

**ENVIRONMENTAL PROTECTION AGENCY****40 CFR Part 180**

[OPP-301080; FRL-6755-8]

**RIN 2070-AB78****Thiamethoxam; Pesticide Tolerances for Emergency Exemptions****AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Final rule.

**SUMMARY:** This regulation establishes time-limited tolerances for combined residues of thiamethoxam and its CGA-322704 metabolite in or on cotton, milk, and meat and meat byproducts of cattle, goats, horses and sheep. This action is in response to EPA's granting of an emergency exemption under section 18 of the Federal Insecticide, Fungicide, and Rodenticide Act authorizing use of the pesticide on cotton. This regulation establishes maximum permissible levels for residues of thiamethoxam in this food commodity. These tolerances will expire and are revoked on December 31, 2002.

**DATES:** This regulation is effective December 20, 2000. Objections and requests for hearings, identified by docket control number OPP-301080, must be received by EPA on or before February 20, 2001.

**ADDRESSES:** Written objections and hearing requests may be submitted by mail, in person, or by courier. Please follow the detailed instructions for each method as provided in Unit VII. of the **SUPPLEMENTARY INFORMATION**. To ensure proper receipt by EPA, your objections and hearing requests must identify docket control number OPP-301080 in the subject line on the first page of your response.

**FOR FURTHER INFORMATION CONTACT:** By mail: Stephen Schaible, Registration Division (7505C), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone number: 703-308-9362; and e-mail address: schaible.stephen@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. Potentially affected categories and entities may include, but are not limited to:

Cat-egories	NAICS	Examples of Potentially Affected Entities
Industry	111 112 311 32532	Crop production Animal production Food manufacturing Pesticide manufacturing

This listing is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this action. Other types of entities not listed in the table could also be affected. The North American Industrial Classification System (NAICS) codes have been provided to assist you and others in determining whether or not this action might apply to certain entities. If you have questions regarding the applicability of this action to a particular entity, consult the person listed under **FOR FURTHER INFORMATION CONTACT**.

**B. How Can I Get Additional Information, Including Copies of This Document and Other Related Documents?**

1. *Electronically.* You may obtain electronic copies of this document, and certain other related documents that might be available electronically, from the EPA Internet Home Page at <http://www.epa.gov/>. To access this document, on the Home Page select "Laws and Regulations," "Regulations and Proposed Rules," and then look up the entry for this document under the **Federal Register—Environmental Documents.**" You can also go directly to the **Federal Register** listings at <http://www.epa.gov/fedrgstr/>. To access the OPPTS Harmonized Guidelines referenced in this document, go directly to the guidelines at <http://www.epa.gov/opptsfrs/home/guidelin.htm>.

2. *In person.* The Agency has established an official record for this action under docket control number OPP-301080. The official record consists of the documents specifically referenced in this action, and other information related to this action, including any information claimed as Confidential Business Information (CBI). This official record includes the documents that are physically located in the docket, as well as the documents that are referenced in those documents. The public version of the official record does not include any information claimed as CBI. The public version of the official record, which includes printed, paper versions of any electronic comments submitted during an applicable comment period is available for inspection in the Public Information and Records Integrity Branch (PIRIB),

Rm. 119, Mall #2, 1921 Jefferson Davis Hwy., Arlington, VA, from 8:30 a.m. to 4 p.m., Monday through Friday, excluding legal holidays. The PIRIB telephone number is (703) 305-5805.

**II. Background and Statutory Findings**

EPA, on its own initiative, in accordance with sections 408(e) and 408(l)(6) of the Federal Food, Drug, and Cosmetic Act (FFDCA), 21 U.S.C. 346a, is establishing tolerances for combined residues of the insecticide thiamethoxam, 3-[(2-chloro-5-thiazolyl)methyl]tetrahydro-5-methyl-N-nitro-4H-1,3,5-oxadiazin-4-imine, and its CGA-322704 metabolite in or on cotton, undelinted seed at 0.1 part per million (ppm); cotton, gin byproducts at 1.5 ppm; milk at 0.02 ppm; meat of cattle, goats, horses and sheep at 0.02 ppm; and meat byproducts of cattle, goats, horses and sheep at 0.02 ppm. These tolerances will expire and are revoked on December 31, 2002. EPA will publish a document in the **Federal Register** to remove the revoked tolerances from the Code of Federal Regulations.

Section 408(l)(6) of the FFDCA requires EPA to establish a time-limited tolerance or exemption from the requirement for a tolerance for pesticide chemical residues in food that will result from the use of a pesticide under an emergency exemption granted by EPA under section 18 of FIFRA. Such tolerances can be established without providing notice or period for public comment. EPA does not intend for its actions on section 18 related tolerances to set binding precedents for the application of section 408 and the new safety standard to other tolerances and exemptions. Section 408(e) of the FFDCA allows EPA to establish a tolerance or an exemption from the requirement of a tolerance on its own initiative, i.e., without having received any petition from an outside party.

Section 408(b)(2)(A)(i) of the FFDCA 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." 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. 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. . . ."

