

GUIDANCE FOR THE
REREGISTRATION OF PESTICIDE PRODUCTS
CONTAINING
ANILAZINE

AS THE ACTIVE INGREDIENT

ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDE PROGRAMS

WASHINGTON, D.C. 20460

DECEMBER, 1983

TABLE OF CONTENTS

Introduction	1
I. Regulatory Position.	4
II. Requirement for Submission of Generic Data	13
III. Requirement for Submission of Product-Specific Data	49
IV. Submission of Revised Labeling and Packaging Information.	50
A. Label Contents	50
1. Product Name	50
2. Company Name and Address	50
3. Net Contents	50
4. Product Registration Number.	51
5. Producing Establishment Registration Number.	51
6A Ingredient Statement	51
6B Pounds Per Gallon Statement.	51
7. Front Panel Precautionary Statements	51
7A Child Hazard Warning Statements.	52
7B Signal Word.	52
7C Skull and Crossbones and Word Poison	52
7D Statement of Practical Treatment	52
7E Referral Statement	52
8. Side/Back Panel Precautionary Labeling	52
8A Hazard to Humans and Domestic Animals.	53
8B Environmental Hazard	53
8C Physical or Chemical Hazard.	53
9 Misuse Statement	54
10A Storage and Disposal Block	54
10B Directions for Use	54
B. Collateral Information	54
V. Instructions for Submission.	55

APPENDICES

- II-1 Bibliography
- II-2 FIFRA §3(c)(2)(B) Summary Sheet - EPA Form 8580-1.
- II-3 Certification of Attempt to Enter Into an Agreement
With Other Registrants for Development of Data
EPA Form 8580-6
- III-1 Product Specific Data Report (End-Use Products)
EPA Form 8580-4
- IV-1 40 CFR §162.10 Labeling Requirements.
- IV-2 Table of Labeling Requirements and Sample Labels
- IV-3 Physical/Chemical Hazards Labeling Statement
- IV-5 Storage and Disposal Statements
- Note: Appendices IV-4 and IV-6 are not germane to this
document and are not included.

INTRODUCTION

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA Section 3(g)), as amended in 1978, directs EPA to reregister all pesticides as expeditiously as possible. Each registrant of a manufacturing use product of the active ingredient who wishes to continue to sell or distribute that product must apply for reregistration.

To fulfill this Congressional mandate, we have established the Registration Standards program which will review all pesticide active ingredients first registered before January 1, 1977. These pesticides will be reviewed in use clusters which are prioritized on the basis of a ranking scheme giving preference to pesticides used on food and feed crops.

The Registration Standards program involves a thorough review of the scientific data base underlying pesticide registrations and an identification of essential but missing studies which may not have been required when the product was initially registered or studies that are now considered insufficient. Our reassessment results in the development of a regulatory position, contained in this document, on each pesticide and its uses. The regulatory position may require the registrant to modify product labels to provide additional precautionary statements, restrict the use of the pesticide to certified applicators, provide reentry intervals, modify uses or formulation types, specify certain packaging limitations, or other requirements to assure that proper use of the pesticide poses no potential adverse effects to human health or the environment.

The scientific review, which is not contained herein but is available upon request, concentrates on the technical grade of the active ingredient and identifies missing generic data. However, during the review of these data we are also looking for potential hazards that may be associated with the formulated (end-use) products that contain the active ingredient. If we find serious concerns, we will bring formulated products under the provisions of the Registration Standards program to the extent necessary to protect the public.

EPA has the authority under FIFRA §3(c)(2)(B) to require that certain registrants submit generic data that will answer our questions regarding the hazard that may result from the intended use of the pesticide under review. Further, §3(c)(2)(B) provides that these data are to be submitted by those registrants who do not qualify for the formulator's exemption [FIFRA §3(c)(2)(D)]. Normally, this means that the registrants who are responsible for filling the data gaps are the manufacturing-use product producers (basic

suppliers of the active ingredient). However, end-use producers will not qualify for the formulator's exemption if the source of their active ingredient: (1) is not registered with EPA, and/or (2) is produced by the registrant's firm, or a firm which has ownership in common with the registrant's firm. These end-use producers can qualify for the formulator's exemption if they change their source of supply to a registered source, provided the source does not share ownership in common with the registrant's firm. If the end-use product registrant decides to switch sources, a new Confidential Statement of Formula, EPA Form 8570-4, must be submitted to the appropriate Product Manager within 90 days of receipt of this Guidance Document. The chart on the following page shows what is generally required of those who do and do not qualify for the formulator's exemption in the Registration Standards program.

If you decide to request the Agency to discontinue the registration of any of your products subject to the reregistration requirements of this Guidance Document, please notify the Product Manager named in the cover letter, within 90 days from the receipt of this document, that you wish to voluntarily cancel the registration(s). If you decide to maintain your product registration(s), you must provide the information described in the following pages within the timeframes outlined. EPA will issue a notice of intent to cancel or suspend the registration of any currently registered product if you fail to comply with the requirements set forth in this Guidance Document.

This Guidance Document will be supplemented by EPA with additional information about compliance with data support requirements. In Monsanto v. Administrator, EPA was recently enjoined from implementing in any way the "mandatory data licensing" aspects of §3(c)(1)(D) of FIFRA. EPA is assessing the implications of the injunction for the reregistration process. Because this situation is currently unresolved, EPA has decided to proceed with the requirements in this Guidance Document which do not relate to compliance with the §3(c)(1)(D) provisions and to supplement the Document with additional guidance when circumstances permit. Failure to comply with the provisions of the subsequent guidance will also result in issuance by EPA of an intent to cancel the affected product registration(s).

Registrants are reminded that §6(a)(2) of FIFRA requires you at any time to submit factual information raising concerns of possible unreasonable adverse effects of a pesticide. You should notify the Agency of interim results of studies in progress if those results show possible adverse effects.

PRODUCTS SUBJECT TO THE REGISTRATION STANDARDS PROGRAM	ACTION(S) REQUIRED TO MAINTAIN REGISTRATION
<p>I. Products That Do Not Qualify For The Formulator's Exemption</p> <p>A. Single Active Ingredient Products*</p> <p>.....</p> <p>B. Multiple Active Ingredient Products</p>	<p>These products must be reregis- tered. To obtain reregistration, labeling, packaging and data requirements must be satisfied in accordance with the Regis- tration Standards Guidance Document.</p> <p>.....</p> <p>These products will not be reregistered at this time. However, generic data required to continue the registration of the active ingredient under review, as described in the Registration Standards Guidance Document, <u>will</u> be required and some labeling precautions may also be required.</p>
<p>II. Products That Do Qualify For The Formulator's Exemption</p>	<p>Only when additional restric- tions or labeling are needed to protect man or the environment will these products be subject to the Registration Standard requirements. Affected products will be dealt with in a variety of ways, including but not limited to the Label Improvement Program and special intent to cancel notices.</p>
<p>* End-use products of registrants who also produce a manufacturing- use product will not be required to be reregistered provided that registrant fulfills the requirements specified in the Guidance Document for manufacturing-use product(s). Such end-use products will be subject to the labeling changes required for products in "II" above. If there are no manufacturing-use products registered by any company end-use products will be required to be reregistered.</p>	
<p>NOTE: If all registrants in "I" above fail to meet the requirements in I-A and B above, then the registrants in "II" lose their right to qualify for the formulator's exemption and become subject to the requirements in I-A and B.</p>	

I. REGULATORY POSITION AND RATIONALE

A. Introduction

This Registration Standard describes the regulatory position of the Environmental Protection Agency (EPA or the Agency) on registration of manufacturing-use products (MP) containing the fungicide anilazine. The Agency's position is based on a consideration of available data and on an evaluation of all registered uses and registered MPs with anilazine as an active ingredient.

This position is based on a number of considerations. Foremost among these is an analysis of anilazine data based on the risk criteria found in Section 162.11(a) of Title 40 of the U.S. Code of Federal Regulations. The Standard also considers labeling requirements, tolerances, "Special Local Needs" registrations authorized by Section 24(c) of the FIFRA as well as Federal registrations granted under Section 3 of the FIFRA. Finally, the Agency sets forth the data requirements that must be met to register or reregister products covered by the Standard.

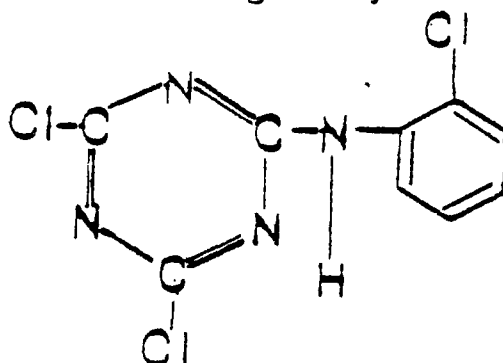
This Standard only addresses registration requirements for current or substantially similar future MPs and their intermediaries. Anilazine MPs that differ appreciably from those described here may require amendments to the Standard. Additionally, use patterns which differ from those described here may also require amendments to the Standard.

B. Description of Chemical

Anilazine is the acceptable common name for 2,4-dichloro-6-(0-chloroanilino)-s-triazine recognized by the British Standards Institution and the International Standardization Organization. Trade names and other

names for anilazine are: Dyrene, Direz, Kemate, Triasyn, B-622, Ent-26,058, HCl-C08684, and 4,6-dichloro-N-(2-chlorophenyl)-1,3,5-triazin-2-amine.

The Chemical Abstracts Service (CAS) Registry Number is 101-05-3. The OPP Internal Control Number (EPA Shaughnessy Number) is 080811. The structural formula is:



Anilazine is a white to tan crystalline solid that is practically non-volatile. The empirical formula is $C_9H_5Cl_3N_4$. The melting point of anilazine is 159-160°C. It is insoluble in water, but is soluble in chlorobenzene, toluene, xylene and acetone.

Anilazine was developed by Ethyl Corporation and Pittsburgh Coke and Chemical Company. It is manufactured by Mobay Chemical Corporation under license from Ethyl Corporation, owner of the patent rights.

C. Use Profile

Anilazine is a protectant foliar fungicide registered to control a number of fungal plant pathogens on turf, tobacco, ornamentals and various fruits and vegetables. Approximately 80% of the anilazine produced is used on turf, tomatoes and celery. The compound is also registered as a fungicidal additive to vinyl plastics.

At present there are 33 formulated products, 2 technical products and 2 formulating intermediates federally registered containing anilazine as a single active ingredient. Three additional multiple active ingredient products containing anilazine are registered. In addition to the federal registrations, 5 intrastate products and 2 "Special Local Needs" are

registered.

D. Regulatory Position

Based on a scientific and technical evaluation of the available data and other relevant information on the chemical, the Agency has made the following determinations regarding anilazine:

1. Manufacturing-use pesticide products containing anilazine as a sole active ingredient or mixed with other active ingredients may be registered for sale, distribution and use subject to the terms and conditions specified in this Standard.

2. Because of the extensive data gaps for anilazine, the Agency is not able to evaluate all of the hazards that are routinely evaluated. However, based on the available data, anilazine has not been demonstrated to cause unreasonable adverse effects in man when used in accordance with prescribed label directions and precautions.

3. A review of available studies has identified potential environmental concerns. Results of these studies indicate a very high acute toxicity to fish and aquatic invertebrates.

Anilazine is federally registered for use on cranberries in Wisconsin only. This cranberry acreage is in close proximity to aquatic environments. The potential exists for aquatic species to be adversely affected via release of water containing anilazine into the aquatic environment, drift or inadvertant direct application. Due to a lack of environmental fate data, it is not possible to estimate the hazard to non-target organisms. Once the Agency has evaluated these additional data, it will determine if continued registration of products containing

anilazine for use on cranberries is warranted or whether additional restrictions are needed.

4. Registrants must agree to develop or provide additional data, as specified in Tables A and B located in Chapter IV of this document, in order to maintain existing registrations or to permit new anilazine registrations.

5. Tolerance reassessment is normally a part of the Registration Standard review process. Due to the absence of pertinent data, the Agency is unable to complete its reassessment of anilazine tolerances. Specifically, the Agency is unable to establish a valid "No Observed Effect Level" (NOEL) or determine an "Acceptable Daily Intake" (ADI) for anilazine. The Agency will complete its tolerance assessment when the data gaps have been satisfied.

Summary of present tolerances for anilazine (in parts per million):

	<u>Canada</u>	<u>Mexico</u>	<u>Codex</u>	<u>U.S.</u>
Blackberries	5.0	-	-	10.0
Blueberries	10.0	-	-	10.0
Celery	10.0	-	-	10.0
Cranberries	10.0	-	-	10.0
Cucumbers, inc pickles	5.0	-	-	10.0
Dewberries	10.0	-	-	10.0
Garlic	10.0	-	-	1.0
Onions, dry bulb	10.0	-	-	1.0
Onions, green	10.0	-	-	10.0
Potatoes	1.0	-	-	1.0

Loganberries	5.0	-	-	10.0
Melons	5.0	-	-	10.0
Pumpkin, inc squash	5.0	-	-	10.0
Raspberries	5.0	-	-	10.0
Shallots	10.0	-	-	10.0
Summer squash	5.0	-	-	10.0
Strawberries	20.0	-	-	10.0
Tomatoes	10.0	-	-	10.0
Winter squash	5.0	-	-	10.0

E. Regulatory Rationale

[The Agency has determined that it can allow the registration of anilazine after considering the following:

1. Anilazine is degraded rapidly in both moist and dry soils under aerobic conditions,] with half-lives of 0.5 and 2.5 days, respectively. Anilazine is moderately mobile in sandy loam soil, but slightly mobile in agricultural sand, sandy clay loam, silt loam, and silty clay soils.

[2. There is sufficient information to characterize anilazine as practically non-toxic to birds and honey bees,] This chemical has been found to be highly toxic to fish and aquatic invertebrates. Strict adherence to application techniques as prescribed in the label directions and precautions will minimize the risk of potential adverse effects to aquatic organisms.

[3. Acute oral studies reviewed show anilazine to be a low risk chemical,] The studies submitted placed anilazine in Category II (rabbit), III (rat) and IV (dog). An acute dermal study on the rabbit placed the chemical in

Category III for dermal effects. However, the Agency considers anilazine to be a skin sensitizer. Strict adherence to application techniques and precautionary statements as outlined on the label will minimize exposure.

[and] 4. There are currently no data available to establish safe reentry intervals for anilazine-treated areas, thus no reentry intervals have been established. Since dermal exposure to anilazine has been shown to result in skin irritations, reentry data are needed to establish safe reentry intervals. Until such data have been developed and evaluated, an interim 24 hour reentry interval is required.

5. It is not the Agency's policy to cancel or to withhold registration merely because data are missing or inadequate [see FIFRA Sections 3(c)(2)(B) and 3(c)(7)]. Rather, publication of this Standard provides a mechanism for identifying data needs, and registration of anilazine under this Standard allows for the upgrading of labels during the period in which the required data are being developed. These data will be reviewed and evaluated when they are received and the Agency will determine, at that time, whether they will affect the registrations of anilazine.

F. Criteria for Registration Under This Standard

To be covered by this Standard, products must contain anilazine as the sole active ingredient or in combination with other active ingredients, bear required labeling, and conform to the product composition, acute toxicity limits, and use pattern requirements listed in Section G of this document.

