

# Copper Sulfate Pentahydrate; Exemption from the Requirement of a Tolerance

Note: EPA no longer updates this information, but it may be useful as a reference or resource.

[Federal Register: November 15, 2000 (Volume 65, Number 221)]  
[Rules and Regulations]  
[Page 68908-68912]  
From the Federal Register Online via GPO Access [wais.access.gpo.gov]  
[DOCID:fr15no00-23]

-----  
ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 180

[OPP-301060; FRL-6747-3]  
RIN 2070-AB78

Copper Sulfate Pentahydrate; 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 copper sulfate pentahydrate when applied as a fungicide to raw agricultural commodities after harvest. Magna Bon Corporation submitted a petition to EPA under the Federal Food, Drug, and Cosmetic Act, as amended by the Food Quality Protection Act of 1996 requesting an exemption from the requirement of a tolerance. This regulation eliminates the need to establish a maximum permissible level for residues of copper sulfate pentahydrate. In this final rule, the Agency is also reordering the structure of 40 CFR 180.1001(b)(1) and 180.1021 to group most of the copper exemptions together. The reordering does not change the regulatory status of these chemicals.

DATES: This regulation is effective November 15, 2000. Objections and requests for hearings, identified by docket control number OPP-301060 must be received by EPA on or before January 16, 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 VIII. of the SUPPLEMENTARY INFORMATION. To ensure proper receipt by EPA, your objections and hearing requests must identify docket control number OPP-301060 in the subject line on the first page of your response.

FOR FURTHER INFORMATION CONTACT: By mail: Treva Alston, Registration Division (7505C), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone number: (703) 308-8373; and e-mail address: [alston.treva@epa.gov](mailto:alston.treva@epa.gov).

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this Action Apply to Me?

You may be 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	Examples of Potentially Affected Entities
Industry.....	111	Crop production
.....	112	Animal production
.....	311	Food manufacturing
.....	32532	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.

[[Page 68909]]

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/>.

2. In person. The Agency has established an official record for this action under docket control number OPP-301060. 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, Crystal 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

In the Federal Register of July 14, 1999 (64 FR 37972) (FRL -6085-5), EPA issued a notice pursuant to section 408 of the Federal Food, Drug, and Cosmetic Act (FFDCA), 21 U.S.C. 346a, as amended by the Food Quality Protection Act (FQPA) (Public Law 104-170) announcing the filing of a pesticide petition (PP 8F4982) by Magna Bon Corporation, 3213 Ocean Drive, Vero Beach, Florida 32963. This notice included a summary of the petition prepared by the petitioner. There were no comments received in response to the notice of filing. Various copper containing substances have been exempted from tolerance requirements for numerous uses. 40 CFR 180.1001 (b) (1) exempts the listed copper compounds when applied to growing crops. However, these substances are not exempted from the requirement of a tolerance when applied to a crop at the time of or after harvest. Other exempted uses of copper include harvested fish and shellfish, meat, milk, poultry, eggs, and irrigated crops as specified in 40 CFR 180.1021. The petition requested that copper sulfate pentahydrate be exempted from the requirement of a tolerance when applied to raw agricultural commodities at 0.050 ppm. The Agency does not generally grant an exemption from the requirement of tolerance with a numerical limitation.

Section 408(b)(2)(A)(i) of the 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) 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.... ''

EPA performs a number of analyses to determine the risks from aggregate exposure to pesticide residues. First, EPA determines the toxicity of pesticides. Second, EPA examines exposure to the pesticide through food, drinking water, and through other exposures that occur as a result of pesticide use in residential settings.

## III. Toxicological Profile

Consistent with section 408(b)(2)(D) of FFDCA, EPA has reviewed the available scientific data and other relevant information in support of this action and considered its validity, completeness and reliability and the relationship of this information 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. The nature of the toxic effects caused by copper sulfate pentahydrate are discussed in this unit.

There is adequate information available to characterize the toxicity of the copper ion. Copper is ubiquitous in nature and is a necessary nutritional element for both animals (including humans), and plants. Copper is found naturally in the food we eat, in the water we drink, in the air we breathe and in our bodies themselves. Some of the environmental copper is due to direct modification of the environment by man such as mining and smelting of the natural ore. It is one of 26 elements found essential to life. The copper ion is present in the

adult human body at levels of 80-150 mg.

Oral ingestion of excessive amounts of the copper ion from pesticidal uses is unlikely. Copper compounds are irritating to the gastric mucosa. Ingestion of large amounts of copper results in prompt emesis. This protective reflex reduces the amount of copper ion available for absorption into the human body. Additionally, at high levels humans are also sensitive to the taste of copper. Because of this organoleptic property, oral ingestion would also serve to limit high doses.