Section 18 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) authorizes EPA to exempt any Federal or State agency from any provision of FIFRA, if EPA determines that "emergency conditions exist which require such exemption." This provision was not amended by the Food Quality Protection Act (FQPA). EPA has established regulations governing such emergency exemptions in 40 CFR part 166.

### **III. Emergency Exemption for Thiamethoxam on Cotton and FFDCA Tolerances**

According to the Applicant, cotton aphid infestations have begun to develop earlier in the production season and consistent control of this pest has become difficult to achieve with currently available materials. It is claimed that cotton aphid has developed resistance to most currently labeled and recommended insecticides in Mississippi, and laboratory assays, field experiments and field experience indicate that insecticides currently recommended for aphid control are variable in effectiveness. EPA has authorized under FIFRA section 18 the use of thiamethoxam on cotton for control of cotton aphids in Mississippi. After having reviewed this submission, EPA concurs that an emergency condition exists for this State.

As part of its assessment of this emergency exemption, EPA assessed the potential risks presented by residues of thiamethoxam and its metabolite in or on cotton, as well as the potential risk presented by secondary residues of thiamethoxam and its metabolite in milk, meat, and meat byproducts of cattle, goats, horses and sheep. In doing so, EPA considered the safety standard in FFDCA section 408(b)(2), and EPA decided that the necessary tolerances under FFDCA section 408(l)(6) would be consistent with the safety standard and with FIFRA section 18. Consistent with the need to move quickly on the emergency exemption in order to address urgent non-routine situations and to ensure that the resulting food is safe and lawful, EPA is issuing these tolerances without notice and opportunity for public comment as provided in section 408(l)(6). Although these tolerances will expire and are revoked on December 31, 2002, under FFDCA section 408(l)(5), residues of the pesticide not in excess of the amounts

specified in the tolerances remaining in or on cotton, undelinted seed; cotton, gin byproducts; milk; meat of cattle, goats, horses and sheep; and meat byproducts of cattle, goat, horses and sheep after that date will not be unlawful, provided the pesticide is applied in a manner that was lawful under FIFRA, and the residues do not exceed levels that were authorized by these tolerances at the time of that application. EPA will take action to revoke these tolerances earlier if any experience with, scientific data on, or other relevant information on this pesticide indicate that the residues are not safe.

Because these tolerances are being approved under emergency conditions, EPA has not made any decisions about whether thiamethoxam meets EPA's registration requirements for use on cotton or whether permanent tolerances for this use would be appropriate. Under these circumstances, EPA does not believe that these tolerances serve as a basis for registration of thiamethoxam by a State for special local needs under FIFRA section 24(c). Nor do these tolerances serve as the basis for any State other than Mississippi to use this pesticide under section 18 of FIFRA without following all provisions of EPA's regulations implementing section 18 as identified in 40 CFR part 166. For additional information regarding the emergency exemption for thiamethoxam, contact the Agency's Registration Division at the address provided under **FOR FURTHER INFORMATION CONTACT**.

### **IV. Aggregate Risk Assessment and Determination of Safety**

EPA performs a number of analyses to determine the risks from aggregate exposure to pesticide residues. For further discussion of the regulatory requirements of section 408 and a complete description of the risk assessment process, see the final rule on Bifenthrin Pesticide Tolerances (62 FR 62961, November 26, 1997) (FRL-5754-7).

Consistent with 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 thiamethoxam and to make a determination on aggregate exposure, consistent with section 408(b)(2), for time-limited tolerances for combined residues of thiamethoxam and its metabolite in or on cotton, undelinted seed at 0.1 ppm; cotton, gin byproducts at 1.5 ppm; milk at 0.02 ppm; meat of cattle, goats, horses and sheep at 0.02 ppm; and meat byproducts of cattle,

goats, horses and sheep at 0.02 ppm. EPA's assessment of the dietary exposures and risks associated with establishing these tolerances follows.

#### *A. Toxicological Endpoints*

The dose at which no adverse effects are observed (the NOAEL) from the toxicology study identified as appropriate for use in risk assessment is used to estimate the toxicological endpoint. However, the lowest dose at which adverse effects of concern are identified (the LOAEL) is sometimes used for risk assessment if no NOAEL was achieved in the toxicology study selected. An uncertainty factor (UF) is applied to reflect uncertainties inherent in the extrapolation from laboratory animal data to humans and in the variations in sensitivity among members of the human population as well as other unknowns. An UF of 100 is routinely used, 10X to account for interspecies differences and 10X for intraspecies differences.

For dietary risk assessment (other than cancer) the Agency uses the UF to calculate an acute or chronic reference dose (acute RfD or chronic RfD) where the RfD is equal to the NOAEL divided by the appropriate UF ( $RfD = NOAEL/UF$ ). Where an additional safety factor is retained due to concerns unique to the FQPA, this additional factor is applied to the RfD by dividing the RfD by such additional factor. The acute or chronic Population Adjusted Dose (aPAD or cPAD) is a modification of the RfD to accommodate this type of FQPA Safety Factor.

For non-dietary risk assessments (other than cancer) the UF is used to determine the level of concern (LOC). For example, when 100 is the appropriate UF (10X to account for interspecies differences and 10X for intraspecies differences) the LOC is 100. To estimate risk, a ratio of the NOAEL to exposures (margin of exposure (MOE) = NOAEL/exposure) is calculated and compared to the LOC.

