Acetic acid; Exemption from the Requirement of a Tolerance

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This regulation amends the exemption from the requirement of a tolerance for residues of acetic acid (CAS Reg. No. 64-19-7) when used as an inert ingredient in antimicrobial pesticide formulations used on dairy and food-processing equipment and utensils, to allow for a limitation of 1200 ppm. Technology Sciences Group, Inc. on behalf of West Agro, Inc. submitted a petition to EPA under the Federal Food, Drug, and Cosmetic Act (FFDCA), requesting an amendment to the existing exemption from the requirement of a tolerance. This regulation eliminates the need to establish a maximum permissible level for residues of acetic acid.

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 the SUPPLEMENTARY INFORMATION).

**ADDRESSES:** The docket for this action, identified by docket identification (ID) number EPA-HQ-OPP-2014-0793, is available at [http://www.regulations.gov](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](http://www.epa.gov/dockets).

**FOR FURTHER INFORMATION CONTACT:** Susan Lewis, Registration Division (7505P), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001; main telephone number: (703) 305-7090; email address: RDFRNotices@epa.gov.

**SUPPLEMENTARY INFORMATION:**

I. General Information

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. Potentially affected entities may include:

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

B. How Can I Get Electronic Access to Other Related Information?


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

Under FFDCA 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. 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-2014-0793 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]. Addresses for mail and hand delivery of objections and hearing requests are provided in 40 CFR 178.25(b).

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. Information not marked confidential pursuant to 40 CFR part 2 may be disclosed publicly by EPA without prior notice. Submit the non-CBI copy of your objection or hearing request, identified by docket ID number EPA-HQ-OPP-2014-0793, by one of the following methods:

- **Federal eRulemaking Portal**: [http://www.regulations.gov](http://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.

- **Mail**: OPP Docket, Environmental Protection Agency Docket Center (EPA/DC), (28221T), 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001.

- **Hand Delivery**: To make special arrangements for hand delivery or delivery of boxed information, please follow the instructions at [http://www.epa.gov/dockets/contacts.html](http://www.epa.gov/dockets/contacts.html).

Additional instructions on commenting or visiting the docket, along with more information about dockets generally, is available at [http://www.epa.gov/dockets](http://www.epa.gov/dockets).

**II. Petition for Exemption**

In the **Federal Register** of March 4, 2015 (80 FR 11611) (FRL-9922-68), EPA issued a document pursuant to FFDCA section 408, 21 U.S.C. 346a, announcing the filing of a pesticide petition inert ingredient (IN-10766) by Technology Sciences Group, Inc. (1150 18th Street, Suite 1000 Washington, DC 20036), on behalf of West Agro, Inc. (11100 Congress Ave., Kansas City, MO 64153). The petition requested that 40 CFR 180.940(b) and (c) be amended by modifying an exemption from the requirement of a tolerance for residues of acetic acid (CAS Reg No. 64-19-7) when used as an inert ingredient to promote the active ingredient in antimicrobial pesticide formulations applied to dairy-processing equipment, food-processing equipment, and utensils to
increase the use limitation from 686 parts per million (ppm) to 1,200 ppm. That document referenced a summary of the petition prepared by Technology Sciences Group, Inc. on behalf of West Agro, Inc., the petitioner, which is available in the docket, http://www.regulations.gov. No comments were received on the notice of filing.

III. Inert Ingredient Definition

Inert ingredients are all ingredients that are not active ingredients as defined in 40 CFR 153.125 and include, but are not limited to, the following types of ingredients (except when they have a pesticidal efficacy of their own): Solvents such as alcohols and hydrocarbons; surfactants such as polyoxyethylene polymers and fatty acids; carriers such as clay and diatomaceous earth; thickeners such as carrageenan and modified cellulose; wetting, spreading, and dispersing agents; propellants in aerosol dispensers; microencapsulating agents; and emulsifiers. The term “inert” is not intended to imply nontoxicity; the ingredient may or may not be chemically active. Generally, EPA has exempted inert ingredients from the requirement of a tolerance based on the low toxicity of the individual inert ingredients.

IV. Aggregate Risk Assessment and Determination of Safety

Section 408(c)(2)(A)(i) of FFDCA allows EPA to establish an exemption from the requirement for a tolerance (the legal limit for a pesticide chemical residue in or on a food) only if EPA determines that the tolerance is “safe.” Section 408(b)(2)(A)(ii) of FFDCA 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. Section 408(b)(2)(C) of FFDCA 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....”