The applicant for registration or reregistration of products subject

to this Standard must comply with all terms and conditions described in it. That includes making a commitment to fill data gaps on a schedule agreed to by both this Agency and the applicant. Applicants for registration under this Standard must follow the instructions contained in this guidance package and complete and submit the appropriate forms within the time specified.

G. Acceptable Ranges and Limits

1. Product Composition

To be covered under this Standard, technical grade products must contain at least 92 percent anilazine as the sole active ingredient. Each MP formulation proposed for registration must be fully described with appropriate certification of limits.

2. Acute Toxicity Limits

The Agency will consider registration of technical grade products and MP's containing anilazine for any acute toxicity category, provided the labeling of those products bear appropriate precautionary statements.

3. Use Patterns

To be registered under this Standard, MP's containing anilazine may be labeled for formulation only into end-use products for:

- ° Terrestrial, food crops on: tomatoes, celery, blackberries, dew-berries, loganberries, raspberries, strawberries, blueberries, huckleberries, cucumbers, onions (green and bulb or dry), garlic

shallots, potatoes, pumpkins, squash, melons and cranberries
(Wisconsin only).

- ° Terrestrial, non-food crops on: tobacco
- ° Domestic, outdoor on: gladioli, lawns and turf (bluegrasses, bent grasses, rye grasses and fescues).

H. Required Labeling

All technical grade and MP products containing anilazine must bear appropriate labeling as specified in 40 CFR 162.10. Other portions of the guidance package contain specific information regarding label requirements.

1. Manufacturing-Use

In addition to the labeling as described above, the labels of all MP's must contain the following statements:

- ° "For formulation into end-use fungicide products intended for domestic and non-domestic outdoor terrestrial use on (crops to be specified)."
- ° "This pesticide is toxic to fish and aquatic invertebrates. Do not discharge into lakes, streams, ponds or public water unless in accordance with an NPDES permit. For guidance, contact your Regional Office of EPA."
- ° "Protective clothing should be worn during periods of exposure, such as, during application or when contacting treated foliage."

2. End-Use Products

The following labeling recommendations are being made at this time

based on current use patterns and based on review of available data. Additional labeling statements may be needed upon receipt and evaluation of the data requested in this Standard.

All sites (except cranberries)-

- ° "This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water or wetlands. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes. Cover or incorporate spills."

Cranberries only-

- ° "This pesticide is toxic to fish and aquatic invertebrates. Movement from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes. Cover and incorporate all spills."

All sites -

- ° "Do not use on seed crops intended to be used for feed or forage. Do not graze treated areas."
- ° "Do not reenter treated fields within 24 hours following application of this product."
- ° "Protective clothing should be worn during periods of exposure, such as during application or when contacting treated foliage."

EPA Index to Pesticide Chemicals

c080811

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE*

TYPE PESTICIDE: Fungicide

FORMULATIONS: Tech (92%, 95%); FI (50%, 80%); D (5%); G (3%, 3.9%, 4%, 4.45%, 5%, 8.6%, 8.7%); WP (25%, 33.33%, 50%)

+ GENERAL WARNINGS AND LIMITATIONS: None.

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
----------------------	-----------------------------------	------------------------------------

= AGRICULTURAL CROPS

General Warnings and Limitations: Complete and thorough coverage of foliage is necessary for satisfactory control. Start applications before disease appears and repeat treatment as needed, usually at 7 to 10 day intervals. During wet weather, applications of 4 to 5 day intervals may be advisable. Applications should be made throughout the growing season and scheduled with local conditions. For specific use information, consult the State Agricultural Cooperative Extension Service. Do not use on seed crops intended to be used for feed or forage. Do not graze treated areas.

/0100200	<u>Blackberry</u>	10 ppm 14 day preharvest interval through 3.0 pounds per acre.
----------	-------------------	--

@FIBFBAW \$0100201 &005.0003	Botrytis fruit rot	1.5-3.0 lb/A Foliar application. (5% D)
&050.0006		1.0-2.0 lb/A Foliar application. Apply using (50% WP) 100 to 200 gallons of water per acre.

@FMAMBSL \$0100201 &005.0006	Cane and leaf spot (Septoria)	1.5-3.0 lb/A Foliar application. (5% D)
&050.0006		1.0-2.0 lb/A Foliar application. Apply using (50% WP) 100 to 200 gallons of water.

@FJACKAH \$0100201 &005.0003	Yellow rust/Cane rust (Kuehneola)	1.5-3.0 lb/A Foliar application. (5% D)
&050.0006		1.0-2.0 lb/A Foliar application. Apply using (50% WP) 100 to 200 gallons of water per acre.

*4,6-dichloro-N-(2-chlorophenyl)-1,3,5-triazin-2-amine
Dyrene

Issued: 4-07-79

II-080811-1

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
<u>Cucumber</u> (continued)		
@FFABPEA	Downy mildew (Pseudoperonospora)	Foliar application.
PFAAACDP	Refer to Anthracnose (Colletotrichum) for use and limitation information.	
@FBAQMCO	Gummy stem blight (Mycosphaerella)	Foliar application.
PFAAACDP	Refer to Anthracnose (Colletotrichum) for use and limitation information.	
@FMBCAAX	Leaf spot (Alternaria)	Foliar application.
PFAAACDP	Refer to Anthracnose (Colletotrichum) for use and limitation information.	
@FMBCCBM	Leaf spot (Cercospora)	Foliar application.
PFAAACDP	Refer to Anthracnose (Colletotrichum) for use and limitation information.	
/0101000	<u>Cranberry</u>	10 ppm 14 day preharvest interval through 3.0 pounds per acre. Use limited to WI.
@FMAWPCE \$0101001 &050.0006	Berry spot (Phyllosticta) 3.0 lb/A (50% WP)	Foliar application. Apply using 300 gallons of water per acre.
@FIBFCBV	Black rot (Ceuthospora)	Foliar application.
PFMAWPCE	Refer to Berry spot (Phyllosticta) for use and limitation information.	
@FIBCGAV	End rot (Godronia)	Foliar application.
PFMAWPCE	Refer to Berry spot (Phyllosticta) for use and limitation information.	

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

	<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
/0101500	<u>Huckleberry</u>		10 ppm 14 day preharvest interval through 1.5 pounds per acre.
@FMBCDCF \$0101501	Double spot (Dothichiza)		Foliar application.
S0100901		Refer to Blueberry, Double spot (Dothichiza), Foliar application for use and limitation infor- mation.	
@FMBCSBL \$0101501	Leaf spot (Septoria)		Foliar application.
S0100901		Refer to Blueberry, Leaf spot (Septoria), Foliar application for use and limitation information.	
/0100500	<u>Loganberry</u>		10 ppm 14 day preharvest interval through 3.0 pounds per acre.
@FIBFBAW \$0100500	Botrytis fruit rot		Foliar application.
S0100201		Refer to Blackberry, Botrytis fruit rot, Foliar application for use and limitation information.	
@FMAMSBL \$0100501	Cane and leaf spot (Septoria)		Foliar application.
S0100201		Refer to Blackberry, Cane and leaf spot (Septor- ia), Foliar application for use and limitation information.	
@FJACKAH \$0100501	Yellow rust/Cane rust (Kuehneola)		Foliar application.
S0100201		Refer to Blackberry, Yellow rust/Cane rust (Kueh- neola), Foliar application for use limitation and information.	

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
<u>Onion (bulb, dry) (continued)</u>		
@FCAEAAX \$1401101	Purple blotch (Alternaria)	Foliar application.
S1400701	Refer to Garlic, Purple blotch (Botrytis), Foliar application for use and limitation information.	
/1600400	<u>Onion (green)</u>	10 ppm No preharvest interval indicated through 2.0 pounds per acre. Not recommended for use in FL.
@FHACBAW \$1600401 &005.0003	Gray mold (Botrytis)	1.0-2.0 lb/A Foliar application. (5% D)
&050.0006	1.0-1.5 lb/A (50% WP)	Foliar application. Apply using 75 to 100 gallons of water per acre.
@FCAEAAX	Purple blotch (Alternaria)	Foliar application.
PFHACBAW	Refer to Gray mold (Botrytis) for use and limitation information.	
/1401300	<u>Potato</u>	1 ppm No preharvest interval indicated through 2.5 pounds per acre.
@FBAMAAX \$1401301 &005.0003	Early blight (Alternaria)	1.0-2.0 lb/A Foliar application. (5% D)
&050.0006	1.0-2.5 lb/A (50% WP)	Foliar application. Apply using 75 to 175 gallons of water per acre.
@FBASPCN	Late blight (Phytophthora)	Foliar application.
PFBAMAAX	Refer to Early blight (Alternaria) for use and limitation information.	

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
<u>Raspberry</u> (continued)		
@FMAMSDL \$0100601	Cane and leaf spot	Foliar application.
S0100201	Refer to Blackberry, Cane and leaf spot, Foliar application for use and limitation information.	
@FJACKAH \$0100601	Yellow rust/Cane rust (Kuehneola)	Foliar application.
S0100201	Refer to Blackberry, Yellow rust/Cane rust (Kuehneola), Foliar application for use and limitation information.	
/1401700	<u>Shallot</u>	10 ppm No preharvest interval indicated through 2.0 pounds per acre. Not recommended for use in FL.
@FHACBAW \$1401701	Gray mold (Botrytis)	Foliar application.
S1600401	Refer to Onion (green), Gray mold (Botrytis), Foliar application for use and limitation information.	
@FCAEAAX \$1401701	Purple blotch (Alternaria)	Foliar application.
S1600401	Refer to Onion (green), Gray mold (Botrytis), Foliar application for use and limitation information.	
/1001200	<u>Squash</u>	10 ppm No preharvest interval indicated through 3.0 pounds per acre.
@FAAACDP \$1001201	Anthracnose (Colletotrichum)	Foliar application.
S1001001	Refer to Cucumber, Anthracnose (Colletotrichum), Foliar application for use and limitation information.	

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
<u>Strawberry</u> (continued)		
@FMBCMCO	Leaf spot (Mycosphaerella)	Foliar application.
PFHACBAW	Refer to Gray mold (Botrytis) for use and limitation information.	
/2600300	<u>Tobacco</u>	
@FMAJAAX \$2600301 &050.0006	Brown spot (Alternaria) 1.0 lb/A (50% WP)	Foliar application. Apply using 100 gallons of water per acre. Apply at weekly intervals during harvest, after each priming.
/1100500	<u>Tomato</u>	10 ppm No preharvest interval indicated through 2.5 pounds per acre.
@FAAAGAP \$1100501 &005.0003	Anthracnose (Glomerella) 1.0-1.5 lb/A (5% D)	Foliar application.
&050.0006	1.0-2.5 lb/A (50% WP)	Foliar application. Apply using 75 to 175 gallons of water per acre.
@FBAMAAX	Early blight (Alternaria)	Foliar application.
PFAAAGAP	Refer to Anthracnose (Glomerella) for use and limitation information.	
@FMAXSDG	Gray leaf spot (Stemphylium)	Foliar application.
PFAAAGAP	Refer to Anthracnose (Glomerella) for use and limitation information.	
@FHACBAW	Gray mold (Botrytis)	Foliar application.
PFAAAGAP	Refer to Anthracnose (Glomerella) for use and limitation information.	
@FBASPCN	Late blight (Phytophthora)	Foliar application.
PFAAAGAP	Refer to Anthracnose (Glomerella) for use and limitation information.	

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
----------------------	-----------------------------------	------------------------------------

Bentgrass (continued)

Leaf spot (Helminthosporium) (continued)

&005.0004	0.12-0.3 lb/ 1,000 sq.ft (5% G)	Foliar application. For a preventive program where disease has not been a problem, use the lower rate. Where disease has been a problem, apply 0.2 pound per 1,000 square feet. For curative treatment, apply at the higher rate in the late spring to early summer and continue at 10 to 14 day intervals to early fall.
&005.0004	0.13-0.2 lb/ 1,000 sq.ft (5% G)	Foliar application. For a preventive program, apply the lower rate in the spring before disease is present. Repeat applications at 10 to 14 day intervals. During periods of wet weather, apply at 7 day intervals. Continue applications throughout spring and summer. For curative treatment, use the higher rate. Do not mow or water lawn for 24 hours after treating.
&050.0006	0.12-0.25 lb/ 1,000 sq.ft (50% WP)	Foliar application. Apply in 5 gallons of water per 1,000 square feet. Repeat at 1 to 2 week intervals throughout the spring and summer months.
&050.0006	0.13-0.25 lb/ 1,000 sq.ft (50% WP)	Foliar application. Apply with garden hose sprayer or mix with 2.5 gallons of water and apply with a compressed air sprayer. Use 0.13 pound for disease prevention and 0.19 pound for spot treatment of diseased areas. If using a field sprayer, mix 0.13 to 0.25 pound in 5 gallons of water and apply. Begin applying in spring before disease appears and repeat at 10 to 14 day intervals. During periods of wet weather apply at 7 day intervals. Continue treating throughout spring and summer. If necessary, water lawn before treating.

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
----------------------	-----------------------------------	------------------------------------

Bentgrass (continued)

Red leaf spot (continued)

&050.0006	0.13-0.25 lb/ 1,000 sq.ft (50% WP)	Foliar application. Apply with garden hose sprayer or mix with 2.5 gallons of water and apply with a compressed air sprayer. Use 0.13 pound for disease prevention and 0.19 pound for spot treatment of diseased areas. If using a field sprayer, mix 0.13 to 0.25 pound in 5 gallons of water and apply. Begin applying in spring before disease appears and repeat at 10 to 14 day intervals. During periods of wet weather apply at 7 day intervals. Continue treating throughout spring and summer. If necessary, water lawn before treating.
-----------	--	---

@FMBYHAM
\$3301601

Zonate eye spot (Helminthosporium)

&005.0004

0.12-0.3 lb/ 1,000 sq.ft (5% G)	Foliar application. For a preventive program where disease has not been a problem, use the lower rate. Where disease has been a problem, apply 0.2 pound per 1,000 square feet. For curative treatment, apply at the higher rate in the late spring to early summer and continue at 10 to 14 day intervals to early fall.
---------------------------------------	---

&005.0004

0.13-0.2 lb/ 1,000 sq.ft (5% G)	Foliar application. For a preventive program, apply the lower rate in the spring before disease is present. Repeat applications at 10 to 14 day intervals. During periods of wet weather, apply at 7 day intervals. Continue applications throughout spring and summer. For curative treatment use the higher rate. Do not mow or water lawn for 24 hours after treating.
---------------------------------------	---

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
----------------------	-----------------------------------	------------------------------------

Bermudagrass (continued)

Leaf blotch (Helminthosporium) (continued)

&050.0006	0.13-0.25 lb/ 1,000 sq.ft (50% WP)	Foliar application. Apply with garden hose sprayer or mix with 2.5 gallons of water and apply with a compressed air sprayer. Use 0.13 pound for disease prevention and 0.19 pound for spot treatment of diseased areas. If using a field sprayer, mix 0.13 to 0.25 pound in 5 gallons of water and apply. Begin applying in spring before disease appears and repeat at 10 to 14 day intervals. During periods of wet weather, apply at 7 day intervals. Continue treating throughout spring and summer. If necessary, water lawn before treating.
-----------	--	--

/3301900

Bluegrass

@FMAQSAQ
\$3301901

Dollar spot (Sclerotinia)

Foliar application.