The linear default risk methodology ( $Q^*$ ) is the primary method currently used by the Agency to quantify carcinogenic risk. The  $Q^*$  approach assumes that any amount of exposure will lead to some degree of cancer risk. A  $Q^*$  is calculated and used to estimate risk which represents a probability of occurrence of additional cancer cases (e.g., risk is expressed as  $1 \times 10^{-6}$  or one in a million). Under certain specific circumstances, MOE calculations will be used for the carcinogenic risk assessment. In this non-linear approach, a "point of departure" is identified below which carcinogenic effects are not expected. The point of departure is

typically a NOAEL based on an endpoint related to cancer effects though it may be a different value derived from the dose response curve.

To estimate risk, a ratio of the point of departure to exposure ( $MOE_{cancer} = \text{point of departure/exposures}$ ) is calculated. A summary of the toxicological endpoints

for thiamethoxam used for human risk assessment is shown in the following Table 1:

TABLE 1.—SUMMARY OF TOXICOLOGICAL DOSE AND ENDPOINTS FOR THIAMETHOXAM FOR USE IN HUMAN RISK ASSESSMENT

Exposure Scenario	Dose Used in Risk Assessment, UF	FQPA SF* and Level of Concern for Risk Assessment	Study and Toxicological Effects
Acute Dietary general population including infants and children	NOAEL = 100 mg/kg/day; UF = 100; Acute RfD = 1 mg/kg/day	FQPA SF = 10; aPAD = acute RfD/FQPA SF = 0.1 mg/kg/day	Acute mammalian neurotoxicity study in the rat  LOAEL = 500 mg/kg/day based on treatment-related neurobehavioral effects observed in the FOB and LMA testing (drooped palpebral closure, decreased rectal temperature and locomotor activity, increased forelimb grip strength)
Chronic Dietary all populations	NOAEL= 0.6 mg/kg/day; UF = 100; Chronic RfD = 0.006 mg/kg/day	FQPA SF = 10; cPAD = chronic RfD/FQPA SF = 0.0006 mg/kg/day	2-Generation reproduction study  LOAEL = 1.8 mg/kg/day based on increased incidence and severity of tubular atrophy in testes of $F_1$ generation males.
Cancer (oral, dermal, inhalation)	Likely carcinogen for humans based on increased incidence of hepatocellular adenomas and carcinomas in male and female mice. Quantification of risk based on most potent unit risk: male mouse liver adenoma and/or carcinoma combined tumor rate. The upper bound estimate of unit risk, $Q_{1*}$ (mg/kg/day) $^{-1}$ is $3.77 \times 10^{-2}$ in human equivalents.		

\* The reference to the FQPA Safety Factor refers to any additional safety factor retained due to concerns unique to the FQPA.

### B. Exposure Assessment

*1. Dietary exposure from food and feed uses.* Thiamethoxam is a new chemical with tolerance petitions pending at the Agency for a variety of raw agricultural commodities, but no tolerances established at this time. Risk assessments were conducted by EPA to assess dietary exposures from residues of thiamethoxam and its metabolite in cotton as well as secondary residues in milk, meat and meat byproducts resulting from potential use of treated cotton as a feed item; descriptions of these risk assessments are as follows:

*i. Acute exposure.* Acute dietary risk assessments are performed for a food-use pesticide if a toxicological study has indicated the possibility of an effect of concern occurring as a result of a 1 day or single exposure. The Dietary Exposure Evaluation Model (DEEM®) analysis evaluated the individual food consumption as reported by respondents in the USDA 1989–1992 nationwide Continuing Surveys of Food Intake by Individuals (CSFII) and accumulated exposure to the chemical for each commodity. The following assumptions were made for the acute exposure assessments: tolerance level residues and 100% of crop treated were assumed for all commodities evaluated. These assumptions are highly

conservative and result in overestimation of exposure.

*ii. Chronic exposure.* In conducting this chronic dietary risk assessment the Dietary Exposure Evaluation Model (DEEM®) analysis evaluated the individual food consumption as reported by respondents in the USDA 1989–1992 nationwide Continuing Surveys of Food Intake by Individuals (CSFII) and accumulated exposure to the chemical for each commodity. The following assumptions were made for the chronic exposure assessments: a Tier 3 risk assessment was conducted in which refined residues and percent of crop treated information were incorporated.

*iii. Cancer.* In conducting this chronic dietary risk assessment for a cancer endpoint the Dietary Exposure Evaluation Model (DEEM®) analysis evaluated the individual food consumption as reported by respondents in the USDA 1989–1992 nationwide Continuing Surveys of Food Intake by Individuals (CSFII) and accumulated exposure to the chemical for each commodity. The following assumptions were made for the chronic exposure assessments: a Tier 3 risk assessment was conducted in which refined residues and percent of crop treated information were incorporated.

