ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 180

[EPA-HQ-OPP-2012-0043; FRL-9934-74]

Trans-1,3,3,3-tetrafluoroprop-1-ene; Exemption from the Requirement of a Tolerance

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This regulation establishes an exemption from the requirement of a tolerance for residues of trans-1,3,3,3-tetrafluoroprop-1-ene (CAS Reg. No. 29118-24-9) when used as an inert ingredient (propellant) in pesticide formulations applied to growing crops, raw agricultural commodities after harvest, and animals, and when used as an inert ingredient in antimicrobial pesticide formulations for food-contact surface sanitizing solutions. The Acta Group, L.L.C. on behalf of Honeywell International, Inc. submitted a petition to EPA under the Federal Food, Drug, and Cosmetic Act (FFDCA), requesting establishment of an exemption from the requirement of a tolerance. This regulation eliminates the need to establish a maximum permissible level for residues of trans-1,3,3,3-tetrafluoroprop-1-ene.

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-2012-0043, 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.
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=ecfr&tpl=/ecfrbrowse/Title40/40tab_02.tpl.

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-2012-0043 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-2012-0043, 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.htm](http://www.epa.gov/dockets/contacts.htm).

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 April 4, 2012 (77 FR 20334) (FRL-9340-4), EPA issued a document pursuant to FFDCA section 408, 21 U.S.C. 346a, announcing the filing of a pesticide petition (PP 1E7938) by The Acta Group, L.L.C. (2200 Pennsylvania Avenue, N.W., Suite 100W Washington, D.C. 20037) on behalf of Honeywell International, Inc., 101 Columbia Road, Morristown, NJ 07962. The petition requested that 40 CFR 180.910, 180.930 and 180.940(a) be amended by establishing an exemption from the requirement of a tolerance for residues of trans-1,3,3,3-tetrafluoroprop-1-ene (CAS Reg. No. 29118-24-9) when used as an inert ingredient (propellant) in pesticide formulations applied to growing crops, raw agricultural commodities after harvest, and animals, and when used as an inert ingredient in antimicrobial pesticide formulations for food-contact surface sanitizing solutions, respectively. That document referenced a summary of the petition prepared by The Acta Group, L.L.C. on behalf of Honeywell International, Inc., the petitioner, which is available in the docket, [http://www.regulations.gov](http://www.regulations.gov). There were no comments received in response to 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 trans-1,3,3,3-tetrafluoroprop-1-ene including exposure resulting from the exemption established by this action. EPA’s assessment of exposures and risks associated with trans-1,3,3,3-tetrafluoroprop-1-ene 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 trans-1,3,3,3-tetrafluoroprop-1-ene 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.

Acute inhalation toxicity is low for trans-1,3,3,3-tetrafluoroprop-1-ene. Acute inhalation LD₅₀s are > 101,850 parts per million (ppm); approximately 713 milligram/kilogram (mg/kg) in rats and mice. Trans-1,3,3,3-tetrafluoroprop-1-ene is not a dermal irritant in rabbits or a sensitizer in humans.
Two subchronic toxicity studies via the inhalation route of exposure are available for trans-1,3,3,3-tetrafluoroprop-1-ene in rodents. Toxicity is not observed in rats or mice at doses as high as 5,000 ppm (approximately equivalent to 7,800 milligram/kilogram/day (mg/kg/day) human equivalent dose) following 13 weeks and 90 days of exposure, respectively. The 90-day inhalation toxicity study in mice also evaluated the carcinogenic potential of trans-1,3,3,3-tetrafluoroprop-1-ene by conducting a toxicogenomic assessment. Trans-1,3,3,3-tetrafluoroprop-1-ene is classified as non-carcinogenic by the toxicogenomic assessment at 10,000 ppm (approximately equivalent to 15,600 mg/kg/day human equivalent dose), the highest dose tested (HDT).