Only a small percentage of ingested copper is absorbed, and most of the absorbed copper is excreted. The copper ion occurs naturally in many foods and the metabolism of copper is well understood. The Agency published a registration standard for copper sulfate in 1985. As indicated in the registration standard, there are several factors unique to copper which indicate that specific studies to fulfill the usual data requirements are not necessary to regulate copper sulfate as a pesticide. One of the foremost of these is the fact that copper is a required nutritional element for both plants and animals. It appears that more evidence is available to define the adverse effects of a deficiency in the diet than to show the toxic effects of an excess intake; in fact, no account has been found in the literature reviewed which describes a toxic effect to normal humans from ingestion of common foodstuffs containing copper. Because copper toxicity to man through the diet has not been shown in normal persons, little is known about the minimum levels of dietary copper necessary to cause evidence of adverse effects. This situation is likely due, to an effective homeostatic mechanism that is involved in the dietary intake of copper and that protects man from excess body copper. This complex mechanism integrates absorption, retention, and excretion to stabilize the copper body burden. Given that copper is ubiquitous and is routinely consumed as part of the daily diet, it is unlikely that with current exposure patterns there would be any long term adverse effects.

[[Page 68910]]

Sulfate has little toxic effect and is routinely used in medicine as a cathartic when combined with magnesium or sodium, the only adverse manifestation from this use being dehydration if water intake is concurrently limited.

#### IV. Aggregate Exposures

In examining aggregate exposure, FFDCA section 408 directs EPA to consider available information concerning exposures from the pesticide residue in food and all other nonoccupational exposures, including drinking water from ground water or surface water and exposure through pesticide use in gardens, lawns, or buildings (residential and other indoor uses).

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 chemicals, the Agency considers the toxicity of the chemical in conjunction with possible exposure to residues of the chemical 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, an exemption from the requirement of a tolerance may be established.

## A. Dietary Exposure

Copper is ubiquitous in nature and is a necessary nutritional element for both animals (including humans) and plants. It is one of 26 elements found essential to life. The human body must have copper to stay healthy. In fact, for a variety of biochemical processes in the body to operate normally, copper must be part of our diet. Copper is needed for certain critical enzymes to function in the body. Too little copper in the body can actually lead to disease.

1. Food. The main source of copper for infants, children, and adults, regardless of age, is the diet. Copper is typically present in mineral rich foods like vegetables (potato, legumes (beans and peas), nuts (peanuts and pecans), grains (wheat and rye), fruits (peach and raisins), and chocolate in levels ranging from 0.3 to 3.9 ppm. A single day's diet may contain 10 mg or more of copper. The daily recommended allowance of copper for adults nutritional needs is 2 mg. It is not likely that the approval of this petition would significantly increase exposure over that of the existing levels of copper.

2. Drinking water exposure. Copper is a natural element found in the earth's crust. As a result, most of the world's surface water and ground water that is used for drinking purposes contains copper. The actual amount varies from region to region, depending on how much is present in the earth, but in almost all cases the amount of copper in water is extremely low. Naturally occurring copper in drinking water is safe for human consumption, even in rare instances where it is at levels high enough to impart a metallic taste to the water. The Agency has set a maximum contaminant level for copper at 1.3 ppm because the Agency believes that this level of protection would not cause any potential health problems, i.e. stomach and intestinal distress, liver and kidney damage, and anemia. It is not likely that the approval of this petition would significantly increase exposure over that of the existing levels of copper.

## B. Other Non-Occupational Exposure

Copper compounds have many uses on crops (food as well as non food) and ornamentals as a fungicide.

1. Dermal exposure. Given the prevalence of copper in the environment, no significant increase above current levels would be expected from the dermal non-occupational use of copper sulfate pentahydrate.

2. Inhalation exposure. Air concentrations of copper are relatively low. A study based on several thousand samples assembled by EPA's Environmental Monitoring Systems Laboratory showed copper levels ranging from 0.003 to 7.32 micrograms per cubic meter. Other studies indicate that air levels of copper are much lower. The Agency does not expect the air concentration of copper to be significantly affected by the use of copper sulfate pentahydrate.

## V. Cumulative Effects

The Agency believes that copper has no significant toxicity to humans and that no cumulative adverse effects are expected from long-term exposure to copper salts including copper sulfate pentahydrate. EPA does not have, at this time, available data to determine whether copper compounds have a common mechanism of toxicity with other substances or how to include this inert ingredient in a cumulative risk assessment. For the purposes of this tolerance action, EPA has not assumed that copper compounds have a common mechanism of toxicity with other substances.

## VI. Determination of Safety for U.S. Population, Infants and Children

Copper sulfate pentahydrate is considered as Generally Recognized as Safe (GRAS) by the Food and Drug Administration. EPA has exempted various copper compounds from the requirement of a tolerance when used as aquatic herbicides (40 CFR 180.1021). Copper compounds are also exempt from the requirements of a tolerance when applied to growing crops when used as a plant fungicide in accordance with good agricultural practices (40 CFR 180.1001 (b)(1)).

1. U.S. population. Copper is a component of the human diet and an essential element. Use of copper sulfate pentahydrate is not expected to increase the amount of copper in the diet as a result of its use on growing crops and post harvest use.