*iv. Anticipated residue and percent crop treated information.* Section 408(b)(2)(E) authorizes EPA to use available data and information on the anticipated residue levels of pesticide residues in food and the actual levels of pesticide chemicals that have been measured in food. If EPA relies on such information, EPA must require that data be provided 5 years after the tolerance is established, modified, or left in effect, demonstrating that the levels in food are not above the levels anticipated. Following the initial data submission, EPA is authorized to require similar data on a time frame it deems appropriate. As required by section 408(b)(2)(E), EPA will issue a data call-in for information relating to anticipated residues to be submitted no later than 5 years from the date of issuance of this tolerance.

Section 408(b)(2)(F) states that the Agency may use data on the actual percent of food treated for assessing chronic dietary risk only if the Agency can make the following findings: Condition 1, that the data used are reliable and provide a valid basis to show what percentage of the food derived from such crop is likely to contain such pesticide residue; Condition 2, that the exposure estimate does not underestimate exposure for any significant subpopulation group; and

Condition 3, if data are available on pesticide use and food consumption in a particular area, the exposure estimate does not underestimate exposure for the population in such area. In addition, the Agency must provide for periodic evaluation of any estimates used. To provide for the periodic evaluation of the estimate of PCT as required by section 408(b)(2)(F), EPA may require registrants to submit data on PCT.

The Agency used percent crop treated (PCT) information as follows:

A Tier 3 chronic dietary exposure analysis for the insecticide thiamethoxam was based on 21% of the cotton crop being treated. The estimate of 21% was calculated by comparing the projected base acres of cotton to be treated annually to the total acres of cotton grown in the United States according to market survey data. Base acres were calculated by multiplying the percentage projected replacement of an alternative by thiamethoxam to control a specific cotton pest by the acres treated once by this alternative, summing across pests.

Anticipated residue values (ARs) for cotton commodities which were used in the chronic and cancer dietary risk assessments were calculated from field trial data. Refined concentration/dilution factors derived from a cottonseed processing study were also used. ARs for livestock commodities used projected market share estimates and average residues from field trials for feed items, in addition to residue data derived from feeding and metabolism studies.

The Agency believes that the three conditions previously discussed have been met. With respect to Condition 1, EPA finds that the PCT information described above for thiamethoxam used on cotton is reliable and has a valid basis. The PCT estimate is derived from market survey data relating to insecticide use on cotton. As the time-limited tolerances being established for cotton commodities are in conjunction with the section 18 use of thiamethoxam on cotton in Mississippi and not use nationwide, this percent of crop treated value is considered an overestimate for the purposes of this risk assessment. As to Conditions 2 and 3, regional consumption information and consumption information for significant subpopulations is taken into account through EPA's computer-based model for evaluating the exposure of significant subpopulations including several regional groups. Use of this consumption information in EPA's risk assessment process ensures that EPA's exposure estimate does not underestimate exposure for any significant

subpopulation group and allows the Agency to be reasonably certain that no regional population is exposed to residue levels higher than those estimated by the Agency. Other than the data available through national food consumption surveys, EPA does not have available information on the regional consumption of food to which thiamethoxam may be applied in a particular area.

*2. Dietary exposure from drinking water.* The Agency lacks sufficient monitoring exposure data to complete a comprehensive dietary exposure analysis and risk assessment for thiamethoxam in drinking water. Because the Agency does not have comprehensive monitoring data, drinking water concentration estimates are made by reliance on simulation or modeling taking into account data on the physical characteristics of thiamethoxam.

The Agency uses the Generic Estimated Environmental Concentration (GENEEC) or the Pesticide Root Zone/Exposure Analysis Modeling System (PRZM/EXAMS) to estimate pesticide concentrations in surface water and SCI-GROW, which predicts pesticide concentrations in groundwater. In general, EPA will use GENECC (a tier 1 model) before using PRZM/EXAMS (a tier 2 model) for a screening-level assessment for surface water. The GENECC model is a subset of the PRZM/EXAMS model that uses a specific high-end runoff scenario for pesticides. GENECC incorporates a farm pond scenario, while PRZM/EXAMS incorporate an index reservoir environment in place of the previous pond scenario. The PRZM/EXAMS model includes a percent crop area factor as an adjustment to account for the maximum percent crop coverage within a watershed or drainage basin.

None of these models include consideration of the impact processing (mixing, dilution, or treatment) of raw water for distribution as drinking water would likely have on the removal of pesticides from the source water. The primary use of these models by the Agency at this stage is to provide a coarse screen for sorting out pesticides for which it is highly unlikely that drinking water concentrations would ever exceed human health levels of concern.

Since the models used are considered to be screening tools in the risk assessment process, the Agency does not use estimated environmental concentrations (EECs) from these models to quantify drinking water exposure and risk as a %RfD or %PAD. Instead, drinking water levels of

comparison (DWLOCs) are calculated and used as a point of comparison against the model estimates of a pesticide's concentration in water. DWLOCs are theoretical upper limits on a pesticide's concentration in drinking water in light of total aggregate exposure to a pesticide in food, and from residential uses. Since DWLOCs address total aggregate exposure to thiamethoxam they are further discussed in the aggregate risk sections below.