EPA establishes exemptions from the requirement of a tolerance only in those cases where it can be clearly demonstrated that the risks from aggregate exposure to pesticide chemical residues under reasonably foreseeable circumstances will pose no appreciable risks to human health. In order to determine the risks from aggregate exposure to pesticide inert ingredients, the Agency considers the toxicity of the inert in conjunction with possible exposure to residues of the inert ingredient through food, drinking water, and through other exposures that occur as a result of pesticide use in residential settings. If EPA is able to determine that a finite tolerance is not necessary to ensure that there is a reasonable certainty that no harm will result from aggregate exposure to the inert ingredient, an exemption from the requirement of a tolerance may be established.

Consistent with FFDCA section 408(c)(2)(A), and the factors specified in FFDCA section 408(c)(2)(B), 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 acetic acid including exposure resulting from the exemption established by this action. EPA's assessment of exposures and risks associated with acetic acid follows.

A. Toxicological Profile

EPA has evaluated the available toxicity data and considered their 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. Specific information on the
studies received and the nature of the adverse effects caused by acetic acid as well as the no-observed-adverse-effect-level (NOAEL) and the lowest-observed-adverse-effect-level (LOAEL) from the toxicity studies are discussed in this unit.

Acetic acid is of low acute dermal and inhalation toxicity in rats. It causes dermal irritation in mice and is corrosive in rabbits. It was also irritating in the eyes of rabbits. Although, reduced body weight was observed at 390 milligrams/kilograms/day (mg/kg/day) in a 90-day oral toxicity study in the rat, the reduction in weight gain was likely attributed to reduced appetite and food consumption observed in the study. Therefore, this is not considered an adverse effect. Fetal susceptibility was not observed in developmental studies in rats, mice and rabbits. It is not genotoxic, mutagenic, carcinogenic or neurotoxic. Although, increased spleen weight and increased levels of iron stored in the spleen were observed in a toxicity study via inhalation in rats, these effects are not considered an immunotoxic response, but are due to the destruction of red blood cells; therefore, there is no concern for potential immunotoxicity.

Acetic acid undergoes dissociation to the acetate anion and the H+ cations in aqueous media at pHs commonly found in the environment. Also, it is a naturally-occurring substance in plants and animals. In aerobic metabolism, acetic acid (as acetate) is a metabolite that combines with Co-enzyme A to form acetyl Co-A which subsequently enters into the Citric Acid Cycle, a common metabolic pathway in which food molecules are broken down to form energy. A major function of the Citric Acid Cycle is the oxidation of acetate. In animals, acetate is obtained from the breakdown of glucose molecules.

Specific information on the studies received and the nature of the adverse effects caused by acetic acid as well as the no observed adverse effect level (NOAEL) and the lowest observed adverse effect level (LOAEL) from the toxicity studies can be found at http://www.regulations.gov in the document "Acetic Acid; Human Health Risk Assessment and

B. 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 http://www.epa.gov/pesticides/factsheets/riskassess.htm.

Based on the widespread presence of acetic acid in human foods, and the fact that acetic acid is a normal metabolite in humans and animals and its status as a substance that is considered Generally Recognized as Safe (GRAS) by the Food and Drug Administration, toxicological endpoints of concern relevant to human exposures have not been identified for acetic acid. Thus, due to its low potential hazard and lack of hazard endpoint, the Agency has
determined that a quantitative risk assessment using safety factors applied to a point of
departure protective of an identified hazard endpoint is not appropriate. Instead, the Agency’s
assessment of the risk from acetic acid is qualitative.

C. Exposure Assessment

1. Dietary exposure from food and feed uses and drinking water. In evaluating dietary
exposure to acetic acid, EPA considered exposure under the proposed exemption from the
requirement of a tolerance. EPA assessed dietary exposures from acetic acid in food as follows:

Acetic acid is currently used as a biochemical pesticide post-harvest on grains, hays for
animal feed, and as a herbicide. Under this exemption from the requirement of a tolerance,
residues of this chemical also may be found on foods that come in contact with treated dairy and
food-processing equipment and utensils. However, a quantitative dietary exposure assessment
was not conducted since an endpoint for risk assessment was not identified.

2. From non-dietary exposure. The term “residential exposure” is used in this document
to refer to non-occupational, non-dietary exposure (e.g., textiles (clothing and diapers), carpets,
swimming pools, and hard surface disinfection on walls, floors, tables).

Acetic acid may be used in pesticide products and nonpesticide products that may be
used around the home. Since an endpoint for risk assessment was not identified, a quantitative
residential exposure assessment for acetic acid was not conducted.

3. Cumulative effects from substances with a common mechanism of toxicity. 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.”