S3301601

Refer to Bentgrass, Dollar spot (Sclerotinia), Foliar application for use and limitation information.

@FMBCHAM
\$3301901

Leaf spot (Helminthosporium)

Foliar application.

S3301601

Refer to Bentgrass, Leaf spot (Helminthosporium), Foliar application for use and limitation information.

@FMBYHAM
\$3301901

Zonate eye spot (Helminthosporium)

Foliar applications.

S3301601

Refer to Bentgrass, Zonate eye spot (Helminthosporium), Foliar application for use and limitation information.

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
<u>Fescue</u> (continued)		
Helminthosporium blight (continued)		
&050.0006	0.13-0.25 lb/ 1,000 sq.ft (50% WP)	Foliar application. Apply with garden hose sprayer or mix with 2.5 gallons of water and apply with a compressed air sprayer. Use 0.13 pound for spot treatment of diseased areas. If using a field sprayer, mix 0.13 to 0.25 pound in 5 gallons of water and apply. Begin applying in spring before disease appears and repeat at 10 to 14 day intervals. During periods of wet weather, apply at 7 day intervals. Continue treating throughout spring and summer. If necessary, water lawn before treating.
@FMBCHAM \$3303101	Leaf spot (Helminthosporium)	Foliar application.
S3301601	Refer to Bentgrass, Leaf spot (Helminthosporium), Foliar application for use and limitation information.	
@FMBYHAM \$3303101	Zonate eye spot (Helminthosporium)	Foliar application.
PFBAAHAM	Refer to Helminthosporium blight for use and limitation information.	
/3303400	<u>Kentucky Bluegrass</u>	
@FBATHAM \$3303401 F &004.0004	Melting out (Helminthosporium) 0.16-0.24 lb/ 1,000 sq.ft (4% G)	Foliar application. Use lower rate for preventive treatment. Begin applying from early spring to early summer, repeating at 10 to 14 day intervals as long as cool, wet weather persists. For curative treatment apply at the higher rate at 10 day intervals until improvement is noted. Formulated with maneb.* *Contains 0.1 percent zinc as metallic.

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

<u>Site and Pest</u>		<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
3300800	<u>Ornamental Turf</u>		
FBAHRAM	Brown patch (Rhizoctonia)		
3300801		0.18-0.3 lb/ 1,000 sq.ft (3% G)	Foliar application. For a preventive program, begin applications before disease appears and repeat treatments as needed, usually at 10 to 14 day intervals. During extended periods of cool, moist conditions, applications at 7 day intervals are advisable. To control disease, repeat at 1 to 2 week intervals throughout the spring and summer months.
103.0004		or 0.2-0.3 lb/ 1,000 sq.ft (5% G)	
105.0004			
103.9004		0.16-0.23 lb/ 1,000 sq.ft (3.9% G)	Foliar application. Apply using the lower rate for a preventive program. Repeat applications at 2 week intervals throughout the season. If disease is already present, use the higher rate and apply at 10 day intervals until improvement is noted. Formulated with zinc ion and manganese ethylene bisdithiocarbamate 80 percent, a coordination product of manganese 16 percent, zinc 2 percent, ethylene bisdithiocarbamate 62 percent.
04.0004		0.16-0.24 lb/ 1,000 sq.ft (4% G)	Foliar application. Use lower rate for a preventive treatment. Begin applying from early spring to early summer, repeating at 10 to 14 day intervals as long as cool, wet weather persists. For curative treatment apply at the higher rate at 10 day intervals until improvement is noted. Formulated with maneb.* *Contains 0.1 percent zinc as metallic.

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
----------------------	-----------------------------------	------------------------------------

Ornamental Turf (continued)

Brown patch (Rhizoctonia) (continued)

&008.6004	0.13-0.22 lb/ 1,000 sq.ft (8.6% G)	Foliar application. Apply lower rate at 7 to 10 day intervals. During periods when conditions favor disease (warm, humid weather), use the higher rate and apply at 7 day intervals. During dry conditions, water lawn at rate of 10 gallons per 1,000 square feet before treating.
&008.7004	0.23 lb/ 1,000 sq.ft (8.7% G)	Foliar application. Apply treatment prior to or at first indication of disease and preferably on moist grass. Repeat at 10 to 14 day intervals during disease activity. In extreme cases, use at 7 day intervals. Do not water or mow for 24 hours after applying. If rain occurs within 24 hours after application, re-apply.
&025.0006 &050.0006	0.13-0.25 lb/ 1,000 sq.ft (25% WP) (50% WP)	Foliar application. Apply in 5 gallons of water. Repeat at 1 to 2 week intervals throughout the spring and summer months. For a preventive program, begin applications before the disease appears and repeat treatments at intervals of 10 to 14 days. During prolonged periods of cool, moist conditions, applications every 7 days may be advisable.
F &033.3306	0.08 lb/ 1,000 sq.ft (33.33% WP)	Foliar application. Apply in 5 gallons of water. For a preventive program, begin applications before disease appears, and continue throughout the spring and summer at 7 to 10 day intervals. Or, apply when disease first appears and continue at 7 to 10 day intervals through the season or as needed. Formulated with diethyl 4,4'-o-phenylenebis(3-thioallophanate).

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
<u>Ornamental Turf (continued)</u>		
@FMAQSAQ Dollar spot (Sclerotinia)		Foliar application.
PFBAHRAM		Refer to Brown patch (Rhizoctonia) for use and limitation information.
@FBAAFAK \$3300801 F &003.9004	Fusarium blight (Fusarium roseum) 0.16-0.23 lb/ 1,000 sq.ft (3.9% G)	Foliar application. Apply using the lower rate for a preventive program. Repeat applications at 2 week intervals throughout the season. If disease is already present, use the higher rate and apply at 10 day intervals until improvement is noted. Formulated with zinc ion and manganese ethylene bisdithiocarbamate 80 percent, a coordination product of manganese 16 percent, zinc 2 percent, ethylene bisdithiocarbamate 62 percent.
F &004.0004	0.16-0.24 lb/ 1,000 sq.ft (4% G)	Foliar application. For preventive treatment apply the lower rate. Begin applying from early spring to early summer, repeating at 10 to 14 day intervals as long as cool, wet weather persists. For curative treatment apply at the higher rate at 10 day intervals until improvement is noted. Formulated with maneb.* *Contains 0.1 percent of zinc as metallic.

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
----------------------	-----------------------------------	------------------------------------

Ornamental Turf (continued)

Leaf spot (Helminthosporium) (continued)

8004.4504	0.13-0.2 lb/ 1,000 sq.ft (4.45% G)	Foliar application. For a preventive program, use lower rate and apply before disease appears. Repeat as needed, usually at 10 to 14 day intervals. During periods of cool, moist conditions, applications at 7 day intervals may be advisable. To control disease spread, use the higher rate as soon as disease is noticed and repeat as for preventive program.
8005.0004	0.13-0.27 lb/ 1,000 sq.ft (5% G)	Foliar application. Apply at 7 to 14 day intervals throughout spring and summer. Do not apply if rain is expected within 24 hours. Do not water lawn after application.
8008.6004	0.13-0.22 lb/ 1,000 sq.ft (8.6% G)	Foliar application. Apply lower rate at 7 to 10 day intervals. During periods when conditions favor disease (warm, humid weather), use the higher rate and apply at 7 day intervals. During dry conditions, water lawn at rate of 10 gallons per 1,000 square feet before treating.
8008.7004	0.23 lb/ 1,000 sq.ft (8.7% G)	Foliar application. Apply treatment prior to or at first indication of disease. Repeat at 10 to 14 day intervals during disease activity. In extreme cases, use at 7 day intervals. Do not water or mow for 24 hours after applying. If rain occurs within 24 hours after application, re-apply.

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
<u>Ornamental Turf (continued)</u>		
FBATHAM 3300801	Melting out (Helminthosporium)	
003.0004	0.18-0.3 lb/ 1,000 sq.ft (3% G) or	Foliar application. For a preventive program, begin applications before disease appears and repeat treatments as needed, usually at 10 to 14 day intervals. During extended periods of cool, moist conditions, applications at 7 day intervals are advisable. To control disease, repeat at 1 to 2 week intervals throughout the spring and summer months.
005.0004	0.2-0.3 lb/ 1,000 sq.ft (5% G)	
003.9004	0.16-0.23 lb/ 1,000 sq.ft (3.9% G)	Foliar application. Apply using the lower rate for a preventive program. Repeat applications at 2 week intervals throughout the season. If disease is already present, use the higher rate and apply at 10 day intervals until improvement is noted. Formulated with zinc ion and manganese ethylene bisdithiocarbamate 80 percent, a coordination product of manganese 16 percent, zinc 2 percent, ethylene bisdithiocarbamate 62 percent.
004.4504	0.13-0.2 lb/ 1,000 sq.ft (4.45% G)	Foliar application. For a preventive program, use lower rate and apply before disease appears. Repeat as needed, usually at 10 to 14 day intervals. During periods of cool, moist conditions, applications at 7 day intervals may be advisable. To control disease spread, use the higher rate as soon as disease is noticed and repeat as for preventive program.
005.0004	0.13-0.27 lb/ 1,000 sq.ft (5% G)	Foliar application. Apply at 7 to 14 day intervals throughout spring and summer. Do not apply if rain is expected within 24 hours. Do not water lawn after application.

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
----------------------	-----------------------------------	------------------------------------

Ornamental Turf (continued)

Melting out (Helminthosporium) (continued)

050.0006	0.13-0.19 lb/ 1,000 sq.ft (50% WP)	Foliar application. Apply in 6 gallons of water. For a preventive program, use the lower rate and apply before the disease appears. Repeat at 10 to 14 day intervals. During wet or damp weather, apply at 7 day intervals. On new lawns, apply as soon as seeds germinate and repeat at 10 day intervals until lawn is established. If disease is already present, use applications at 7 day intervals. If disease is already present, use the higher rate and make at least 3 successive applications at 7 day intervals. After grass has recovered, use the preventive program. If necessary, water lawn before applying. After treatment, do not water lawn for 48 hours.
----------	--	---

BAXCEF Red thread (Pink patch)

300801

13.9004

0.16-0.23 lb/ 1,000 sq.ft (3.9% G)	Foliar application. Apply using the lower rate for a preventive program. Repeat applications at 2 week intervals throughout the season. If disease is already present, use the higher rate and apply at 10 day intervals until improvement is noted. Formulated with zinc ion and manganese ethylene bisdithiocarbamate 80 percent, a coordination product of manganese 16 percent, zinc 2 percent, ethylene bisdithiocarbamate 62 percent.
--	---

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
<u>Ornamental Turf</u> (continued)		
Rust (Puccinia) (continued)		
F 8004.0004	0.16-0.24 lb/ 1,000 sq.ft (4% G)	Foliar application. For preventive treatment apply the lower rate. Begin applying from early spring to early summer, repeating at 10 to 14 day intervals as long as cool, wet weather persists. For curative treatment apply at the higher rate at 10 day intervals until improvement is noted. Formulated with maneb.* *Contains 0.1 percent zinc as metallic.
8004.4504	0.13-0.2 lb/ 1,000 sq.ft (4.45% G)	Foliar application. For a preventive program, use lower rate and apply before disease appears. Repeat as needed, usually at 10 to 14 day intervals. During periods of cool, moist conditions, applications at 7 day intervals may be advisable. To control disease spread, use the higher rate as soon as disease is noticed and repeat as for preventive program.
8005.0004	0.13-0.2 lb/ 1,000 sq.ft (5% G)	Foliar application. For a preventive program, apply the lower rate in the spring before disease is present. Repeat applications at 10 to 14 day intervals. During periods of wet weather, apply at 7 day intervals. Continue applications throughout spring and summer. For curative treatment use the higher rate. Do not mow or water lawn for 24 hours after treating.

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
<u>Ornamental Turf (continued)</u>		
Rust (Puccinia) (continued)		
&050.0006	0.13-0.25 lb/ 1,000 sq.ft (50% WP)	Foliar application. Apply with garden hose sprayer or mix with 2.5 gallons of water and apply with a compressed air sprayer. Use 0.13 pound for disease prevention and 0.19 pound for spot treatment of diseased areas. If using a field sprayer, mix 0.13 to 0.25 pound in 5 gallons of water and apply. Begin applying in spring before disease appears and repeat at 10 to 14 day intervals. During period of wet weather, apply at 7 day intervals. Continue treating throughout spring and summer. If necessary, water lawn before treating.
@FHAJFAK \$3300801 F &003.9004	Snow mold (Fusarium) 0.23 lb/ 1,000 sq.ft (3.9% G)	Foliar application. Apply in November and repeat during a mid-winter thaw. Formulated with zinc ion and manganese ethylene bithiocarbamate 80 percent, a coordination product of manganese 16 percent, zinc 2 percent, ethylene bisdithiocarbamate 62 percent.
F &004.0004	0.24 lb/1,000 sq.ft (4% G)	Foliar application. Apply after first killing frost and in mid-winter when the ground is free of snow. Formulated with maneb.* *Contains 0.1 percent zinc as metallic.

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
<u>Ornamental Turf (continued)</u>		
Snow mold (Typhula)		
025.0006	0.13 lb/ 1,000 sq.ft (25% WP) or	Foliar application. Apply in 5 gallons of water. The first application should be made after the first killing frost in the fall. A second application should be made in mid-winter when the lawn is free of snow, and a third application after the final melting of snow in late winter or early spring.
050.0006	0.06 lb/ 1,000 sq.ft (50% WP) or	
050.0006	0.13 lb/ 1,000 sq.ft (50% WP)	
050.0006	0.13-0.19 lb/ 1,000 sq.ft (50% WP)	
050.0006	0.13-0.19 lb/ 1,000 sq.ft (50% WP)	Foliar application. Apply in 6 gallons of water. The first application should be made after the first killing frost in the fall. A second application should be made in mid-winter when the lawn is free of snow, and a third application after the final melting of snow in late winter or early spring.
050.0006	0.13-0.19 lb/ 1,000 sq.ft (50% WP)	Foliar application. Apply with garden hose sprayer or mix with 2.5 gallons of water and apply with a compressed air sprayer. For disease prevention use the lower rate and apply in the spring before the disease appears. Repeat at 10 to 14 day intervals. During extended periods of wet weather, applications at 7 day intervals may be required. For spot treatment of diseased areas, use the higher rate. Continue treating throughout the spring and summer months. If necessary, water lawn before treating.

