supporting the petition, EPA is establishing certain requested tolerances at different levels than what were proposed. The reasons for these changes are explained in Unit IV.D.

III. Final Tolerance Action

A. Aggregate Risk Assessment and Determination of Safety

1. *EPA's Safety Determination.* Consistent with FFDCA section 408(b)(2)(D), and the factors specified in FFDCA section 408(b)(2)(D), EPA has reviewed the available scientific data and other relevant information in support of this action. EPA has sufficient data to assess the hazards of and to make a determination on aggregate exposure for pyriofenone including

exposure resulting from the tolerances established by this action. EPA's assessment of exposures and risks associated with pyriofenone follows.

In an effort to streamline its publications in the *Federal Register*, EPA is not reprinting sections that repeat what has been previously published for tolerance rulemakings of the same pesticide chemical. Where scientific information concerning a particular chemical remains unchanged, the content of those sections would not vary between tolerance rulemakings, and EPA considers referral back to those sections sufficient to provide an explanation of the information EPA considered in making its safety determination for the new rulemaking.

EPA has previously published tolerance rulemakings for pyriofenone in which EPA concluded, based on the available information, that there is a reasonable certainty that no harm would result from aggregate exposure to pyriofenone and established tolerances for residues of that chemical (84 FR 24983) (FRL-9993-11). EPA is incorporating previously published sections from these rulemakings as described further in this rulemaking, as they remain unchanged.

B. Toxicological Profile

EPA has evaluated the available toxicity data and considered its validity, completeness, and reliability as well as the relationship of the results of the studies to human risk. EPA has also considered available information concerning the variability of the sensitivities of major identifiable subgroups of consumers, including infants and children. For a discussion of the Toxicological Profile of pyriofenone, see Unit III.A. of the May 30, 2019, rulemaking (84 FR 24983) (FRL-9993-11).

C. Toxicological Points of Departure/Levels of Concern

Once a pesticide's toxicological profile is determined, EPA identifies toxicological points of departure (POD) and levels of concern to use in evaluating the risk posed by human exposure to the pesticide. For hazards that have a threshold below which there is no appreciable risk, the toxicological POD is used as the basis for derivation of reference values for risk assessment. PODs are developed based on a careful analysis of the doses in each toxicological study to

determine the dose at which no adverse effects are observed (the NOAEL) and the lowest dose at which adverse effects of concern are identified (the LOAEL). Uncertainty/safety factors are used in conjunction with the POD to calculate a safe exposure level - generally referred to as a population-adjusted dose (PAD) or a reference dose (RfD) - and a safe margin of exposure (MOE). For non-threshold risks, the Agency assumes that any amount of exposure will lead to some degree of risk. Thus, the Agency estimates risk in terms of the probability of an occurrence of the adverse effect expected in a lifetime. For more information on the general principles EPA uses in risk characterization and a complete description of the risk assessment process, see <https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/assessing-human-health-risk-pesticides>.

For a discussion of the Toxicological PODs/Levels of Concern for pyriofenone, see Unit III.B. of the May 30, 2019, rulemaking. A summary of the toxicological endpoints for pyriofenone used for human risk assessment of the instant petitions can be found at <http://www.regulations.gov> in the document “*Pyriofenone. Human Health Risk Assessment for the Petition of New Uses on Cherry Crop Subgroup 12-12A and Apple; and Petition to Amend Tolerance on Berry, Low Growing, Subgroup 13-07G, Except Cranberry*” on pages 19-20 in Docket ID number EPA-HQ-OPP-2024-0239. The PODs and LOCs for pyriofenone remain unchanged since the May 30, 2019, rulemaking.

D. *Exposure Assessment*

EPA's dietary exposure assessments have been updated to include the additional exposure from the new uses of pyriofenone on apple and cherry subgroup 12-12A and berry, low growing, subgroup 13-07G (except cranberry). An acute dietary exposure assessment was not performed as there are no appropriate toxicological effects attributable to a single exposure (dose). A conservative chronic dietary exposure assessment was performed for pyriofenone, assuming 100 percent crop treated (PCT), tolerance-level residues, and default processing factors or empirical processing factors, where available. The chronic dietary exposure assessment was conducted

using the updated Dietary Exposure Evaluation Model that incorporates the What We Eat in America consumption data from 2005-2010. The chronic estimated drinking water concentration (EDWC) of 3.9 parts per billion (ppb) is unchanged from Unit III.C.2. of the May 30, 2019, rulemaking (84 FR 24983) (FRL-9993-11) and was directly incorporated into the chronic assessment. A cancer dietary assessment was not conducted because pyriofenone is classified as “not likely to be carcinogenic to humans.” Because there are no existing or proposed residential uses associated with pyriofenone, there is not expected to be any residential handler exposure or post-application exposures.

Cumulative effects from substances with a common mechanism of toxicity for pyriofenone is outlined in Unit III.C.4. of the May 30, 2019, rulemaking (84 FR 24983) (FRL-9993-11). There have been no other changes.