2. Infants and children. Copper is also a component of the diet of infants and children and also an essential element of their diet. Because of copper's low toxicity, EPA has not used a safety factor approach to analyze the safety of copper sulfate pentahydrate used in growing crops as well as post harvest. For similar reasons, an additional ten-fold margin of safety is not necessary for the protection of infants and children.

Based on the information in this preamble, EPA concludes that there is a reasonable certainty of no harm to the general population, including infants and children, from aggregate exposure to copper sulfate pentahydrate residues.

## VII. Other Considerations

### A. Analytical Method(s)

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.

### B. Existing Tolerance Exemptions

Copper sulfate pentahydrate has been exempted from the requirement of a tolerance under 40 CFR 180.1001(b)(1) when applied to growing crops.

### C. International Tolerances

The Agency is not aware of any country requiring a tolerance for copper sulfate pentahydrate nor have any CODEX Maximum Residue Levels (MRLs) been established for any food crops at this time.

## VIII. Conclusions

Based on the information in this preamble, EPA concludes that there is a reasonable certainty of no harm from

[[Page 68911]]

aggregate exposure to residues of copper sulfate pentahydrate. Accordingly, EPA finds that exempting post harvest uses of copper sulfate pentahydrate from the requirement of a tolerance will be safe. Although the petitioner requested an exemption with a maximum residue limit, the Agency does not generally grant an exemption from the requirement of a tolerance with a numerical limitation. Given the lack of toxicity of this compound, EPA is following its general practice of

not establishing a numerical limitation with this exemption.

In examining the existing tolerance exemptions for copper compounds, it was observed that the exemptions from the requirement of a tolerance are in two places in the Code of Federal Regulations, 40 CFR 180.1001 (b)(1) and 40 CFR 180.1021. For ease of use, all of these exemptions from the requirement of a tolerance are being placed in 180.1021. While reordering of the structure of the CFR is occurring, there have not been any changes with respect to the exemptions from the requirement of a tolerance of these copper compounds. However, copper sulfate pentahydrate is now exempt from the requirement of a tolerance when applied as a fungicide to growing crops or to raw agricultural commodities after harvest.

## IX. 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-301060 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 January 16, 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 email at [tompkins.jim@epa.gov](mailto: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 VIII.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 docket control number OPP-301060, 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: [opp-docket@epa.gov](mailto:opp-docket@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).

#### X. Regulatory Assessment Requirements

This final rule establishes an exemption from the tolerance requirement 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). This final rule does not contain any information collections subject to OMB approval under the Paperwork

[[Page 68912]]

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 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. 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).

#### XI. 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: October 31, 2000.

James Jones,  
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:

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

Sec. 180.1001 [Amended]

2. Section 180.1001 is amended by removing and reserving the text of paragraph (b)(1).

3. Section 180.1021 is revised to read as follows:

Sec. 180.1021 Copper; exemption from the requirement of a tolerance.

(a) Copper is exempted from the requirement of a tolerance in meat, milk, poultry, eggs, fish, shellfish, and irrigated crops when it results from the use of:

(1) Copper sulfate as an algicide or herbicide in irrigation conveyance systems and lakes, ponds, reservoirs, or bodies of water in which fish or shellfish are cultivated.

(2) Basic copper carbonate (malachite) as an algicide or herbicide in impounded and stagnant bodies of water

(3) Copper triethanolamine and copper monoethanolamine as an algicide or herbicide in fish hatcheries, lakes, ponds, and reservoirs

(4) Cuprous oxide bearing antifouling coatings for control of algae or other coatings for control of algae or other organisms on submerged concrete or other (irrigation) structures.

(b) The following copper compounds are exempt from the requirement of a tolerance when applied (primarily) as a fungicide to growing crops using good agricultural practices: Bordeaux mixture, basic copper carbonate (malachite) (CAS Reg. No. 1184-64-1), copper ethylenediamine complex, copper hydroxide (CAS Reg. No. 20427-59-2), copper lime mixtures, copper linoleate (CAS Reg. No. 7721-15-5), copper octanoate (CAS Reg. No. 20543-04-8), copper oleate (CAS Reg. No. 10402-16-1), copper oxychloride (CAS Reg. No. 1332-40-7), copper sulfate basic (CAS Reg. No. 1344-73-6), cupric oxide (CAS Reg. No. 1317-38-0), and cuprous oxide (CAS Reg. No. 1317-19-1).

(c) Copper sulfate pentahydrate (CAS Reg. No. 7758-99-8) is exempt from the requirement of a tolerance when applied as a fungicide to growing crops or to raw agricultural commodities after harvest.

[FR Doc. 00-28715 Filed 11-14-00; 8:45 am]

BILLING CODE 6560-50-S

[FR Home](#)  
[About the Site](#)  
[FR Listserv](#)  
[FR Search](#)  
[Selected Electronic Dockets](#)  
[Regulatory Agenda](#)  
[Executive Orders](#)  
[Current Laws and Regulations](#)

[EPA Home](#)  
[Privacy and Security Notice](#)

[Contact Us](#)

[Share](#)