EPA has not found acetic acid to share a common mechanism of toxicity with any other substances, and acetic acid does not appear to produce a toxic metabolite produced by other substances. For the purposes of this tolerance action, therefore, EPA has assumed that acetic acid does not have a common mechanism of toxicity with other substances. For information regarding EPA's efforts to determine which chemicals have a common mechanism of toxicity and to evaluate the cumulative effects of such chemicals, see EPA's website at http://www.epa.gov/pesticides/cumulative.

D. Safety Factor for Infants and Children

1. In general. Section 408(b)(2)(C) of FFDCA 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 Safety Factor (FQPA 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.

As part of its qualitative assessment, the Agency did not use safety factors for assessing risk, and no additional safety factor is needed for assessing risk to infants and children. Based on an assessment of acetic acid and its chemical properties, EPA has concluded that there are no toxicological endpoints of concern for the U.S. population, including infants and children.

E. Aggregate Risks and Determination of Safety
Because no toxicological endpoints of concern were identified, EPA concludes that aggregate exposure to residues of acetic acid will not pose a risk to the U.S. population, including infants and children, and that there is a reasonable certainty that no harm will result to the general population, or to infants and children from aggregate exposure to acetic acid residues.

V. Other Considerations

A. Analytical Enforcement Methodology

An analytical method is not required for enforcement purposes since the Agency is establishing an exemption from the requirement of a tolerance. EPA is establishing a limitation on the amount of acetic acid that may be used in pesticide formulations.

The limitation will be enforced through the pesticide registration process under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), 7 U.S.C. 136 et seq. EPA will not register any antimicrobial pesticide formulation used on dairy processing equipment or food-processing equipment and utensils for sale or distribution containing acetic acid at ready for use end-use concentrations exceeding 1,200 parts per million.

VI. Conclusions

Therefore, the exemption from the requirement of a tolerance for acetic acid when used as an inert ingredient in antimicrobial pesticide formulations used on dairy-processing equipment, food-processing equipment, and utensils under 40 CFR 180.940(b) and (c) are amended by an increase in the use limitation from 686 ppm to 1,200 ppm.

VII. Statutory and Executive Order Reviews
This action amends exemptions from the requirement of a tolerance under FFDCA section 408(d) 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, entitled “Regulatory Planning and Review” (58 FR 51735, October 4, 1993). Because this action has been exempted from review under Executive Order 12866, this action is not subject to Executive Order 13211, entitled “Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use” (66 FR 28355, May 22, 2001) or Executive Order 13045, entitled “Protection of Children from Environmental Health Risks and Safety Risks” (62 FR 19885, April 23, 1997). This action does not contain any information collections subject to OMB approval under the Paperwork Reduction Act (PRA) (44 U.S.C. 3501 et seq.), nor does it require any special considerations under Executive Order 12898, entitled “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” (59 FR 7629, February 16, 1994).

Since tolerances and exemptions that are established on the basis of a petition under FFDCA section 408(d), such as the exemption in this final rule, do not require the issuance of a proposed rule, the requirements of the Regulatory Flexibility Act (RFA) (5 U.S.C. 601 et seq.), do not apply.

This action directly regulates growers, food processors, food handlers, and food retailers, not States or tribes, nor does this action alter the relationships or distribution of power and responsibilities established by Congress in the preemption provisions of FFDCA section 408(n)(4). As such, the Agency has determined that this action will not have a substantial direct effect on States or tribal governments, on the relationship between the national government and the States or tribal governments, or on the distribution of power and responsibilities among
the various levels of government or between the Federal Government and Indian tribes. Thus, the Agency has determined that Executive Order 13132, entitled “Federalism” (64 FR 43255, August 10, 1999) and Executive Order 13175, entitled “Consultation and Coordination with Indian Tribal Governments” (65 FR 67249, November 9, 2000) do not apply to this action. In addition, this action does not impose any enforceable duty or contain any unfunded mandate as described under Title II of the Unfunded Mandates Reform Act (UMRA) (2 U.S.C. 1501 et seq.).

This action does not involve any technical standards that would require Agency consideration of voluntary consensus standards pursuant to section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) (15 U.S.C. 272 note).

VIII. Congressional Review Act

Pursuant to the Congressional Review Act (5 U.S.C. 801 et seq.), EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the Federal Register. 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: July 30, 2015.

Susan Lewis,

*Director, Registration Division, Office of Pesticide Programs.*
Therefore, 40 CFR chapter I is amended as follows:

PART 180--[AMENDED]

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


2. In §180.940(b) and (c), revise the entry for "Acetic acid" to read as follows:

§ 180.940 Tolerance exemptions for active and inert ingredients for use in antimicrobial formulations (Food-contact surface sanitizing solutions).

*(b)*

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<td>64-19-7</td>
<td>When ready for use, the end-use concentration is not to exceed 1200 ppm</td>
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