Section 408(b)(2)(D)(v) of FFDCA requires that, when considering whether to establish, modify, or revoke a tolerance, the Agency consider “available information” concerning the cumulative effects of a particular pesticide's residues and “other substances that have a common mechanism of toxicity.”

E. Safety Factor for Infants and Children

1. *In general.* FFDCA section 408(b)(2)(C) provides that EPA shall apply an additional tenfold (10X) margin of safety for infants and children in the case of threshold effects to account for prenatal and postnatal toxicity and the completeness of the database on toxicity and exposure unless EPA determines based on reliable data that a different margin of safety will be safe for infants and children. This additional margin of safety is commonly referred to as the Food Quality Protection Act (FQPA) Safety Factor (SF). In applying this provision, EPA either retains the default value of 10X, or uses a different additional safety factor when reliable data available to EPA support the choice of a different factor.

2. *Conclusion.* EPA continues to conclude that there are reliable data to support the reduction of the FQPA safety factor from 10X to 1X. See Unit III.D. of the May 30, 2019,

rulemaking (84 FR 24983) (FRL-9993-11) for a discussion of the Agency's rationale for that determination.

F. Aggregate Risks and Determination of Safety

For a discussion of the aggregate risks and determination of safety of pyriofenone, see Unit III.E. of the May 30, 2019, rulemaking (84 FR 24983) (FRL-9993-11). There have been no additional changes for this final rule.

1. Acute risk. No adverse effect resulting from a single oral exposure was identified, and no acute dietary endpoint was selected. Therefore, pyriofenone is not expected to pose an acute risk.

2. Chronic risk. Using the exposure assumptions described in Unit III.E. of the May 30, 2019, final rule for chronic exposure (84 FR 24983) (FRL-9993-11), updated with the new uses assessed for the instant petitions, EPA has concluded that chronic exposure to pyriofenone from food and water will utilize 9.2% of the cPAD for children 1-2 years old, the population group with the highest exposure. Chronic aggregate risk is equivalent to chronic dietary risk, which is not of concern.

3. Short- and intermediate- term risk. There are no residential uses for pyriofenone; therefore, short- and intermediate-term residential exposure is not expected.

4. Aggregate cancer risk for U.S. population. Pyriofenone is classified as “Not Likely to Be Carcinogenic to Humans;” therefore, EPA does not expect pyriofenone exposures to pose an aggregate cancer risk.

5. Determination of safety. Therefore, based on these risk assessments and information described above, EPA concludes that there is a reasonable certainty that no harm will result to the general population, or to infants and children from aggregate exposure to pyriofenone residues. More information on this action can be found in the document titled “*Pyriofenone.*

Human Health Risk Assessment for the Petition of New Uses on Cherry Crop Subgroup 12-12A

and Apple; and Petition to Amend Tolerance on Berry, Low Growing, Subgroup 13-07G, Except Cranberry” in Docket ID number EPA-HQ-OPP-2024-0239.

IV. Other Considerations

A. Analytical Enforcement Methodology

For a discussion of the available analytical enforcement method, see Unit IV.A. of the May 30, 2019, rulemaking.

B. International Residue Limits

In making its tolerance decisions, EPA seeks to harmonize U.S. tolerances with international standards whenever possible, consistent with U.S. food safety standards and agricultural practices. EPA considers the international maximum residue limits (MRLs) established by the Codex Alimentarius Commission (Codex), as required by FFDCA section 408(b)(4). The Codex Alimentarius is a joint United Nations Food and Agriculture Organization/World Health Organization food standards program, and it is recognized as an international food safety standards-setting organization in trade agreements to which the United States is a party. EPA may establish a tolerance that is different from a Codex MRL; however, FFDCA section 408(b)(4) requires that EPA explain the reasons for departing from the Codex level.

The Codex has not established a MRL for pyriofenone on apple or cherry, subgroup 12-12A. However, the Codex has established MRLs for pyriofenone in or on berry, low growing, subgroup 13-07G at 1.5 ppm for bush berries and 0.5 ppm for low growing berries. These MRLs are different than the tolerances proposed for pyriofenone in the United States by the petition. The petitioner requested the change in tolerance to align with the Japanese MRL. This requested change was prompted by the Japanese Ministry of Agriculture, Forestry and Fisheries to assist Japanese growers in their efforts to export strawberries into the United States.

C. Revisions to Petitioned-For Tolerances

The Agency is removing the trailing zeros for the cherry subgroup 12-12A and apple proposed tolerances to be consistent with OECD rounding classes and agency standards, as well as making a non-substantive change to remove the parentheses from Berry, Low Growing, Subgroup 13-07G, except cranberry. Based on the apple highest average field trial residue in combination with the empirical processing factor for wet apple pomace, EPA is establishing a lower-than-requested tolerance of 0.5 ppm for wet apple pomace.