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

<u>Site and Pest</u>	<u>Dosages and Formulation(s)</u>	<u>Tolerance, Use, Limitations</u>
----------------------	-----------------------------------	------------------------------------

Ryegrass (continued)

Brown blight (Helminthosporium) (continued)

&005.0004	0.13-0.2 lb/ 1,000 sq.ft (5% G)	Foliar application. For a preventive program, apply the lower rate in the spring before disease is present. Repeat applications at 10 to 14 day intervals. During periods of wet weather, apply at 7 day intervals. Continue applications throughout spring and summer. For curative treatment use the higher rate. Do not mow or water lawn for 24 hours after treating.
&005.0004	0.13-0.3 lb/ 1,000 sq.ft (5% G)	Foliar application. Apply at the lower rate where disease has not been a problem and a preventive program is desired. Apply 0.2 pound active per 1,000 square feet where disease has been a problem during previous years and a preventive program is desired. For a curative treatment, apply at the higher rate in the early spring and continue at 10 to 14 day intervals as long as cool, wet weather persists.
&050.0006	0.13-0.25 lb/ 1,000 sq.ft (50% WP)	Foliar application. Apply with garden hose sprayer or mix with 2.5 gallons of water and apply with a compressed air sprayer. Use 0.13 pound for disease prevention and 0.19 pound for spot treatment of diseased areas. If using a field sprayer, mix 0.13 to 0.25 pound in 5 gallons of water and apply. Begin applying in spring before disease appears and repeat at 10 to 14 day intervals. During period of wet weather, apply at 7 day intervals. Continue treating throughout spring and summer. If necessary, water lawn before treating.

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

Listing of Registered Pesticide Products by Formulation

&092.0001 #	<u>92% technical chemical</u> 2,4-dichloro-6-(o-chloroanilo)-s-triazine (080811) 003125-00199
&095.0001 #	<u>95% technical chemical</u> 2,4-dichloro-6-(o-chloroanilo)-s-triazine (080811) 003125-00198
&050.0002 #	<u>50% formulation intermediate</u> 2,4-dichloro-6-(o-chloroanilo)-s-triazine (080811) 002749-00094
&080.0002 #	<u>80% formulation intermediate</u> 2,4-dichloro-6-(o-chloroanilo)-s-triazine (080811) 003125-00175
&005.0003 #	<u>5% dust</u> 2,4-dichloro-6-(o-chloroanilo)-s-triazine (080811) 003125-00062
&003.0004 #	<u>3% granular</u> 2,4-dichloro-6-(o-chloroanilo)-s-triazine (080811) 000827-00209 003125-00107
&003.9004 #	<u>3.9% granular</u> 2,4-dichloro-6-(o-chloroanilo)-s-triazine (080811) plus zinc ion and manganese ethylene bisdithiocarbamate 80 percent, a coordination prod- uct of manganese 16 percent, zinc 2 percent, ethylene bisdithiocarba- mate 62 percent (014504) 005238-00015
&004.0004 #	<u>4% granular</u> 2,4-dichloro-6-(o-chloroanilo)-s-triazine (080811) plus maneb* (014505) *includes 0.1 percent zinc as metallic 000779-00068
&004.4504 #	<u>4.45% granular</u> 2,4-dichloro-6-(o-chloroanilo)-s-triazine (080811) 003234-00037
&005.0004 #	<u>5% granular</u> 2,4-dichloro-6-(o-chloroanilo)-s-triazine (080811) 000572-00214 000779-00097 001159-00174 003125-00125 003493-00007 004185-00211 005535-00096
&008.6004 #	<u>8.6% granular</u> 2,4-dichloro-6-(o-chloroanilo)-s-triazine (080811) 000572-00250

EPA Index to Pesticide Chemicals

2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

Listing of Registered Pesticide Products by Formulation (continued)

&008.7004 #	<u>8.7% granular</u> 2,4-dichloro-6-(o-chloroanilo)-s-triazine (080811) 000538-00073 -000538-00074
&025.0006 #	<u>25% wettable powder</u> 2,4-dichloro-6-(o-chloroanilo)-s-triazine (080811) 010088-00037
&033.3306 #	<u>33.33% wettable powder</u> 2,4-dichloro-6-(o-chloroanilo)-s-triazine (080811) plus diethyl 4,4'-o-phenylenebis(3-thioallophanate) (103401) 001001-00055
&050.0006 #	<u>50% wettable powder</u> 2,4-dichloro-6-(o-chloroanilo)-s-triazine (080811) 000004-00246 000239-02242 000904-00229 001990-00343 002169-00238 002217-00551 002217-00631 002749-00120 002749-00122 003125-00050 003125-00080 003125-00127 003125-00216 005535-00058 010155-00009

EPA Index to Pesticide Chemicals
2,4-DICHLORO-6-(O-CHLOROANILO)-S-TRIAZINE

State Label Registrations

CA Reg. No.

✓001202-05070 003125-07851 003234-04890 003234-04893
007001-07707

Auxiliary Documentation (Update) December 9, 1983

2, 4-Dichloro-6-(O-chloroanilino)-s-triazine

- 080811* -

This is auxiliary to the Fungicide Index Entry with an issue date of 04-07-79, which was produced in February 1981. A current computer printout (PRD-1 issued: 12-02-83) shows that since February 1981, Registration # 000538-00073, an 8.7% granular was updated in August 1981. A review of the updated label showed that the "update" has not changed the rate of application, or the use pattern of this product.

Three other registration numbers which did not appear in the original report, but are on the current printout are as follows:

007001-00280 (50% WP)

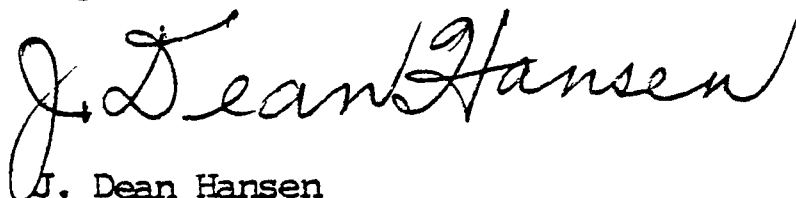
007001-00281 (3% G)

009198-00064 (5% G)

The first 2 of these were in the process of being transferred between pesticide companies and were unavailable when the index entry was being produced early in 1981. The latter was registered in March 1982. The use patterns, rate of application and target pests of these products are covered by the existing index entry, therefore, updating in addition to this document, is deemed unnecessary at this time.

Index entry validation: EPA Compenium of Registered Pesticides, Vol. II. Fungicides and Nematicides, 6-01-74, Part I. pp. D-07-00.01-2

Signed:



J. Dean Hansen
Plant Pathologist
703/557-7494

*Anilazine
*Dyrene™

II. REQUIREMENT FOR SUBMISSION OF GENERIC DATA

- A. This portion of the guidance document is a Notice issued under the authority of FIFRA Section 3(c)(2)(B) and describes, in table format, the data required for maintaining the registrability of each product. Additionally, a bibliography (Appendix II-1) is included that identifies that data considered as part of the data base supporting this standard. EPA has determined that additional generic data described in this Notice must be submitted to EPA for evaluation in order to maintain in effect the registration(s) of your product(s) identified as an attachment to the cover letter accompanying this guidance document. As required by FIFRA Section 3(c)(2)(B), you are required to take appropriate steps to comply with this Notice.

EPA may suspend the registration of each of those products unless, within the specified time, you have informed EPA how you will satisfy the requirements of this Notice. Any such suspension will remain in effect until you have complied with the terms of this Notice.

- B. What Generic Data ^{1/} Must Be Submitted. You may ascertain which generic data you must submit by consulting Table A at the end of this chapter. That table shows all the generic data needed to evaluate the continued registrability of all products, and the dates by which the data must be submitted. The required data must be submitted and any necessary studies must be conducted in accordance with EPA-approved protocols, the Pesticide Registration Guidelines ^{2/}, or data collected under the approved protocols of the Organization for Economic Cooperation and Development (OECD). If you wish not to develop data which are necessary to support the registration or reregistration of certain uses appearing in your labeling, you may delete those uses at the time you submit your revised labeling.

Also for certain kinds of testing (generally ecological effects), EPA requires the test substance to be a "typical formulation," and in those cases EPA needs data of that

^{1/} Generic data pertain to the properties or effects of a particular ingredient, and thus are relevant to an evaluation of the risks of all products containing that ingredient (or all such products having a certain use pattern), regardless of any such product's unique composition or use. Product-specific data relate only to the properties or effects of a product with a particular composition (or a group of products with closely similar composition).

^{2/} The Pesticide Registration Guidelines were repropoed on November 24, 1982 in 47 Federal Register 53192.

type for each major formulation category (e.g., emulsifiable concentrates, wettable powders, granulars, etc.) These are classified as generic data and when needed are specified in Table A. EPA may possess data on certain "typical formulations" but not others. Note: The "typical formulation" data should not be confused with product-specific data (Table B) which are required on each formulation. Product-specific data are further explained in Chapter IV of this document.

C. Options Available for Complying With Requirements to Submit Data

Within 90 days of your receipt of this Notice you must submit to EPA a completed copy of the form entitled "FIFRA Section 3(c)(2)(B) Summary Sheet" [EPA Form 8580-1, Appendix II-2] for each of your products. On that form you must state which of the following methods you will use to comply with the requirements of this Notice:

1. (a) Notify EPA that you will submit the data, and
(b) either submit the existing data you believe will satisfy the requirement, or state that you will generate the data by conducting testing. If the test procedures you will use deviate from (or are not specified in) the Registration Guidelines or protocols contained in the Reports of Expert Groups to the Chemicals Group, Organization for Economic Cooperation and Development (OECD) Chemicals Testing Programme, you must enclose the protocols you will use.
2. Notify EPA that you have entered into an agreement with one or more other registrants to jointly develop (or share in the cost of developing) the data. If you elect this option, you must notify EPA which registrant(s) are parties to the agreement.
3. File with EPA a completed "Certification of Attempt to Enter Into an Agreement With Other Registrants for Development of Data" (EPA Form 8580-6, Appendix II-3)*.
4. Request that EPA amend your registration by deleting the uses for which the data are needed. (This option is not available to applicants for new products.)

*/ FIFRA Section 3(c)(2)(B) authorizes joint development of data by two or more registrants, and provides a mechanism by which parties can obtain an arbitrator's decision if they agree to jointly develop data but fail to agree on all the terms of the agreement. The statute does not compel any registrant to agree to develop data jointly.
(Footnote continued at bottom of next page)

5. Request voluntary cancellation of the registration(s) of your products for which the data are needed. (This option is not available to applicants for new products.)

D. Procedures for Requesting Changes in Testing Methodology and Extensions of Time

EPA recognizes that you may disagree with our conclusions regarding the appropriate ways to develop the required data or how quickly the data must be submitted. If the test procedures you plan to use deviate from (or are not specified in) the registration guidelines or protocols contained in the reports of the Expert Groups to the Chemical Groups, Organization for Economic Cooperation and Development (OECD) Chemicals Testing Programme, you must submit the protocol for Agency review prior to the initiation of the test.

If you think that you will need more time to generate the required data than is allowed by EPA's schedule, you may submit a request for an extension of time. The extension request must be submitted in writing to the Product Manager. The extension request should state the reasons why you conclude that an extension is appropriate. While EPA considers your request, you must strive to meet the deadline for submitting the required data.

(Footnote continued from previous page)

In EPA's opinion, joint data development by all registrants who are subject to the requirements to submit a pertinent item of data or a cost-sharing agreement among all such registrants is clearly in the public interest. Duplication of testing could increase costs, tie up testing facilities, and subject an unnecessarily large number of animals to testing.

As noted earlier, EPA has discretion not to suspend the registration of a product when a registrant fails to submit data required under FIFRA Section 3(c)(2)(B). EPA has concluded that it is appropriate to exercise its discretion not to suspend in ways which will discourage duplicative testing. Accordingly, if (1) a registrant has informed us of his intent to develop and submit data required by this Notice; and (2) a second registrant informs EPA that it has made a bona fide offer to the first registrant to share in the expenses of the testing [on terms to be agreed upon or determined by arbitration under FIFRA Section 3(c)(2)(B)(iii)]; and (3) the first registrant has declined to agree to enter into a cost-sharing agreement, EPA will not suspend the second firm's registration. While the first firm is not required to agree to jointly develop data, EPA is not required to force the second firm to engage in economically inefficient duplicative testing in order to maintain its registration.

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

Data Requirement	Composition ^{1/}	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? ^{2/}
<u>\$158.120 Product Chemistry</u>				
<u>Product Identity:</u>				
61-1 - Identity of Ingredients	TGAI	Yes	GS01140021, GS01140023	No
61-2 - Statement of Composition	TGAI	No		Yes
61-3 - Discussion of Formation of Ingredients	TGAI	No		Yes
<u>Analysis and Certification of Product Ingredients</u>				
62-1 - Preliminary Analysis	TGAI	No		Yes
62-2 - Certification of Limits	TGAI	No		Yes
62-3 - Analytical Methods for Enforcement of Limits	TGAI	Partially	GS01140022	Yes ^{3/}
<u>Physical and Chemical Characteristics</u>				
63-2 - Color	TGAI	Yes	GS01140024, ^{6/} GS01140025 ^{6/}	Yes ^{4/}
63-3 - Physical State	TGAI	Yes	GS01140024, ^{6/} GS01140025 ^{6/}	No
63-4 - Odor	TGAI	No		Yes
63-5 - Melting Point	TGAI	Yes	GS01140024, ^{6/} GS01140025 ^{6/}	Yes ^{4/}
63-6 - Boiling Point	TGAI	Not Applicable		
63-7 - Density, Bulk Density, or Specific Gravity	TGAI	Yes	GS01140024, ^{6/} GS01140025 ^{6/}	Yes ^{4/}

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

Data Requirement	Composition ^{1/}	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? ^{2/}
<u>\$158.120 Product Chemistry</u> (continued)				
63- 8 - Solubility	TGAI OR PAI	Partially	GS01140024, ^{6/} GS01140025 ^{6/}	Yes ^{5/}
63- 9 - Vapor Pressure	PAI	No		Yes
63-10 - Dissociation constant	PAI	No		Yes
63-11 - Octanol/water partition coefficient	PAI	No		Yes
63-12 - pH	TGAI	No		Yes
63-13 - Stability	TGAI	Yes	GS01140024, ^{6/} GS01140025 ^{6/}	Yes ^{4/}
<u>Other Requirements:</u>				
64- 1 - Submittal of samples	Choice	Not Applicable		

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

§158.120 Product Chemistry
(continued)

- 1/ Composition: TGAI = Technical grade of the active ingredient; PAI = Pure active ingredient; Choice = Choice of several test substances determined on a case-by-case basis.
- 2/ Data must be submitted no later than 6 months from the date of this Standard.
- 3/ Quantitative methods are required to determine impurities present at >0.1% by weight.
- 4/ This information must be submitted for the 92% technical formulation.
- 5/ The lack of a specific quantity for water solubility constitutes a data gap as does the presentation of solubilities in other solvents at 30°C (rather than the required 20°C). (Solubility should be expressed in terms of g/100 ml of solvent at 20°C (68°F) or in terms of ppm (mg/kg)).
- 6/ Submitted by Mobay Chemical Company. May be compensable.