Based on the PRZM/EXAMS and SCI-GROW models the estimated environmental concentrations (EECs) of thiamethoxam for acute exposures are estimated to be 8.0 parts per billion (ppb) for surface water and 1.55 ppb for ground water. The EECs for chronic exposures are estimated to be 0.6 ppb for surface water and 1.55 ppb for ground water.

*3. From non-dietary exposure.* The term "residential exposure" is used in this document to refer to non-occupational, non-dietary exposure (e.g., for lawn and garden pest control, indoor pest control, termiticides, and flea and tick control on pets).

Thiamethoxam is not registered for use on any sites that would result in residential exposure.

*4. Cumulative exposure to substances with a common mechanism of toxicity.* Section 408(b)(2)(D)(v) 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 does not have, at this time, available data to determine whether thiamethoxam has a common mechanism of toxicity with other substances or how to include this pesticide in a cumulative risk assessment. Unlike other pesticides for which EPA has followed a cumulative risk approach based on a common mechanism of toxicity, thiamethoxam does not appear to produce a toxic metabolite produced by other substances. For the purposes of this tolerance action, therefore, EPA has not assumed that thiamethoxam has 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 the final rule for Bifenthrin Pesticide Tolerances (62 FR 62961, November 26, 1997).

### C. Safety Factor for Infants and Children

**i. Safety factor for infants and children—i.** In general, FFDCA section 408 provides that EPA shall apply an additional tenfold 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 data base on toxicity and exposure unless EPA determines that a different margin of safety will be safe for infants and children. Margins of safety are incorporated into EPA risk assessments either directly through use of a margin of exposure (MOE) analysis or through using uncertainty (safety) factors in calculating a dose level that poses no appreciable risk to humans.

**ii. Developmental toxicity studies.** There is no quantitative or qualitative evidence of increased susceptibility of rats or rabbit fetuses to *in utero* exposure to thiamethoxam in the rat or rabbit developmental toxicity studies. The developmental NOAELs are either higher than or equal to the maternal NOAELs. The toxicological effects in fetuses do not appear to be any more severe than those in the dams or does.

**iii. Reproductive toxicity study.** In the two-generation reproduction study, there is evidence of increased quantitative susceptibility for male pups. Reproductive effects in males appear in the F<sub>1</sub> generation in the form of increased incidence and severity of testicular tubular atrophy at the LOAEL of 1.8 mg/kg/day (NOAEL: 0.6 mg/kg/day). The increase in severity is based on an increased incidence of grade 2 minute focal tubular changes. These animals were exposed to the test material *in utero* whereas the F<sub>0</sub> males, which did not have these effects, were not exposed to the test material *in utero*. For parents, the NOAEL is 1.8 mg/kg/day for hyaline changes in renal tubules at the LOAEL of 61 mg/kg/day.

**iv. Prenatal and postnatal sensitivity.** Since no data are available to indicate how the testicular effects occur, whether or not they can be considered an endocrine effect (effects are observed in other endocrine organs in three species), or whether or not they can definitively

be considered adverse, the Agency has determined that there is evidence of increased quantitative susceptibility for male pups when compared to the parents.

**v. Conclusion.** The toxicity data base for thiamethoxam is incomplete. Based on effects on endocrine organs observed across species, the significant decrease in alanine amino transferase levels in the companion animal studies and in the dog studies, transient clinical signs of neurotoxicity in several studies, and the fact that the mode of action of this insecticide on insects is through a neurologic mechanism, a developmental neurotoxicity study is being required. Exposure data are complete or are estimated based on data that reasonably accounts for potential exposures. The FQPA safety factor was retained at 10x in assessing the acute and chronic risk posed by this chemical for all populations based on increased susceptibility of male pups in the reproduction study, lack of key measurements in the reproduction study and the need for a developmental neurotoxicity study.

### D. Aggregate Risks and Determination of Safety

To estimate total aggregate exposure to a pesticide from food, drinking water, and residential uses, the Agency calculates DWLOCs which are used as a point of comparison against the model estimates of a pesticide's concentration in water (EECs). DWLOC values are not regulatory standards for drinking water. DWLOCs are theoretical upper limits on a pesticide's concentration in drinking water in light of total aggregate exposure to a pesticide in food and residential uses. In calculating a DWLOC, the Agency determines how much of the acceptable exposure (i.e., the PAD) is available for exposure through drinking water e.g., allowable chronic water exposure (mg/kg/day) = cPAD - (average food + chronic non-dietary, non-occupational exposure). This allowable exposure through drinking water is used to calculate a DWLOC.

A DWLOC will vary depending on the toxic endpoint, drinking water consumption, and body weights. Default

body weights and consumption values as used by the USEPA Office of Water are used to calculate DWLOCs: 2L/70 kg (adult male), 2L/60 kg (adult female), and 1L/10 kg (child). Default body weights and drinking water consumption values vary on an individual basis. This variation will be taken into account in more refined screening-level and quantitative drinking water exposure assessments. Different populations will have different DWLOCs. Generally, a DWLOC is calculated for each type of risk assessment used: acute, short-term, intermediate-term, chronic, and cancer.