D. Effective and Expiration Date(s)

In general, a tolerance action is effective on the date of publication of the final rule in the *Federal Register*. For actions in the final rule that lower or revoke existing tolerances, EPA will set an expiration date for the existing tolerance of six months after the date of publication of the final rule in the *Federal Register*, in order to allow a reasonable interval for producers in exporting members of the World Trade Organization's (WTO's) Sanitary and Phytosanitary (SPS) Measures Agreement to adapt to the requirements.

V. Conclusion

Therefore, tolerances are established for residues of pyriofenone, (5-chloro-2-methoxy-4-methyl-3-pyridinyl)(2,3,4-trimethoxy-6-methylphenyl)methanone, including its metabolites and degradates, in or on apple at 0.3 ppm; apple, wet pomace at 0.5 ppm; modifying the tolerance for berry, low growing, subgroup 13-07G (except cranberry) at 2 ppm.

VI. Statutory and Executive Order Reviews

Additional information about these statutes and Executive orders can be found at <https://www.epa.gov/laws-regulations/laws-and-executive-orders>.

A. Executive Order 12866: Regulatory Planning and Review

This action is exempt from review under Executive Order 12866 (58 FR 51735, October 4, 1993), because it establishes or modifies a pesticide tolerance or a tolerance exemption under FFDCA section 408 in response to a petition submitted to the Agency. The Office of

Management and Budget (OMB) has exempted these types of actions from review under Executive Order 12866.

B. Executive Order 14192: Unleashing Prosperity Through Deregulation

Executive Order 14192 (90 FR 9065, February 6, 2025) does not apply because actions that establish a tolerance under FFDCA section 408 are exempted from review under Executive Order 12866.

C. Paperwork Reduction Act (PRA)

This action does not impose an information collection burden under the PRA 44 U.S.C. 3501 *et seq.*, because it does not contain any information collection activities.

D. Regulatory Flexibility Act (RFA)

Since tolerance actions that are established on the basis of a petition under FFDCA section 408(d), such as the tolerance in this final rule, do not require the issuance of a proposed rule, the requirements of the RFA, 5 U.S.C. 601 *et seq.*, do not apply to this action.

E. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of \$100 million or more (in 1995 dollars and adjusted annually for inflation) as described in UMRA, 2 U.S.C. 1531-1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any State, local, or Tribal governments or on the private sector.

F. Executive Order 13132: Federalism

This action does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999), because it will not have substantial direct effects on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government.

G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have Tribal implications as specified in Executive Order 13175 (65 FR 67249, November 9, 2000), because it will not have substantial direct effects on Tribal

governments, on the relationship between the Federal Government and the Indian Tribes, or on the distribution of power and responsibilities between the Federal Government and Indian Tribes.

H. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

This action is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because tolerance actions like this one are exempt from review under Executive Order 12866. However, EPA's 2021 *Policy on Children's Health* applies to this action. This rule finalizes tolerance actions under the FFDCA, which requires EPA to give special consideration to exposure of infants and children to the pesticide chemical residue in establishing a tolerance and to "ensure that there is a reasonable certainty that no harm will result to infants and children from aggregate exposure to the pesticide chemical residue ..." (FFDCA 408(b)(2)(C)). The Agency's consideration is summarized in Unit III.E.

I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution or Use

This action is not subject to Executive Order 13211 (66 FR 28355) (May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

J. National Technology Transfer Advancement Act (NTTAA)

This action does not involve technical standards that would require Agency consideration under NTTAA section 12(d), 15 U.S.C. 272.

K. Congressional Review Act (CRA)

This action is subject to the CRA, 5 U.S.C. 801 *et seq.*, and EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 180

Environmental protection, Administrative practice and procedure, Agricultural commodities, Pesticides and pests, Reporting and recordkeeping requirements.

Dated: December 18, 2025.

Charles Smith,

Director, Registration Division, Office of Pesticide Programs

For the reasons set forth in the preamble, 40 CFR chapter I is amended as follows:

PART 180—TOLERANCES AND EXEMPTIONS FOR PESTICIDE CHEMICAL RESIDUES IN FOOD

1. The authority citation for part 180 continues to read as follows:

Authority: 21 U.S.C. 321(q), 346a and 371.

2. In § 180.660, amend Table 1 to paragraph (a) by:

- a. Adding alphabetically the commodities “Apple” and “Apple, wet pomace”;
- b. Revising the commodity “Berry, low growing, subgroup 13-07G (except cranberry)”;

and

c. Adding in alphabetical order the commodity “Cherry subgroup 12-12A”.

The additions and revision read as follows:

§ 180.660 Pyriofenone; tolerances for residues.

(a) * * *

Table 1 to Paragraph (a)

Commodity	Parts per million
Apple	0.3
Apple, wet pomace	0.5
Berry, low growing, subgroup 13-07G, except cranberry	2
* * * * *	
Cherry subgroup 12-12A	1.5
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