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

Data Requirements	Composition ^{1/}	Does EPA Have Data To Satisfy This Requirement? (Yes, No, or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? ^{2/}
<u>\$158.125 Residue Chemistry</u>				
171-4 - Nature of Residue (Metabolism)				
- Plants	PAIRA	No		Yes
- Livestock	PAIRA and plant metabolites	No		Yes
171-4 - Residue Analytical Method				
- Plant residues	TGAI and metabolites	Yes	GS01140004 ^{24/}	Yes ^{3/}
- Animal residues	TGAI and metabolites	No		Yes ^{4/}
171-4 - Storage Stability Data	PAI	No		Yes
171-4 - Magnitude of the Residue- Residue Studies for Each Food Use				
- Crop Group #1 - Root and Tuber Vegetables				
o Crop 1 - Potatoes				
-- Crop field trials	TEP	Partial	GS01140005, ^{24/} GS01140006 ^{24/}	Yes ^{5/}
-- Processed Food/Feed	EP	No		Yes ^{6/}

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

Data Requirements	Composition ^{1/}	Does EPA Have Data To Satisfy This Requirement? (Yes, No, or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? ^{2/}
<u>\$158.125 Residue Chemistry</u> (continued)				
171-4 - Magnitude of the Residue- Residue Studies for Each Food Use				
- Crop Group #2 - Bulb Vegetables (Allium spp.)				
° Crop 1 - Garlic				
-- Crop Field Trials	TEP	Partially	GS01140007 ^{24/}	Yes ^{7/}
-- Processed Food/Feed	EP	Not Applicable		
° Crop 2 - Onions (green & dry bulb)				
-- Crop Field Trials	TEP	Partially	GS01140007 ^{24/} , GS01140008 ^{24/}	Yes ^{8/}
-- Processed Food/Feed	EP	Not Applicable		
° Crop 3 - Shallots				
-- Crop Field Trials	TEP	Partially	GS01140009 ^{24/}	Yes ^{9/}
-- Processed Food/Feed	EP	Not Applicable		
- Crop Group #3 - Leafy Vegetables				
° Crop 1 - Celery				
-- Crop Field Trials	TEP	Partially	GS01140010 ^{24/} , GS01140011 ^{24/}	Yes ^{10/}
-- Processed Food/Feed	EP	Not Applicable		

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

Data Requirement	Composition ^{1/}	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? ^{2/}
<u>\$158.125 Residue Chemistry</u> (continued)				
171-4 - Magnitude of the Residue- Residue Studies for Each Food Use				
- Crop Group #4 - Fruiting Vegetables (except cucurbits)				
° Crop 1 - Tomatoes				
-- Crop Field Trials	TEP	Partially	GS01140005 ^{24/}	Yes ^{11/}
-- Processed Food/Feed	EP	No		Yes ^{12/}
- Crop Group #5 - Cucurbit Vegetables				
° Crop 1 - Cucumbers				
-- Crop Field Trials	TEP	Yes	GS01140012 ^{24/}	No ^{13/}
-- Processed Food/Feed	EP	Not Applicable		
° Crop 2 - Melons				
-- Crop Field Trials	TEP	Partially	GS01140013 ^{24/}	Yes ^{14/}
-- Processed Food/Feed	EP	Not Applicable		

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

Data Requirement	Composition ^{1/}	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? ^{2/}
<u>§158.125 Residue Chemistry</u> (continued)				
171-4 - Magnitude of the Residue- Residue Studies (continued)				
° Crop 3 - Pumpkins				
-- Crop Field Trials	TEP	Partially	GS01140014 ^{24/}	Yes ^{15/}
-- Processed Food/Feed	EP	Not Applicable		
° Crop 4 - Squash (summer)				
-- Crop Field Trials	TEP	Yes	GS01140015 ^{24/}	No ^{16/}
-- Processed Food/Feed	EP	Not Applicable		
° Crop 5 - Squash (winter)				
-- Crop Field Trials	TEP	Partial	GS01140015 ^{24/}	Yes ^{17/}
-- Processed Food/Feed	EP	Not Applicable		
- Crop Group #6 - Small Fruits and Berries				
° Crop 1 - Blackberries				
-- Crop Field Trials	TEP	Partial	GS01140016, ^{24/} GS01140017 ^{24/}	Yes ^{18/}
-- Processed Food/Feed	EP	Not Applicable		

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

Data Requirement	Composition ^{1/}	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? ^{2/}
<u>\$158.125 Residue Chemistry</u> (continued)				
171-4 - Magnitude of the Residue Residue Studies (continued)				
- Crop Group #6 - Small Fruits and Berries				
° Crop 2 - Blueberries (huckleberries)				
-- Crop Field Trials	TEP	Partial	GS01140018 ^{24/}	Yes ^{19/}
-- Processed Food/Feed	EP	Not Applicable		
° Crop 3 - Cranberries				
-- Crop Field Trials	TEP	Partial	GS01140019 ^{24/}	Yes ^{20/}
-- Processed Food/Feed	EP	Not Applicable		
° Crop 4 - Dewberries and Loganberries				
-- Crop Field Trials	TEP	Partial	GS01140017 ^{24/}	No ^{21/}
-- Processed Food/Feed	EP	Not Applicable		
° Crop 5 - Raspberries				
-- Crop Field Trials	TEP	Partial	GS01140017 ^{24/}	No ^{21/}
-- Processed Food/Feed	EP	Not Applicable		

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

Data Requirement	Composition ^{1/}	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? ^{2/}
<u>\$158.125 Residue Chemistry</u> (continued)				
171-4 - Magnitude of the Residue - Residue Studies (continued)				
- Crop Group #6 - Small Fruits and Berries				
° Crop 6 - Strawberries				
-- Crop Field Trials	TEP	Partial	GS01140020 ^{24/}	Yes ^{22/}
-- Processed Food/Feed	EP	Not Applicable		
- Crop Group #7 - Miscellaneous Commodities				
° Crop 1 - Tobacco				
-- Crop field trials	TEP	No		Yes ^{23/}
-- Processed Food/Feed	EP	Not Applicable		
- Potable Water	EP	Not Applicable		
- Fish	EP	Not Applicable		
- Irrigated Crops	EP	Not Applicable		
-- Field trials	EP	Not Applicable		
-- Processed Food/Feed	EP	Not Applicable		
- Food Handling	EP	Not Applicable		
- Meat/milk/poultry/eggs	TGAI or plant metabolites	No		Yes

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

\$158.125 Residue Chemistry
(continued)

- 1/ Composition: TGAI = Technical grade of the active ingredient; PAIRA = Pure active ingredient, radiolabelled; TEP = Typical end-use product; EP = End-use product.
- 2/ Data must be submitted no later than 6 months from the date of this Standard.
- 3/ Tolerances for anilazine residues in or on plants are currently expressed in terms of the parent compound only. Should plant metabolism studies show the parent compound is the only residue of concern, then the analytical method submitted is adequate for analysis, but not for tolerance enforcement because other compounds (parathion, methyl parathion, guthion, amitrole, chlorpropham, dinoseb and diuron) may interfere. In this case, the following data gaps exist:
 - ° Suitable methods are required for enforcement of all tolerances expressed in terms of the parent compound. If the residues of concern in plants are determined to be compounds other than the parent moiety, then a suitable method would be required which determines these residues.
 - ° A confirmatory test for anilazine residues in plants is required.
- 4/ Required unless feeding studies indicate the feed uses are to be classified in category 3 of 40 CFR 180.6 (a), i.e., no tolerances are required.
- 5/ The following additional data are required:
 - ° Field trials conducted in CA and either in ID, OK or WA which include multiple foliar applications (no less than 12 at weekly intervals) with the 50% WP at 2.5 lb ai/A using ground and aerial equipment.
 - ° Field trials conducted in northeastern and northwestern growing regions which include multiple foliar applications (no less than 12 weekly intervals) with the 5%D at 2.0 lb ai/A using ground and aerial equipment. The data should reflect residues from multiple applications (12 - 16) at the highest permissible application rate applied up to the time of harvest.
- 6/ A processing study for dried potatoes, potato granules and chips will be required.
- 7/ The following additional data are required:
 - ° Field trials in CA reflecting multiple foliar applications (no less than 16 at weekly intervals) with the 5%D and 50% WP at the maximum recommended rate of 2 and 3 lbs ai/A, respectively, using ground and aerial application and subsequent residue analysis of the dry bulbets (cloves) applied up to the time of harvest.
- 8/ The following additional data are required:
 - ° Field trials on green onions reflecting multiple foliar applications (green onions from sets require no less than four treatments at weekly intervals; green onions from seed require no less than 16 treatments at weekly intervals) with the 5%D and 50% WP at the maximum recommended rates of 2 and 1.5 lb ai/A, respectively, using ground and aerial equipment and subsequent residue analysis of the whole plant. Adequate geographic representation must be used (TX, CA or AZ).

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

\$158.125 Residue Chemistry
(continued)

- ° Field trials on bulb onions reflecting multiple foliar applications (no less than 16 at weekly intervals) with the 5% D and 50% WP at the maximum recommended rates of 2 and 3 lbs ai/A, respectively, using ground and aerial equipment and subsequent residue analysis of the dry bulbs up to the time of harvest. Adequate geographic representation must be used (OK or WA, CA and MI).
- 9/ The following additional data are required:
 - ° Field trials reflecting multiple foliar applications (no less than 16 at weekly intervals) with the 5% D at 2 lb ai/A using ground and aerial equipment and subsequent residue analysis of the whole plant. Tests must be conducted in LA.
- 10/ The following additional data are required:
 - ° Twelve weekly applications of the 5% D at 2 lb ai/A in CA or OR using aerial and ground equipment.
 - ° Tests conducted in western locations (CA or OR) using the 50% WP at 3 lbs ai/A using both ground and aerial applications (12 weekly treatments per season).
- 11/ The following additional data are required:
 - ° Residue data from western locations, particularly CA using both the 50% WP and 5% D formulations at 2.5 lbs ai/A and 1.5 lbs ai/A, respectively, and using both ground and aerial equipment. At least eight weekly applications must be made.
- 12/ Residue data for the processed products of tomatoes (catsup, juice, puree and wet and dry pomace) must be submitted to determine the necessity of food/feed additive tolerances.
- 13/ Consideration should be given to a lower tolerance based upon the fact that the highest anilazine residue level encountered was 1.23 ppm. A 5 ppm tolerance would be more appropriate.
- 14/ The following additional data are required:
 - ° Tests (8 applications) conducted in western locations, particularly CA, using both the 5% D and 50% WP at 3 lbs ai/A and using both ground and aerial equipment.
- 15/ The following additional data are required:
 - ° Residue data from tests conducted in western, eastern and southern locations using both the 50% WP and 5% D formulations at 3 lbs ai/A. Twelve treatments must be applied using aerial and ground equipment.
- 16/ Consideration should be given to a lower tolerance. A tolerance of 5 ppm would be more appropriate.
- 17/ The following additional data are required:
 - ° Tests conducted in southern and western locations using both the 5% D and 50% WP at 3 lbs ai/A and using ground and aerial equipment.
- 18/ The following additional data are required:
 - ° Residue data for blackberries following 10 or more aerial and ground applications of the 5% D and 50% WP at 3 and 2 lbs ai/A, respectively, made at weekly intervals in OR or WA.

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

\$158.125 Residue Chemistry
(continued)

- 19/ The following additional data are required:
° Residue data for blueberries reflecting at least 10 weekly aerial and ground applications of the 50% WP at 1.5 lb ai/A.
- 20/ The following additional data are required:
° Residue data reflecting 16 weekly aerial and ground applications of the 50% WP at 3 lbs ai/A conducted in WI.
- 21/ When the requested data for blackberries are provided, they will be translated to dewberries, loganberries and raspberries.
- 22/ The following additional data are required:
° Residue data reflecting 8 weekly aerial and ground applications of the 5% D and 50% WP at 2 and 3 lbs ai/A, respectively.
- 23/ The following data are required to assess the exposure of man to residues of anilazine in or on tobacco:
° Residue analysis of green tobacco after the last of at least 7 foliar treatments with the 50% WP at 1 lb ai/A using ground and aerial equipment.
° If residues in green tobacco are >0.1ppm, pyrolysis products must be characterized.
- 24/ Submitted by Mobay Chemical Corporation. May be compensable.

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

Data Requirement	Composition ^{1/}	Use ^{2/} Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? ^{3/}
<u>\$158.130 Environmental Fate</u>					
<u>DEGRADATION STUDIES-LAB:</u>					
161-1 - Hydrolysis	TGAI or PAIRA	A,B,H	No		Yes ^{4/}
<u>Photodegradation</u>					
161-2 - In water	TGAI or PAIRA	A,B	No		Yes
161-3 - On soil	TGAI or PAIRA	A,B	No		Yes ^{5/}
161-4 - In Air	TGAI or PAIRA	A,B	No		No
<u>METABOLISM STUDIES-LAB:</u>					
162-1 - Aerobic Soil	TGAI or PAIRA	A,B,H	No		Yes ^{6/}
162-2 - Anaerobic Soil	TGAI or PAIRA	A,B	No		Yes
162-3 - Anaerobic Aquatic	TGAI or PAIRA	A	No		Yes ^{7/}
162-4 - Aerobic Aquatic	TGAI or PAIRA	A	No		Yes
<u>MOBILITY STUDIES:</u>					
163-1 - Leaching and Adsorption/Desorption	TGAI or PAIRA	A,B,H	Partially ^{8/}	00025729 ^{17/}	Yes
163-2 - Volatility (Lab)	TEP	A,B	No		Yes ^{9/}
163-3 - Volatility (Field)	TEP	A,B	No		Yes

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

Data Requirement	Composition	<u>1/</u> Use <u>2/</u> Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? <u>3/</u>
<u>\$158.130 Environmental Fate</u> (continued)					
<u>DISSIPATION STUDIES-FIELD:</u>					
164-1 - Soil	TEP	A,B,H	No		Yes
164-2 - Aquatic (Sediment)	TEP	A	No		Yes <u>10/</u>
164-3 - Forestry	TEP	-	No		No <u>11/</u>
164-4 - Combination and Tank Mixes	-	-	No		No <u>12/</u>
164-5 - Soil, Long-term	TEP	A,B	No		No <u>13/</u>
<u>ACCUMULATION STUDIES:</u>					
165-1 - Rotational Crops (Confined)	PAIRA	A,B	No		Yes <u>14/</u>
165-2 - Rotational Crops (Field)	TEP	A,B	No		Yes <u>15/</u>
165-3 - Irrigated Crops	TEP	A	No		Yes <u>16/</u>
165-4 - In Fish	TGAI or PAIRA	A,B	No		Yes <u>17/</u>
165-5 - In Aquatic Non-Target Organisms	TEP	A	No		Yes <u>18/</u>
158.145 Reentry Studies	-	A,B	No		Yes <u>19/</u>

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

§158.130 Environmental Fate
(continued)

- 1/ Composition: TGAI = Technical grade of the active ingredient; PAIRA = Pure active ingredient, radiolabelled; TEP = Typical end-use product.
- 2/ The use patterns are coded as follows: A=Terrestrial, Food Crop; B=Terrestrial, Non-Food; C=Aquatic, Food Crop; D=Aquatic, Non-Food; E=Greenhouse, Food Crop; F=Greenhouse, Non-Food; G=Forestry; H=Domestic Outdoor; I=Indoor.
- 3/ Data must be submitted no later than 48 months.
- 4/ Hydrolysis studies: One study was reviewed (05001459) that is scientifically invalid because it was not carried out in darkness. All data are required.
- 5/ Photodegradation in Air: No data were submitted; however, no data are required because anilazine does not have a greenhouse use.
- 6/ Aerobic soil metabolism studies: One study was reviewed (05001459) that is scientifically valid but does not partially or totally fulfill data requirements because a 50% commercial formulation was used and not the technical or purer grade of anilazine. All data are required.
- 7/ Anaerobic aquatic metabolism studies: No data were submitted, but all data are required. The anaerobic aquatic metabolism data may be substituted for the anaerobic soil metabolism data, but the reverse is not permissible.
- 8/ Leaching and adsorption/desorption studies: Two studies were reviewed; one study (00065859) is scientifically invalid because anilazine could not be detected with enough precision by using a nonspecific fungal bioassay. The other study (00025729) is scientifically valid and partially fulfills data requirements by providing soil TLC mobility data on anilazine in six soils. To satisfy the terrestrial food crop uses, a study is needed to assess the mobility of anilazine and its degradates after the pesticide has been aged in soil. Soil TLC, soil column, or batch equilibrium (adsorption/desorption) techniques may be utilized. To satisfy the mobility data requirements for the domestic outdoor use, batch equilibrium (adsorption/desorption) studies on a minimum of four soils, such as sand (agricultural), sandy loam, silt loam, clay, or clay loam are required. For the aquatic use, batch equilibrium (adsorption/desorption) studies on one aquatic sediment obtained from or representative of the aquatic use area are required.
- 9/ Laboratory and field volatility studies: No data were submitted, but all data are required for the laboratory volatility studies. All data may be required for the field volatility studies based on the results of the laboratory studies.
- 10/ Forestry dissipation studies: No data were submitted; however, no data are required because anilazine does not have a forestry use.
- 11/ Dissipation studies for combination products and tank mixes uses: This data requirement is currently not being implemented for this Standard.