Developmental toxicity studies via the inhalation route are available in rats and rabbits. Neither maternal nor developmental toxicity is observed in either study up to 15,000 ppm (approximately equivalent to 23,400 mg/kg/day human equivalent dose), the HDT.

Two Ames Tests via gas exposure are available for review with trans-1,3,3,3-tetrafluoroprop-1-ene. The mouse micronucleus assay was performed via inhalation exposure. These tests are negative.

A chronic study with trans-1,3,3,3-tetrafluoroprop-1-ene is not available for review. Although a chronic toxicity study is not available, there is no concern for the lack of it because toxicity is not seen following up to 13 weeks of exposure to trans-1,3,3,3-tetrafluoroprop-1-ene at excessive doses (7,800 and 15,600 mg/kg/day). Also, toxicity is not seen in the developmental study at an excessive dose of 23,400 mg/kg/day. Therefore, the likelihood that chronic exposure to doses below the limit dose will result in toxic effects is highly unlikely.

Neurotoxicity studies are not available for review. However, evidence of neurotoxicity is not observed in the submitted inhalation studies.

Immunotoxicity studies are not available for review. However, very slight mononuclear cell infiltrates in the heart are observed in only females (3/5) at the LOAEL of ≥5,000 ppm (approximately 7,800 mg/kg/day human equivalent dose lowest dose tested) following 10 days of exposure via inhalation in Sprague Dawley rats. This effect is not dose dependent with regard to either incidence or severity. Similar effects along with increased monocyte count are observed in the heart at 15,000 ppm (approximately 23,400 mg/kg/day human equivalent dose; HDT) in a 13-week study via inhalation in Sprague Dawley rats. The NOAEL is 5,000 ppm (equivalent to 7,800 mg/kg/day human equivalent dose). This study included more rats, is conducted in the same species of rats that underwent the same route of exposure and was of longer duration (13 weeks vs 10 days). Mononuclear cell infiltrates in the heart are not observed at 5,000 ppm (equivalent to 7,800 mg/kg/day human equivalent dose) in either the male or female rat as was observed in the 10-day study. Therefore, since the incidence and severity of these effects are not dose-dependent in the 10-day study, the 13-week study is considered more reflective of toxicity resulting from exposure to trans-1,3′,3,3-tetrafluoroprop-1-ene. However, the Agency is not concerned about these effects since they occur well above the limit dose and exposure above that is highly unlikely and unrealistic.
Two studies are available for trans-1,3,3,3-tetrafluoroprop-1-ene on male rats and mice metabolism and pharmacokinetics. In rats and mice, trans-1,3,3,3-tetrafluoroprop-1-ene via the inhalation route of exposure is rapidly absorbed, metabolized and excreted. The urine is the major route of excretion. In rats, the major metabolite is S-(3, 3, 3-trifluoro-trans-propenyl)-mercaptolactic acid. In mice, the major metabolite is a presumed amino acid conjugate of 3, 3, 3-trifluoropropionic acid. Other identified metabolites are S-(3, 3, 3-trifluoro-trans-propenyl)-L-cysteine, N-acetyl-S-(3,3,3-trifluoro-trans-propenyl)-L-cysteine and 3,3,3-trifluoropropionic acid.

Specific information on the studies received on trans-1,3,3,3-tetrafluoroprop-1-ene 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, “Trans-1,3,3,3-tetrafluoroprop-1-ene; Human Health Risk Assessment and Ecological Effects Assessment to Support Proposed Exemption from the Requirement of a Tolerance When Used as Inert Ingredients in Pesticide Formulations” in docket ID number EPA-HQ-OPP-2012-0043.

B. Toxicological Points of Departure/Levels of Concern

The available toxicity studies indicate that trans-1,3,3,3-tetrafluoroprop-1-ene has very low overall toxicity. The lowest NOAEL in the database was 5,000 ppm (approximately 7,800 mg/kg/day human equivalent dose) observed in a 13 week toxicity study in rats via the inhalation route of exposure. Since signs of toxicity were not observed at well above the limit dose an endpoint of concern for risk assessment purposes was not identified.