When EECs for surface water and groundwater are less than the calculated DWLOCs, OPP concludes with reasonable certainty that exposures to thiamethoxam in drinking water (when considered along with other sources of exposure for which OPP has reliable data) would not result in unacceptable levels of aggregate human health risk at this time. Because OPP considers the aggregate risk resulting from multiple exposure pathways associated with a pesticide's uses, levels of comparison in drinking water may vary as those uses change. If new uses are added in the future, OPP will reassess the potential impacts of thiamethoxam on drinking water as a part of the aggregate risk assessment process.

**1. Acute risk.** Using the Tier 1 exposure assumptions discussed in this unit for acute exposure, the acute dietary exposure from food to thiamethoxam and its metabolite will occupy less than 1% of the aPAD for the U.S. population, 2% of the aPAD for non-nursing infants less than 1 year old and 1% of the aPAD for children 1–6 years old at the 95th percentile of exposure. In addition, despite the potential for acute dietary exposure to thiamethoxam in drinking water, after calculating DWLOCs and comparing them to conservative model estimated environmental concentrations of thiamethoxam in surface and ground water, EPA does not expect the aggregate exposure to exceed 100% of the aPAD, as shown in the following Table 2:

TABLE 2.—AGGREGATE RISK ASSESSMENT FOR ACUTE EXPOSURE TO THIAMETHOXAM

Population Subgroup	aPAD (mg/kg)	% aPAD (Food)	Surface Water EEC (ppb)	Ground Water EEC (ppb)	Acute DWLOC (ppb)
U.S. population	0.1	<1	8.0	1.55	3,479
All infants < 1 yr.	0.1	2	8.0	1.55	986
Children 1–6 yrs.	0.1	1	8.0	1.55	987

2. *Chronic risk.* Using the exposure assumptions described in this unit for chronic exposure, EPA has concluded that exposure to thiamethoxam from food will utilize less than 1% of the cPAD for the U.S. population and all sensitive subpopulations of concern, including infants and children. There

are no residential uses for thiamethoxam that result in chronic residential exposure to thiamethoxam. In addition, despite the potential for chronic dietary exposure to thiamethoxam in drinking water, after calculating DWLOCs and comparing them to conservative model estimated

environmental concentrations of thiamethoxam in surface and ground water, EPA does not expect the aggregate exposure to exceed 100% of the cPAD, as shown in the following Table 3:

TABLE 3.—AGGREGATE RISK ASSESSMENT FOR CHRONIC (NON-CANCER) EXPOSURE TO THIAMETHOXAM

Population Subgroup	cPAD mg/kg/day	% cPAD (Food)	Surface Water EEC (ppb)	Ground Water EEC (ppb)	Chronic DWLOC (ppb)
U.S. Population	0.0006	<1	0.06	1.55	21
All infants < 1 yr.	0.0006	<1	0.06	1.55	6
Children 1–6 yrs.	0.0006	<1	0.06	1.55	6

3. *Short-term risk.* Short-term aggregate exposure takes into account residential exposure plus chronic exposure to food and water (considered to be a background exposure level).

Thiamethoxam is not registered for use on any sites that would result in residential exposure. Therefore, the aggregate risk is the sum of the risks from food and water, which were previously addressed.

#### 4. *Intermediate-term risk.*

Intermediate-term aggregate exposure takes into account non-dietary, non-occupational exposure plus chronic exposure to food and water (considered to be a background exposure level).

Thiamethoxam is not registered for use on any sites that would result in residential exposure. Therefore, the aggregate risk is the sum of the risks from food and water, which were previously addressed.

5. *Aggregate cancer risk for U.S. population.* Using the exposure assumptions described in this unit for cancer risk assessment and applying the upper-bound potency factor ( $Q_i^{*}$ ) value of  $0.0377 \text{ (mg/kg/day)}^{-1}$ , the dietary (food only) cancer risk associated with thiamethoxam use on cotton and secondary residues in milk, meat and meat byproducts is  $2.9 \times 10^{-8}$ . This risk estimate is fairly refined, incorporating both anticipated residues (from field trial data) and percent of market share data into the analysis. There are no residential uses for thiamethoxam that result in chronic residential exposure to thiamethoxam and would be considered in an aggregate cancer risk assessment. In addition, despite the potential for chronic dietary exposure to thiamethoxam in drinking water, after calculating a DWLOC and comparing it to conservative models estimated environmental concentrations of thiamethoxam in surface and ground

water, EPA does not expect the aggregate exposure to exceed the negligible risk. The calculated DWLOC for chronic, cancer effects of 2.75 ppb is not exceeded by estimated environmental concentrations of thiamethoxam in surface water and groundwater of 0.06 ppb and 1.55 ppb, respectively. Therefore, EPA concludes with reasonable certainty that exposures to thiamethoxam in drinking water (when considered along with other sources of exposure for which OPP has reliable data) would not result in unacceptable levels of aggregate human health risk at this time.

6. *Determination of safety.* Based on these risk assessments, EPA concludes that there is a reasonable certainty that no harm will result to the general population, and to infants and children from aggregate exposure to thiamethoxam residues.