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

§158.130 Environmental Fate
(continued)

- 12/ Long-term field dissipation studies: No data were submitted. Data requirements for long-term field dissipation studies will be predicated upon the results of the terrestrial field dissipation study.
- 13/ Field accumulation studies on rotational crops: No data were submitted. Data requirements for field accumulation studies on rotational crops will be based on the results of confined accumulation studies on rotational crops.
- 14/ Laboratory studies of pesticide accumulation in fish: No data were submitted; however, data may be required. Fish accumulation data will not normally be required in situations where the registrant can offer evidence acceptable to the Agency showing that the active ingredient and/or its principal degradation product(s):
- (i) Will not reach water, or
 - (ii) Will not persist in water (i.e., has a half-life of about 4 days or less), or
 - (iii) Has a relatively low potential for accumulation in fish as indicated by an octanol/water partition coefficient less than about 1000.
- 15/ Required for use on cranberries only.
- 16/ Registrant is required to submit reentry data and recommendations for safe reentry intervals. An interim 24 hour reentry interval is tentatively required.
- 17/ Submitted by Mobay Chemical Company. May be compensable.

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

Data Requirement	Composition	<u>1/</u> Use <u>2/</u> Patterns	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? ^{3/}
<u>\$158.135 Toxicology</u>					
<u>ACUTE TESTING:</u>					
81-1 - Oral LD ₅₀ - Rat	TGAI	A,B,H,I	Yes	00070075	No
81-2 - Dermal LD ₅₀	TGAI	A,B,H,I	Yes	00070075	No
81-3 - Inhalation LC ₅₀ - Rat	TGAI	A,B,H,I	No		Yes ^{4/}
81-7 - Acute Delayed Neurotoxicity - Hen	TGAI	A,B,H	No		No
<u>SUBCHRONIC TESTING:</u>					
82-1 - 90-Day Feeding - Rodent, Non-rodent	TGAI	A,H,I	Partially ^{5/}	00070075	Yes
82-2 - 21-Day Dermal	TGAI	A,B,H,I	Partially ^{6/}	00070075	Yes ^{14/}
82-3 - 90-Day Dermal	TGAI	A,B,H,I	No		Yes ^{7/}
82-4 - 90-Day Inhalation - Rat	TGAI	A,B,H,I	No		Yes
82-5 - 90-Day Neurotoxicity-Hen/Mammal	TGAI	A,B,H,I	No		No

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

Data Requirement	Composition	^{1/} Use ^{2/} Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)?	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? ^{3/}
<u>§158.135 Toxicology</u> (continued)					
<u>CHRONIC TESTING:</u>					
83-1 - Chronic Toxicity - 2 species: Rodent and Non-rodent	TGAI	A,B,H,I	Partially ^{8/}	00070076, ^{13/} 00070077 ^{13/}	Yes
83-2 - Oncogenicity Study - 2 species: Rat and Mouse preferred	TGAI	A,B,H,I	Yes	GS01140001	No
83-3 - Teratogenicity - 2 species	TGAI	A,B,H,I	No ^{9/}		Yes
83-4 - Reproduction, 2-generation	TGAI	A,B,H,I	No ^{10/}		Yes
<u>MUTAGENICITY TESTING</u>					
84-2 - Gene Mutation	TGAI	A,B,H,I	Partially ^{11/}		Yes
84-2 - Chromosomal Aberration	TGAI	A,B,H,I	Partially ^{11/}		Yes
84-2 - Other Mechanisms of Mutagenicity	TGAI	A,B,H,I	Partially ^{11/}		Yes

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

Data Requirement	Composition	<u>1/</u> Use <u>2/</u> Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? <u>3/</u>
<u>§158.135 Toxicology</u> (continued)					
<u>SPECIAL TESTING</u>					
85-1 - General Metabolism	PAI or PAIRA	A,B,H,I	No		Yes <u>12/</u>
85-2 - Domestic Animal Safety	Choice		No		No

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

\$158.135 Toxicology
(continued)

- 1/ Composition: PAI = Pure active ingredient; PAIRA = Pure active ingredient, radiolabelled; Choice = Choice of several test substances determined on a case-by-case basis.
- 2/ The use patterns are coded as follows: A=Terrestrial, Food Crop; B=Terrestrial, Non-Food; C=Aquatic, Food Crop; D=Aquatic, Non-Food; E=Greenhouse, Food Crop; F=Greenhouse, Non-Food; G=Forestry; H=Domestic Outdoor; I=Indoor.
- 3/ Data must be submitted no later than 48 months.
- 4/ Anilazine is not structurally related to a known neurotoxin. Therefore, an acute neurotoxicity study is not required.
- 5/ The available subchronic feeding study in rats was classified as supplementary (see reviews for reasons). Therefore two additional subchronic feeding studies (rat and dog) are needed.
- 6/ The available 21-day dermal study in rabbits was classified as supplementary (see reviews for details). An additional study is required because anilazine has been shown to cause dermal irritation and necropsy indicated degenerative changes in brain, liver, heart and kidneys.
- 7/ A subchronic inhalation study may be required pending the outcome of the acute inhalation study.
- 8/ A 2-year feeding study in rats and a 1 year or longer feeding study in dogs are required.
- 9/ Two teratology studies are required, preferably one in the rat and one in the rabbit.
- 10/ A 2-generation reproduction study is required in the rat.
- 11/ For each test substance a battery of tests is required to assess potential to affect the qualitative or quantitative integrity of human genetic material. The objectives underlying the selection of a battery of tests for mutagenicity assessment are:
 - a. To detect, with sensitive assay methods, the capacity of a test substance to alter genetic material in cells,
 - b. To determine the relevance of these changes to mammals and, when mutagenic potential is demonstrated,
 - c. To incorporate these findings in the risk assessment for heritable effects, oncogenicity, and possible, other health endpoints.The battery must include tests appropriate to address the following three categories of genetic effects:
 - a. gene mutations
 - b. structural chromosomal aberrations
 - c. other mechanisms of mutagenicity (e.g., spindle inhibition, direct DNA damage) as appropriate for the tested chemicalSpecific battery test selection and protocol design should be submitted to the Agency for comment and evaluation. Registrants are encouraged to discuss results of preliminary testing with the Agency.
- 12/ Anilazine is not currently registered for any uses which would result in exposure to domestic animals through direct application for pest control or by consumption of treated foods.
- 13/ Submitted by Mobay Chemical Corporation. May be compensable.
- 14/ Only required for products used as additives to vinyl plastics.

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

Data Requirement	Composition	<u>1/</u> Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? <u>3/</u>
<u>\$158.140 Reentry Protection</u>					
132-1 - Foliar Dissipation	TEP	A,B,H	No		Yes
132-1 - Soil Dissipation	TEP		Not Applicable		
133-3 - Dermal Exposure	TEP	A,B,H	No		Yes
133-4 - Inhalation Exposure	TEP		Not Applicable		

1/ Composition: TEP = Typical end-use product.

2/ The use patterns are coded as follows: A=Terrestrial, Food Crop; B=Terrestrial, Non-Food; C=Aquatic, Food Crop; D=Aquatic, Non-Food; E=Greenhouse, Food Crop; F=Greenhouse, Non-Food; G=Forestry; H=Domestic Outdoor; I=Indoor.

3/ Data must be submitted no later than _____.

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

Data Requirement	Composition	^{1/} Use ^{2/} Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? ^{3/}
<u>\$158.145 Wildlife and Aquatic Organisms</u>					
<u>AVIAN AND MAMMALIAN TESTING</u>					
71-1 - Avian Oral LD ₅₀	TGAI	A,B,	Partial ^{5/}	GS01140002	Yes
71-2 - Avian Dietary LC ₅₀					
a) Upland Game Bird	TGAI	A,B,	Partial ^{5/}	00030114 ^{9/}	Yes
b) Waterfowl	TGAI	A,B,	No		Yes ^{6/}
71-3 - Wild Mammal Toxicity	TGAI	A,B,	No		No ^{8/}
71-4 - Avian Reproduction	TGAI	A,B,	No		Reserved ^{8/}
71-5 - Simulated and Actual Field Testing - Mammals and Birds	TEP	A,B,	No		Reserved ^{8/}
<u>AQUATIC ORGANISM TESTING</u>					
72-1 - Freshwater Fish LC ₅₀					
a) Warmwater	TGAI	A,B,I	Yes	00095691 ^{5/} GS01140003 ^{4/} GS01140028 ^{5/} 05009810 ^{5/} 00095694 ^{5/}	No
b) Coldwater	TGAI	A,B,I	Yes	00095695 ^{5/} GS01140003 ^{4/}	No
72-2 - Acute LC ₅₀ Freshwater Invertebrates	TGAI	A,B,I	Partial	GS01140003 ^{5/}	Yes

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

Data Requirement	Composition	<u>1/</u> Use <u>2/</u> Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? <u>3/</u>
<u>\$158.145 Wildlife and</u> <u>Aquatic Organisms</u> (continued)					
72-3 - Acute LC ₅₀ Estuarine and Marine Organisms	TGAI	A	No		No <u>6/</u>
72-4 - Fish Early Life Stage and Aquatic Invertebrate Life-Cycle					
a) Invertebrate	TGAI	A	No		Yes
b) Fish	TGAI	A	No		Yes
72-5 Fish - Life-Cycle	TGAI	A	No		Reserved <u>7/</u>
72-6 - Aquatic Organism Accumulation	TGAI, PAI OR Degradation Product	A	No		Reserved <u>7/</u>
72-7 - Simulated or Actual Field Testing - Aquatic Organisms	TEP	A	No		Reserved <u>7/</u>

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

\$158.145 Wildlife and Aquatic Organisms
(continued)

- 1/ Composition: TGAI = Technical grade of the active ingredient; PAI = pure active ingredient;
TEP = Typical end-use product;
- 2/ The use patterns are coded as follows: A=Terrestrial, Food Crop; B=Terrestrial, Non-Food Crop; C=Aquatic, Food Crop;
D=Aquatic, Non-Food; E=Greenhouse, Food Crop; F=Greenhouse, Non-Food; G=Forestry; H=Domestic Outdoor; I=Indoor.
- 3/ Data must be submitted no later than 48 months.
- 4/ Study on its own fulfills guideline requirements.
- 5/ Subacute dietary on an upland game bird and waterfowl required. Study submitted must be combined with other studies
to fulfill guideline requirements.
- 6/ Not applicable at this time.
- 7/ Reserved pending receipt and review of fish early-life stage and aquatic invertebrate life cycle tests.
- 8/ Reserved pending receipt and review of environmental fate data.
- 9/ Submitted by PBI Gordon, Inc. May be compensable.

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

Data Requirements	Composition ^{1/}	Use ^{2/} Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? ^{3/}
<u>\$158.150 Plant Protection</u>					
121-1 - <u>TARGET AREA</u> <u>PHYTOTOXICITY</u>	EP		No	-	No <u>4/</u>
<u>NONTARGET AREA PHYTOTOXICITY</u>					
<u>TIER I</u>					
122-1 - Seed Germination/ Seedling Emergence	TGAI		No	-	No <u>4/</u>
122-1 - Vegetative Vigor	TGAI		No	-	No <u>4/</u>
122-2 - Aquatic Plant Growth	TGAI		No	-	No <u>4/</u>
<u>TIER II</u>					
123-1 - Seed Germination/ Seedling Emergence	TGAI		No	-	No <u>4/</u>
123-1 - Vegetative Vigor	TGAI		No	-	No <u>4/</u>
123-2 - Aquatic Plant Growth	TGAI		No	-	No <u>4/</u>
<u>TIER III</u>					
124-1 - Terrestrial Field	TEP		No	-	No <u>4/</u>
124-2 - Aquatic Field	TEP		No	-	No <u>4/</u>

^{1/} Composition: TGAI = Technical grade of the active ingredient; TEP = Typical end-use product.
EP = End-use product;

^{2/} The use patterns are coded as follows: A=Terrestrial, Food Crop; B=Terrestrial, Non-Food Crop; C=Aquatic, Food Crop;
D=Aquatic, Non-Food; E=Greenhouse, Food Crop; F=Greenhouse, Non-Food; G=Forestry; H=Domestic Outdoor; I=Indoor.

^{3/} Data must be submitted no later than _____.

^{4/} These requirements are generally waived unless it is believed there is a phytotoxicity problem.

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

Data Requirement	Composition	^{1/} Use ^{2/} Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? ^{3/}
<u>\$158.155 Nontarget Insect</u>					
<u>NONTARGET INSECT TESTING - POLLINATORS:</u>					
141-1 - Honey bee acute contact LD ₅₀	TGAI	A,B,H	Yes	00036935	No
141-2 - Honey bee - toxicity of residues on foliage	TEP	A,B,H	No		No ^{4/}
141-3 - Wild bees important in alfalfa pollination - toxicity of residues on foliage	TEP	A,B,H	No		No ^{5/}
141-4 - Honey bee subacute feeding study	(Reserved) ^{6/}				
141-5 - Field testing for pollinators	TEP	A,B,H	No		No ^{4/}

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

Data Requirement	Composition ^{1/}	Use ^{2/} Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? ^{3/}
<u>\$158.155 Nontarget Insect</u> (continued)					
<u>NONTARGET INSECT TESTING -</u> <u>AQUATIC INSECTS:</u>					
142-1 - Acute toxicity to aquatic insects	(Reserved)	^{7/}			
142-2 - Aquatic insect life-cycle study	(Reserved)	^{7/}			
142-3 - Simulated or actual field testing for aquatic insects	(Reserved)	^{7/}			
143-1 - <u>NONTARGET INSECT</u> <u>TESTING - PREDATORS</u> thru <u>AND PARASITES</u>	(Reserved)	^{7/}			
143-3					

TABLE A
GENERIC DATA REQUIREMENTS FOR ANILAZINE

§158.155 Nontarget Insect
(continued)

- 1/ Composition: TGAI = Technical grade of the active ingredient; TEP = Typical end-use product.
- 2/ The use patterns are coded as follows: A = Terrestrial, Food Crop; B = Terrestrial, Non-Food; C = Aquatic, Food Crop; D = Aquatic, Non-Food; E = Greenhouse, Food Crop; F = Greenhouse, Non-Food; G = Forestry; H = Domestic Outdoor; I = Indoor.
- 3/ Data must be submitted no later than _____.
- 4/ As first tier (acute contact) test indicated low toxicity to honey bees, further testing is not required.
- 5/ Required only when product is intended for foliar application to seed alfalfa.
- 6/ Requirement reserved pending development of test methodology.
- 7/ Reserved pending decision as to whether data requirement should be established.