C. Exposure Assessment

1. Dietary exposure from food and feed uses. In evaluating dietary exposure to trans-1,3,3,3-tetrafluoroprop-1-ene, EPA considered exposure under the proposed exemption from the requirement of a tolerance. EPA assessed dietary exposures from trans-1,3,3,3-tetrafluoroprop-1-ene in food as follows:

   The general population may be exposed via the diet to trans-1,3,3,3-tetrafluoroprop-1-ene as a result of eating foods containing residues of trans-1,3,3,3-tetrafluoroprop-1-ene. However, since a hazard endpoint of concern was not identified for the acute and chronic dietary assessment (food and drinking water), a dietary exposure risk assessment was not conducted.

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).

   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). Trans-1,3,3,3-tetrafluoroprop-1-ene may be used as an inert ingredient in pesticide products that could result in short- and intermediate-term residential exposure. However, based on the lack of toxicity, a quantitative exposure assessment from residential exposures was not performed.
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 trans-1,3,3,3-tetrafluoroprop-1-ene to share a common mechanism of toxicity with any other substances, and trans-1,3,3,3-tetrafluoroprop-1-ene does not appear to produce a toxic metabolite produced by other substances. For the purposes of this tolerance action, therefore, EPA has assumed that trans-1,3,3,3-tetrafluoroprop-1-ene 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**

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 the lack of effects in subchronic and developmental toxicity studies, and an assessment of trans-1,3,3,3-tetrafluoroprop-1-ene, 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 trans-1,3,3,3-tetrafluoroprop-1-ene 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 trans-1,3,3,3-tetrafluoroprop-1-ene 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 without any numerical limitation.

VI. Conclusions

Therefore, an exemption from the requirement of a tolerance is established under 40 CFR 180.910, 180.930 and 180.940(a) for trans-1,3,3,3-tetrafluoroprop-1-ene (CAS Reg. No. 29118-24-9) when used as an inert ingredient (propellant) in pesticide formulations applied to formulations applied to growing crops, raw agricultural commodities after harvest, and animals, and when used as an inert ingredient in antimicrobial pesticide formulations for food-contact surface sanitizing solutions, respectively.

VII. Statutory and Executive Order Reviews

This action establishes 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 exemptions 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: October 1, 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 §180.910, add alphabetically the inert ingredient to the table to read as follows:

§ 180.910 Inert ingredients used pre- and post-harvest; exemptions from the requirement of a tolerance.

<table>
<thead>
<tr>
<th>Inert ingredients</th>
<th>Limits</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trans-1,3,3,3-tetrafluoroprop-1-ene (CAS Reg. No. 29118-24-9)</td>
<td></td>
<td>Propellant</td>
</tr>
</tbody>
</table>

3. In §180.930 add alphabetically the inert ingredient to the table to read as follows:

§ 180.930 Inert ingredients applied to animals; exemptions from the requirement of a tolerance.

<table>
<thead>
<tr>
<th>Inert ingredients</th>
<th>Limits</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trans-1,3,3,3-tetrafluoroprop-1-ene (CAS Reg. No. 29118-24-9)</td>
<td></td>
<td>Propellant</td>
</tr>
</tbody>
</table>

4. In §180.940(a), add alphabetically the inert ingredient to the table to read as follows:

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

(a) * * *
<table>
<thead>
<tr>
<th>Pesticide Chemical</th>
<th>CAS Reg. No.</th>
<th>Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trans-1,3,3,3-tetrafluoroprop-1-ene</td>
<td>29118-24-9</td>
<td>None</td>
</tr>
<tr>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

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[FR Doc. 2015-25690 Filed: 10/8/2015 08:45 am; Publication Date: 10/9/2015]