## V. Other Considerations

### A. Analytical Enforcement Methodology

An adequate enforcement methodology for both plants and animals is available to enforce the tolerance expression. Method AG-675 (HPLC/UV) for residues of thiamethoxam and CGA-322704 has undergone a successful independent laboratory validation (ILV) trial. The method may be requested from: Calvin Furlow, PIRIB, IRSD (7502C), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave., NW, Washington, DC 20460; telephone number: (703) 305-5229; e-mail address: furlow.calvin@epa.gov.

### B. International Residue Limits

As there are no Codex, Canadian, or Mexican MRLs/tolerances established for residues of thiamethoxam in plant or animal commodities, a discussion of

compatibility with U.S. tolerances is not relevant at this time.

## C. Conditions

No conditions are required in conjunction with the establishment of these time-limited tolerances.

## VI. Conclusion

Therefore, the tolerances are established for combined residues of thiamethoxam, 3-[(2-chloro-5-thiazolyl)methyl]tetrahydro-5-methyl-N-nitro-4H-1,3,5-oxadiazin-4-imine and its metabolite CGA-322704, in or on cotton, undelinted seed at 0.1 ppm; cotton, gin byproducts at 1.5 ppm; milk at 0.02 ppm; meat of cattle, goats, horses and sheep at 0.02 ppm; and meat byproducts of cattle, goats, horses and sheep at 0.02 ppm.

## VII. Objections and Hearing Requests

Under section 408(g) of the FFDCA, as amended by the FQPA, any person may file an objection to any aspect of this regulation and may also request a hearing on those objections. The EPA procedural regulations which govern the submission of objections and requests for hearings appear in 40 CFR part 178. Although the procedures in those regulations require some modification to reflect the amendments made to the FFDCA by the FQPA of 1996, EPA will continue to use those procedures, with appropriate adjustments, until the necessary modifications can be made. The new section 408(g) provides essentially the same process for persons to "object" to a regulation for an exemption from the requirement of a tolerance issued by EPA under new section 408(d), as was provided in the old FFDCA sections 408 and 409. However, the period for filing objections is now 60 days, rather than 30 days.

#### A. What Do I Need to Do to File an Objection or Request a Hearing?

You must file your objection or request a hearing on this regulation in accordance with the instructions provided in this unit and in 40 CFR part 178. To ensure proper receipt by EPA, you must identify docket control number OPP-301080 in the subject line on the first page of your submission. All requests must be in writing, and must be mailed or delivered to the Hearing Clerk on or before February 20, 2001.

**1. Filing the request.** Your objection must specify the specific provisions in the regulation that you object to, and the grounds for the objections (40 CFR 178.25). If a hearing is requested, the objections must include a statement of the factual issues(s) on which a hearing is requested, the requestor's contentions on such issues, and a summary of any evidence relied upon by the objector (40 CFR 178.27). Information submitted in connection with an objection or hearing request may be claimed confidential by marking any part or all of that information as CBI. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. A copy of the information that does not contain CBI must be submitted for inclusion in the public record. Information not marked confidential may be disclosed publicly by EPA without prior notice.

Mail your written request to: Office of the Hearing Clerk (1900), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460. You may also deliver your request to the Office of the Hearing Clerk in Rm. C400, Waterside Mall, 401 M St., SW., Washington, DC 20460. The Office of the Hearing Clerk is open from 8 a.m. to 4 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Office of the Hearing Clerk is (202) 260-4865.

**2. Tolerance fee payment.** If you file an objection or request a hearing, you must also pay the fee prescribed by 40 CFR 180.33(i) or request a waiver of that fee pursuant to 40 CFR 180.33(m). You must mail the fee to: EPA Headquarters Accounting Operations Branch, Office of Pesticide Programs, P.O. Box 360277M, Pittsburgh, PA 15251. Please identify the fee submission by labeling it "Tolerance Petition Fees."

EPA is authorized to waive any fee requirement "when in the judgement of the Administrator such a waiver or refund is equitable and not contrary to the purpose of this subsection." For additional information regarding the waiver of these fees, you may contact James Tompkins by phone at (703) 305-

5697, by e-mail at tompkins.jim@epa.gov, or by mailing a request for information to Mr. Tompkins at Registration Division (7505C), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

If you would like to request a waiver of the tolerance objection fees, you must mail your request for such a waiver to: James Hollins, Information Resources and Services Division (7502C), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

**3. Copies for the Docket.** In addition to filing an objection or hearing request with the Hearing Clerk as described in Unit VII.A., you should also send a copy of your request to the PIRIB for its inclusion in the official record that is described in Unit I.B.2. Mail your copies, identified by the docket control number OPP-301080, to: Public Information and Records Integrity Branch, Information Resources and Services Division (7502C), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460. In person or by courier, bring a copy to the location of the PIRIB described in Unit I.B.2. You may also send an electronic copy of your request via e-mail to: oppdocket@epa.gov. Please use an ASCII file format and avoid the use of special characters and any form of encryption. Copies of electronic objections and hearing requests will also be accepted on disks in WordPerfect 6.1/8.0 file format or ASCII file format. Do not include any CBI in your electronic copy. You may also submit an electronic copy of your request at many Federal Depository Libraries.