TABLE B
PRODUCT SPECIFIC DATA REQUIREMENTS FOR MANUFACTURING-USE PRODUCTS CONTAINING ANILAZINE

Data Requirement	Composition ^{1/}	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? ^{2/}
<u>\$158.120 Product Chemistry</u>				
<u>Product Identity</u>				
61-1 - Identity of Ingredients	MP	Yes	GS01140026,GS01140027	No
61-2 - Statement of Composition	MP	No		Yes
61-3 - Discussion of Formation of Ingredients	MP	No		Yes
<u>Analysis and Certification of Product Ingredients:</u>				
62-1 - Preliminary Analysis	MP	No		Yes ^{3/}
62-2 - Certification of Limits	MP	Partially	GS01140021	Yes ^{4/}
62-3 - Analytical Methods for Enforcement of Limits	MP	Partially	GS01140022	Yes ^{4/}
<u>Physical and Chemical Characteristics</u>				
63-2 - Color	MP	Yes	GS01140024, ^{6/} GS01140025 ^{6/}	Yes ^{5/}
63-3 - Physical State	MP	Yes	GS01140021,GS01140023 GS01140026,GS01140027	No
63-4 - Odor	MP	No		Yes
63-7 - Density, bulk density, or specific gravity	MP	Yes	GS01140024, ^{6/} GS01140025 ^{6/}	Yes ^{5/}

TABLE B
PRODUCT SPECIFIC DATA REQUIREMENTS FOR MANUFACTURING-USE PRODUCTS CONTAINING ANILAZINE

<u>Data Requirement</u>	<u>Composition</u> ^{1/}	<u>Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)</u>	<u>Bibliographic Citation</u>	<u>Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?^{2/}</u>
<u>\$158.120 Product Chemistry</u> (continued)				
63-12 - pH	MP	No		Yes
63-14 - Oxidizing or reducing action	MP	No		Yes
63-15 - Flammability	MP	No		Yes
63-16 - Explodability	MP	No		Yes
63-17 - Storage Stability	MP	No		Yes
63-18 - Viscosity	MP	Not Applicable		
63-19 - Miscibility	MP	Not Applicable		
<u>Other Requirements</u>				
64- 1 - Submittal of Samples	Choice	Not Applicable		

TABLE B
PRODUCT SPECIFIC DATA REQUIREMENTS FOR MANUFACTURING-USE PRODUCTS CONTAINING ANILAZINE

\$158.120 Product Chemistry
(continued)

- 1/ Composition: MP = Manufacturing-use product; Choice = Choice of several test substances determined on a case-by-case basis.
- 2/ Data must be submitted no later than 6 months from the data of this Standard.
- 3/ This information was only submitted on the 92 % technical formulation.
- 4/ Quantitative methods are required to determine impurities present a >0.1 % by weight.
- 5/ This information was only submitted on the 95 % technical formulation.
- 6/ Submitted by Mobay Chemical Corporation. May be compensable.

TABLE B
PRODUCT SPECIFIC DATA REQUIREMENTS FOR MANUFACTURING-USE PRODUCTS CONTAINING ANILAZINE

Data Requirement	Composition ^{1/}	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? ^{2/}
<u>\$158.135 Toxicology</u>				
<u>ACUTE TESTING</u>				
81-1 - Oral LD ₅₀ - Rat	MP	Yes	00070075 ^{3/}	No
81-2 - Dermal LD ₅₀	MP	Yes	00070075 ^{3/}	No
81-3 - Inhalation LC ₅₀ ⁰ - Rat	MP	No		Yes
81-4 - Primary Eye Irritation - Rabbit	MP	No		Yes
81-5 - Primary Dermal Irritation	MP	No		Yes
81-6 - Dermal Sensitization	MP	No		Yes

TABLE B
PRODUCT SPECIFIC DATA REQUIREMENTS FOR MANUFACTURING-USE PRODUCTS CONTAINING ANILAZINE

§158.135 Toxicology
(continued)

- 1/ Composition: MP = Manufacturing-use product.
- 2/ Data must be submitted no later than 6 months.
- 3/ Submitted by Mobay Chemical Corporation. May be compensable.

III. REQUIREMENT FOR SUBMISSION OF PRODUCT-SPECIFIC DATA

Note: This chapter applies only to manufacturing-use products, not end-use products.

A necessary first step in determining which statements must appear on your product's label is the completion and submission to EPA of product-specific data* listed on the form entitled "Product Specific Data Report" (EPA Form 8580-4, Appendix III-1) to fill "gaps" identified by EPA concerning your product. Under the authority of FIFRA Section 3(c)(2)(B), EPA has determined that you must submit these data to EPA in order to register or reregister your product(s). All of these data must be submitted not later than six months after you receive this guidance document.

"Product-Specific Data Requirements for Manufacturing-Use Products" appearing in Table B permit you to determine which product-specific data you must submit. This can be done by examining the entries in the column of those tables entitled "Must Data Be Submitted Under §3(c)(2)(B)."

*/ Product specific data pertains to data that support the formulation which is marketed; it usually includes product chemistry data and acute toxicology data.

IV. SUBMISSION OF REVISED LABELING AND PACKAGING INFORMATION

Note: This chapter applies only to manufacturing-use products, not end-use products.

The Agency requires applicants for registration or reregistration to ensure that each label (1) contains accurate, complete, and sufficient instructions and precautions, reflecting the results of data concerning the product and its ingredients, and (2) incorporates labeling format and terminology which are sufficiently standardized to avoid user confusion.

As part of your application, you will be required to submit draft labeling consistent with: applicable product-specific data; the precautionary statements and use directions; and the regulations concerning classification [40 CFR §162.11(c)], packaging [40 CFR §162.16], and labeling [40 CFR §162.10, Appendix IV-1 and IV-2], as indicated by the following paragraphs of this chapter of the guidance document.

You will be informed later when you must submit the revised labeling set forth in this guidance package.

A. Label Contents

40 CFR §162.10 (Appendix IV-1) requires that certain specific labeling statements must appear at certain locations on the label. This is referred to as format labeling. Specific label items listed below are keyed to Tables D, E, and F (Appendix IV-2).

Item 1. **PRODUCT NAME** - The name, brand, or trademark is required to be located on the front panel, preferably centered in the upper part of the panel. The name of a product will not be accepted if it is false or misleading. See Appendix IV-1. [40 CFR §162.10(b)]

Item 2. **COMPANY NAME AND ADDRESS** - The name and address of the registrant or distributor is required on the label. The name and address should preferably be located at the bottom of the front panel or at the end of the label text. See Appendix IV-1. [40 CFR §162.10(c)]

Item 3. **NET CONTENTS** - A net content statement is required on all labels. The preferred location is the bottom of the front panel immediately above the company name and address, or at the end of the label text. The net contents must be stated in terms of weight, expressed as avoirdupois pounds

and ounces, and stated in terms of the largest suitable unit, i.e., "1 pound 10 ounces" rather than "26 ounces." In addition to the required units specified, net contents may be expressed in metric units. See Appendix IV-1. [40 CFR §162.10(d)]

Item 4. EPA REGISTRATION NUMBER - The registration number assigned to the pesticide product must appear on the label, preceded by the phrase "EPA Registration No.," or "EPA Reg. No." The registration number must be set in type of a size and style similar to other print on that part of the label on which it appears and must run parallel to it. The registration number and the required identifying phrase must not appear in such a manner as to suggest or imply recommendation or endorsement of the product by the Agency. See Appendix IV-1. [40 CFR §162.10(e)]

Item 5. EPA ESTABLISHMENT NUMBER - The EPA establishment number, preceded by the phrase "EPA Est." is the final establishment at which the product was produced, and may appear in any suitable location on the label or immediate container. It must also appear on the wrapper or outside container of the package if the EPA establishment registration number on the immediate container cannot be clearly read through such wrapper or container. See Appendix IV-1. [40 CFR §162.10(f)]

Item 6. INGREDIENT STATEMENT - An ingredient statement is required on the front panel and must contain the name and percentage by weight of each active ingredient and the total percentage by weight of all inert ingredients. The preferred location is immediately below the product name. The ingredient statement must run parallel with, and be clearly distinguished from, other text on the panel. It must not be placed in the body of other text. See Appendix IV-1. [40 CFR 162.10(g)]

Item 6A. POUNDS PER GALLON STATEMENT - For liquid agricultural formulations, the pounds per gallon of active ingredient must be indicated on the label.

Item 7. FRONT LABEL PRECAUTIONARY STATEMENTS - All labels are required to have precautionary statements grouped together on the front panel, preferably within a block outline. The table below shows the minimum type size requirements on various size labels, as set forth in the Regulations.

<u>Size of Label on Front Panel in Square Inches</u>	<u>Signal Word as Re- quired Minimum Type Size All Capitals</u>	<u>"Keep Out of Reach of Children" as Required</u>
5 and under	6 point	6 point
above 5 to 10	10 point	6 point
above 10 to 15	12 point	8 point
above 15 to 30	14 point	10 point
over 30	18 point	12 point

Item 7A. CHILD HAZARD WARNING STATEMENT - All labels are required to have the statement "Keep Out of Reach of Children" located on the front panel above the signal word except where contact with children during distribution or use is unlikely. See Appendix IV-1. [40 CFR §162.10(h)(1)(ii)]

Item 7B. SIGNAL WORD - The signal word (Caution, Warning, or Danger) is required on the front panel immediately below the child hazard warning statement. See Appendix IV-1. [40 CFR §162.10 (h)(1)(i)]

Item 7C. SKULL & CROSSBONES AND WORD "POISON" - On products assigned a toxicity Category I on the basis of oral, inhalation, or dermal toxicity, the word "Poison" shall appear on the label in red on a background of distinctly contrasting color and the skull and crossbones shall appear in immediate proximity to the word poison. See Appendix IV-1. [40 CFR §162.10(h)(1)(i)]

Item 7D. STATEMENT OF PRACTICAL TREATMENT - A statement of practical treatment (first aid or other) shall appear on the label of pesticide products in toxicity Categories I, II, and III. See Appendix IV-1. [40 CFR §162.10(h)(1)(iii)]

Item 7E. REFERRAL STATEMENT - The statement "See Side (or Back) Panel for Additional Precautionary Statements" is required on the front panel for all products, unless all required precautionary statements appear on the front panel. See Appendix IV-1. [40 CFR §162.10(h)(1)(iii)]

Item 8. SIDE/BACK PANEL PRECAUTIONARY LABELING - The precautionary statements as listed below must appear together on the label under the heading "PRECAUTIONARY STATEMENTS." The preferred location is at the top of the side or back panel preceding the directions for use, and it is preferred that these statements be surrounded by a block outline. Each of the three hazard warning statements must be headed by the appropriate hazard title. See Appendix IV-1. [40 CFR §162.10(h)(2)]

Item 8A. HAZARD TO HUMANS AND DOMESTIC ANIMALS - Where a hazard exists to humans or domestic animals, precautionary statements are required indicating the particular hazard, the route(s) of exposure and the precautions taken to avoid accident, injury or damage. See Appendix IV-1. [40 CFR §162.10(h)(2)(i)]

Item 8B. ENVIRONMENTAL HAZARD - Where a hazard exists to non-target organisms excluding humans and domestic animals, precautionary statements are required stating the nature of the hazard and the appropriate precautions to avoid potential accident, injury, or damage. See Appendix IV-1. [40 CFR §162.10(h)(2)(ii)]

Item 8C. PHYSICAL OR CHEMICAL HAZARD

1. Flammability statement. Precautionary statements relating to flammability of a product are required to appear on the label if it meets the criteria in Appendix IV-3. The requirement is based on the results of the flashpoint determinations and flame extension tests required to be submitted for all products. These statements are to be located in the side/back panel precautionary statements section, preceded by the heading "Physical/Chemical Hazards." Note that no signal word is used in conjunction with the flammability statements.
2. Criteria for declaration of non-flammability. The following criteria will be used to determine if a product is non-flammable:
 - a. A "non-flammable gas" is a gas (or mixture of gases) that will not ignite when a lighted match is placed against the open cylinder valve.
 - b. A "non-flammable liquid" is one having a flashpoint greater than 350°F (177°C) as determined by the method specified in 40 CFR §163.61-8(c)(13)(ii) of Subpart D.
 - c. A "non-flammable aerosol" is one which meets the following criteria:
 - i. The flame extension is zero inches, using the method specified in 40 CFR §163.61-8(c)(13)(ii);
 - ii. There is no flash back; and
 - iii. The flashpoint of the non-volatile liquid component is greater than 350°F (177°C), determined by the method specified in 40 CFR §163.61-8(c)(13)(i).

3. Declaration of non-flammability. Products which meet the criteria for non-flammability specified above may bear the notation "non-flammable" or "nonflammable (gas, liquid, etc.)" on the label.

It may appear as a substatement to the ingredients statement, or on a back or side panel, but shall not be highlighted or emphasized (as with an inordinately large type size) in any way that may detract from precaution.

4. Other physical/chemical hazard statements. When chemistry data submitted in accordance with 40 CFR §163.61-10(c) demonstrate hazards of a physical or chemical nature other than flammability, appropriate statements of hazard will be prescribed. Such statements may address hazards of explosivity, oxidizing or reducing capability, or mixing with other substances to produce toxic fumes.

Item 9. MISUSE STATEMENT - The following statement is required on your label: "It is a violation of Federal law to use this product in a manner inconsistent with its labeling." See Appendix IV-1. [40 CFR §162.10(1)(2)(ii)]

Item 10A. STORAGE AND DISPOSAL BLOCK - All labels are required to bear storage and disposal statements. These statements are developed for specific containers, sizes, and chemical content. Make certain that the statement you use pertains specifically to your product. These instructions must be grouped and appear under the heading "Storage and Disposal" in the directions for use. This heading must be set in the same type sizes as required for the child hazard warning. Refer to Appendix IV-5 for the latest specific storage and disposal product label statements.

Item 10B. DIRECTIONS FOR USE - Directions for use must be stated in terms which can be easily read and understood by the average person likely to use or to supervise the use of the pesticide. When followed, directions must be adequate to protect the public from fraud and from personal injury and to prevent unreasonable adverse effects on the environment. See Appendix IV-1. [40 CFR §162.10]

B. Collateral Information

Bulletins, leaflets, circulars, brochures, data sheets, flyers, and other graphic printed matter which is referred to on the label or which is to accompany the product are termed collateral labeling. Such labeling may not bear claims or representations that differ in substance from those accepted in connection with registration of the product. It should be made part of the response to this notice and submitted for review.