#### B. When Will the Agency Grant a Request for a Hearing?

A request for a hearing will be granted if the Administrator determines that the material submitted shows the following: There is a genuine and substantial issue of fact; there is a reasonable possibility that available evidence identified by the requestor would, if established resolve one or more of such issues in favor of the requestor, taking into account uncontested claims or facts to the contrary; and resolution of the factual issues(s) in the manner sought by the requestor would be adequate to justify the action requested (40 CFR 178.32).

#### VIII. Regulatory Assessment Requirements

This final rule establishes time-limited tolerances under FFDCA section 408. 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). This final rule does not contain any information collections subject to OMB approval under the Paperwork Reduction Act (PRA), 44 U.S.C. 3501 *et seq.*, or impose any enforceable duty or contain any unfunded mandate as described under Title II of the Unfunded Mandates Reform Act of 1995 (UMRA) (Public Law 104-4). Nor does it require any prior consultation as specified by Executive Order 13084, entitled *Consultation and Coordination with Indian Tribal Governments* (63 FR 27655, May 19, 1998); special considerations as required by Executive Order 12898, entitled *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (59 FR 7629, February 16, 1994); or require OMB review or any Agency action under Executive Order 13045, entitled *Protection of Children from Environmental Health Risks and Safety Risks* (62 FR 19885, April 23, 1997). 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 of 1995 (NTTAA), Public Law 104-113, section 12(d) (15 U.S.C. 272 note). Since tolerances and exemptions that are established on the basis of a FIFRA section 18 exemption under FFDCA section 408, such as the tolerances 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. In addition, the Agency has determined that this action will not have a substantial direct effect on 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, as specified in Executive Order 13132, entitled *Federalism* (64 FR 43255, August 10, 1999). Executive Order 13132 requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that 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.” This final rule directly regulates growers, food processors, food handlers and food retailers, not States. This action does not alter the relationships or distribution of power and responsibilities established by Congress in the preemption provisions of FFDCA section 408(n)(4).

#### **IX. Submission to Congress and the Comptroller General**

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. 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 this final rule in the **Federal Register**. This final rule 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 6, 2000.

**Joseph J. Merenda,**

*Acting Director, 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:

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

2. Section 180.565 is added to read as follows:

#### **§ 180.565 Thiamethoxam; tolerances for residues.**

(a) *General.* [Reserved]

(b) *Section 18 emergency exemptions.* Time-limited tolerances are established for combined residues of the insecticide thiamethoxam 3-[(2-chloro-5-thiazolyl)methyl]tetrahydro-5-methyl-N-nitro-4H-1,3,5-oxadiazin-4-imine and its CGA-322704 metabolite in connection with use of the pesticide under section 18 emergency exemptions granted by EPA. These tolerances will expire and are revoked on the dates specified in the following table.

Commodity	Parts per million	Expiration/revocation date
Cattle, meat .....	0.02	12/31/02
Cattle, meat byproducts .....	0.02	12/31/02
Cotton, undelinted seed .....	0.1	12/31/02
Cotton, gin byproducts .....	1.5	12/31/02
Goat, meat .....	0.02	12/31/02
Goat, meat byproducts .....	0.02	12/31/02
Horse, meat .....	0.02	12/31/02
Horse, meat byproducts .....	0.02	12/31/02
Milk .....	0.02	12/31/02
Sheep, meat .....	0.02	12/31/02
Sheep, meat byproducts .....	0.02	12/31/02

(c) *Tolerances with regional registrations.* [Reserved]  
 (d) *Indirect or inadvertent residues.* [Reserved]

[FR Doc. 00-32400 Filed 12-19-00; 8:45 am]  
**BILLING CODE 6560-50-S**

#### **ENVIRONMENTAL PROTECTION AGENCY**

#### **40 CFR Part 180**

**[OPP-301084; FRL-6756-1]**

**RIN 2070-AB78**

#### **Clomazone; Pesticide Tolerances for Emergency Exemptions**

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

**ACTION:** Final rule.

**SUMMARY:** This regulation establishes a time-limited tolerance for residues of clomazone in or on sugarcane. This action is in response to a crisis exemption declared by the state of

Louisiana under section 18 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) authorizing use of the pesticide on sugarcane. This regulation establishes a maximum permissible level for residues of clomazone in this food commodity. The tolerance will expire and is revoked on December 31, 2002.

**DATES:** This regulation is effective December 20, 2000. Objections and requests for hearings, identified by docket control number OPP-301084, must be received by EPA on or before February 20, 2001.

**ADDRESSES:** Written objections and hearing requests may be submitted by mail, in person, or by courier. Please follow the detailed instructions for each method as provided in Unit VII. of the **SUPPLEMENTARY INFORMATION.** To ensure proper receipt by EPA, your objections and hearing requests must identify docket control number OPP-301084 in the subject line on the first page of your response.

**FOR FURTHER INFORMATION CONTACT:** By mail: Libby Pemberton, Registration Division (7505C), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone number: (703) 308-9364; and e-mail address: pemberton.libby@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. Potentially affected categories and entities may include, but are not limited to:

Categories	NAICS codes	Examples of Potentially Affected Entities
Industry	111 112 311	Crop production Animal production Food manufacturing