V. INSTRUCTIONS FOR SUBMISSION

All applications prepared in response to this Notice should be addressed as follows:

[Product Manager]
Phone No. (703) _____
Registration Division (TS-767)
Office of Pesticide Programs
Environmental Protection Agency
Washington, D.C. 20460

For each product for which continued registration is desired:

1. Within 90 days from receipt of this document, you must submit the "FIFRA Section 3(c)(2)(B) Summary Sheet" EPA Form 8580-1. Refer to Appendix II-2 with appropriate attachments.
2. Within 6 months from receipt of this document registrants must submit:
 - a. Confidential Statement of Formula, EPA Form 8570-4.
 - b. Product Specific Data Report, EPA Form 8580-4 (Appendix III-1).
 - c. Two copies of any required product-specific data.
3. Within the time set forth in Table A, all generic data must be submitted by the affected registrant(s).

Note: If for any reason any required test is delayed or aborted so that meeting the agreed submission time will be delayed, notify the Product Manager listed above.

You will be informed at a later date when you must submit your Application for Amended Pesticide Registration (EPA Form 8570-1) and the revised labeling set forth in this guidance package.

OFFICE OF PESTICIDE PROGRAMS
REGISTRATION STANDARD BIBLIOGRAPHY
Citations Considered to be Part of the Data Base Supporting
Registration Under the Standard

- 00025729 Obrist, J.J.; Thornton, J.S. (1979) Soil Thin-Layer Mobility of Baycor(TM), Baytan(R), Drydene(R) and Peropal(TM). (Unpublished study received Dec. 21, 1979 under 3125-EX-168; prepared in cooperation with Agricultural Consultants, Inc.; submitted by Mobay Chemical Corp., Kansas City, MO.; CDL: 099185-M.)
- 00030114 DeWitt, J.B.; Stickel, W.H.; Springer, P.F. (1962) Wildlife Studies, Patuxent Wildlife Research Center, 1961-62. (Unpublished study received Jan. 2, 1980 under 2217-641; prepared by U.S. Fish and Wildlife Service, Patuxent Wildlife Service, Patuxent Wildlife Research Center, submitted by PBI-Gordon Corp., Kansas City, KS; CDL: 241577-B.)
- 00036935 Atkins, E.L.; Greywood, E.A.; Macdonald, R.L. (1975) Toxicity of Pesticides and Other Agricultural Chemicals to Honey Bees: Laboratory Studies. By Univ. of California, Dept. of Entomology. ? UC, Cooperative Extension. (Leaflet 2287; published study.)
- 00070075 Treon, J.F.; Cleveland, F.P.; Hartman, L.; et al. (1953) The Immediate and Cumulative Toxicity of 2,4-Dichloro-6-(O-chloroanilino)-s-triazine (B0622). (Unpublished study received Feb. 5, 1956 under PP0063; prepared by Univ. of Cincinnati, Dept. of Preventive Medicine and Industrial Health, Kettering Laboratory, submitted by Mobay Chemical Corp., Kansas City, MO; CDL: 090061-A.)
- 00070076 Treon, J.F.; Cleveland, F.P.; Shaffer, M.S.; et al. (1955) The Toxicity of 2,4-Dichloro-6-(O-chloroanilino)-s-triazine When Administered Orally to Dogs in Serial Doses Over Prolonged Periods of Time. (Unpublished study received Feb. 5, 1956 under PP0063; prepared by Univ. of Cincinnati, Dept. of Preventive Medicine and Industrial Health, Kettering Laboratory, submitted by Mobay Chemical Corp., Kansas City, MO; CDL: 090061-B.)
- 00070077 Treon, J.F.; Cleveland, F.P.; et al. (1955) The Physiological Effects of Feeding Rats for Two Years on Diet Containing 2,4-Dichloro-6-(O-chloroanilino)-s-triazine (B-622). (Unpublished study received Feb. 5, 1956 under PP0063; prepared by Univ. of Cincinnati, Dept. of Preventive Medicine and Industrial Health, Kettering Laboratory, submitted by Mobay Chemical Corp., Kansas City, MO; CDL: 090091-O.)

OFFICE OF PESTICIDE PROGRAMS
REGISTRATION STANDARD BIBLIOGRAPHY
Citations Considered to be Part of the Data Base Supporting
Registration Under the Standard

- 00095691 McCann, J.A. (1969) Dyrene 98.3%: Bluegill: Test No. 137. (U.S. Agricultural Research Service, Pesticides Regulation Div., Animal Biology Laboratory; unpublished study; CDL: 108543-A.)
- 00095694 McCann, J.A. (1969) Asgrow Turf Fungicide: Bluegill (Lepomis macrochirus): Test No. 212; Mobay 043135. (U.S. Agricultural Research Service, Pesticides Regulation Div., Animal Biology Laboratory; unpublished study; CDL:130363-A)
- 00095695 McCann, J.A. (1968) Dyrene: Rainbow Trout (Salmo gairdneri): Test No. 101 & 103:L Mobay 043136. (U.S. Agricultural Research Service, Pesticides Regulation Div., Animal Biology Laboratory; unpublished study; CDL:130364-A)
- 05009810 McCann, J.A.; Jasper, R.L. (1972) Vertebral damage to bluegills exposed to acutely toxic levels of pesticides. Transactions of the American Fisheries Society 101(2):317-322.
- GS01140001 National Cancer Institute: Bioassay of Anilazine for Possible Carcinogenicity. CAS No. 101-05-3; NCI Carcinogenesis Technical Report Series No. 104(1972).
- GS01140002 Tucker, R.K. and Crabtree, D.G. (1970) Handbook of Toxicity of Pesticides to Wildlife. Bureau of Sport Fisheries and Wildlife, Denver Wildlife Research Center.
- GS01140003 Johnson, W.W.; Finley, M.T. (1980) Handbook of Acute Toxicity of Chemicals to Fish and Aquatic Invertebrates. USDI Fish and Wildlife Service, Resource Publication 137.
- GS01140004 Meagher, W.R.; Anderson, C.A.; Gonter, C.E.; Smith, S.B.; MacDougall, O. (1959) Colorimetric method for the determination of dyrene residues in plant material. Agric. Food Chem. 7: 558-560. Submitted by Chemagro Corp. as Report No. 4087 under PP0247; RCB Accession No. 113679.
- GS01140005 Fassinger, W.P. (1956) B-622 Residues on Potatoes. Submitted by Chemagro Corp. under PP0063; RCB Accession No. 113156.
- GS01140006 Holstein, S.; Fassinger, W.P. (1957) Dyrene Residues in Potatoes. Submitted by Chemagro Corp. as Report Nos. 1656, 1660, 1664, 1665, 1668 and 1736 under PP0131. RCB Accession No. 113346.
- GS01140007 Holstein, S.; Adelman, D.; Anderson, C.; (1960) Dyrene Residues in Green and Dry Onions. Submitted by Chemagro Corp. as Report Nos. 1669, 2189, 2225, 2684 and 2837 under PP0215. RCB Accession No. 113584.

OFFICE OF PESTICIDE PROGRAMS
REGISTRATION STANDARD BIBLIOGRAPHY
Citations Considered to be Part of the Data Base Supporting
Registration Under the Standard

- GS01140008 Anderson, C.A. (1959) Dyrene Residues in Green Onions. Submitted by Chemagro Corp. as Report No. 3534 under PP0215. RCB Accession No. 113584.
- GS01140009 Anderson, C.A. (1960) Dyrene Residues in Shallots. Submitted by Chemagro Corp. as Report No. 4750 under PP0247. RCB Accession No. 113675.
- GS01140010 Holstein, S.; Anderson, C.A. (1957) Dyrene Residues in Celery. Submitted by Chemagro Corp. as Report Nos. 1657, 1672, 1739 and 1740 under PP0131. RCB Accession No. 113346.
- GS01140011 Adelman, D.P. (1958) Dyrene Residues in Celery. Submitted by Chemagro Corp. as Report Nos. 2154, 2155 and 2156 under PP0196. RCB Accession No. 113524.
- GS01140012 Anderson, C.A. (1961) Dyrene Residues in Cucumbers. Submitted by Chemagro Corp. as Report Nos. 4888, 6722, 6724, 6733, 6737, 6744, 6750 and 6760 under PP0322. RCB Accession No. 113696.
- GS01130013 Anderson, C.A. (1961) Dyrene Residues in Honeydew Melons, Watermelons, Canteloupe and Muskmelon. Submitted by Chemagro Corp. as Report Nos. 6720, 6721, 6726, 6727, 6728, 6730, 6731, 6735, 6745, 6746, 6747, 6748, 6754 and 6755 under PP0322. RCB Accession No. 113969.
- GS01140014 Quattrochi, L.P.; Anderson, C.A. (1961) Dyrene Residues in Pumpkins. Submitted by Chemagro Corp. as Report No. 6743 under PP0322. RCB Accession No. 113969.
- GS01140015 Anderson, C.A.; Blake, G.H.; Quattrochi, L.P. (1961) Dyrene Residues in Squash. Submitted by Chemagro Corp. as Report Nos. 6725, 6732, 6749, 6751, 6752 and 6753 under PP0322. RCB Accession No. 113969.
- GS01140016 Anderson, C.A.; Johnson, F. (1961) Dyrene Residues in Blackberries. Submitted by Chemagro Corp. as Report Nos. 6761 and 6762 under PP0322. RCB Accession No. 113969.
- GS01140017 Anderson, C.A.; Johnson, F.; Haines, R.G. (1962) Dyrene Residues in Raspberries. Submitted by Chemagro Corp. as Report Nos. 4313, 4760, 6734, 6736 and 6759 under PP0322. RCB Accession No. 113969.

OFFICE OF PESTICIDE PROGRAMS
REGISTRATION STANDARD BIBLIOGRAPHY
Citations Considered to be Part of the Data Base Supporting
Registration Under the Standard

- GS01140018 Johnson, F.; Howitt, A.J.; Marucci, P.E.; Vaughn, E.K.; Reed, J.K.; Varney, E.H.; Cough, K. (1962) Dyrene Residues in Blueberries. Submitted by Chemagro Corp. as Report Nos. 8427, 8428, 8429, 8538, 8539, 8670 and 8686 under PP0363. RCB Accession No. 114143.
- GS01140019 Boone, J.M.; Cough, K. (1962) Dyrene Residues in Cranberries. Submitted by Chemagro Corp. as Report Nos. 8368, 8369, 8370, 8371 and 8687 under PP0363. RCB Accession No. 114143.
- GS01140020 Anderson, C.A. (1960) Dyrene Residues in Strawberries. Submitted by Chemagro Corp. as Report Nos. 3977, 4315, 4318, 4319, 4402, 4637, 4690 and 4749 under PP0247. RCB Accession No. 113675.
- GS01140021 Chemagro Corp. (1967) Confidential Statement of Formula for EPA Registration No. 3125-199, dated Sept. 22, 1967. Submitted by Chemagro Corp.
- GS01140022 EPA. (1975) Anilazine EPA-1 (tentative) and EPA-2 (tentative) in Manual of Chemical Methods for Pesticides and Devices. EPA, OTS.
- GS01140023 Chemagro Corp. (1967) Confidential Statement of Formula for EPA Registration No. 3125-198 dated Sept. 22, 1967. Submitted by Chemagro Corp.
- GS01140024 Chemagro Corp. (1960) Physicochemical properties submitted with Publication Bulletin dated February 26, 1960 under PP0247. RCB Accession No. 113675.
- GS01140025 Chemagro Corp. (1959) Physicochemical properties submitted with Publication Bulletin dated April 8, 1959 under PP0215. RCB Accession No. 113584.
- GS01140026 Aceto Chemical Co., Inc. (1975) Confidential Statement of Formula for EPA Registration No. 2749-94, dated May 17, 1975. Submitted by Aceto Chemical Co., Inc.
- GS01140027 Chemagro Corp. (1966) Confidential Statement of Formula for Registration No. 3125-175, dated Jan. 26, 1966. Submitted by Chemagro Corp.
- GS01140028 McCann, J.A. (1968) Dyrene: Bluegill Sunfish (Lepomis macrochirus) Test No. 110 U.S. Agricultural Research Service, Pesticides Regulation Div. Animal Biology Laboratory.

FIFRA SECTION 3(C)(2)(B) SUMMARY SHEET

EPA REGISTRATION NO.

PRODUCT NAME

APPLICANT'S NAME

DATE GUIDANCE DOCUMENT ISSUED

With respect to the requirement to submit "generic" data imposed by the FIFRA section 3(C)(2)(B) notice contained in the referenced Guidance Document, I am responding in the following manner:

☐ 1. I will submit data in a timely manner to satisfy the following requirements. If the test procedures I will use deviate from (or are not specified in) the Registration Guidelines or the Protocols contained in the Reports of Expert Groups to the Chemicals Group, OECD Chemicals Testing Programme, I enclose the protocols that I will use:

☐ 2. I have entered into an agreement with one or more other registrants under FIFRA section 3(C)(2)(B)(ii) to satisfy the following data requirements. The tests, and any required protocols, will be submitted to EPA by:

NAME OF OTHER REGISTRANT

☐ 3. I enclose a completed "Certification of Attempt to Enter Into an Agreement with Other Registrants for Development of Data" with respect to the following data requirements:

☐ 4. I request that you amend my registration by deleting the following uses (this option is not available to applicants for new products):

☐ 5. I request voluntary cancellation of the registration of this product. (This option is not available to applicants for new products.)

REGISTRANT'S AUTHORIZED REPRESENTATIVE

SIGNATURE

DATE

CERTIFICATION OF ATTEMPT TO ENTER
 INTO AN AGREEMENT WITH OTHER REGISTRANTS
 FOR DEVELOPMENT OF DATA

(To qualify, certify ALL four items)

1. I am duly authorized to represent the following firm(s) who are subject to the requirements of a Notice under FIFRA Section 3(c)(2)(B) contained in a Guidance Document to submit data concerning the active ingredient:

GUIDANCE DOCUMENT DATE

ACTIVE INGREDIENT

NAME OF FIRM

EPA COMPANY NUMBER

(This firm or group of firms is referred to below as "my firm".)

2. My firm is willing to develop and submit the data as required by that Notice, if necessary. However, my firm would prefer to enter into an agreement with one or more other registrants to develop jointly, or to share in the cost of developing, the following required items or data:

3. My firm has offered in writing to enter into such an agreement. Copies of the offers are attached. That offer was irrevocable and included an offer to be bound by an arbitration decision under FIFRA Section 3(c)(2)(B)(iii) if final agreement on all terms could not be reached otherwise. This offer was made to the following firm(s) on the following date(s):

NAME OF FIRM

DATE OF OFFER

However, none of those firm(s) accepted my offer.

4. My firm requests that EPA not suspend the registration(s) of my firm's product(s), if any of the firms named in paragraph (3) above have agreed to submit the data listed in paragraph (2) above in accordance with the Notice. I understand EPA will promptly inform me whether my firm must submit data to avoid suspension of its registration(s) under FIFRA Section 3(c)(2)(B). (This statement does not apply to applicants for new products.) I give EPA permission to disclose this statement upon request.

TYPED NAME

SIGNATURE

DATE

PRODUCT SPECIFIC DATA REPORT

EPA Registration No. _____ Guidance Document for _____
 Date _____

Registration Guideline No.	Name of Test	Test not required for my product listed above (check below)	I am complying with data requirements by Citing MRID#	Submit- ting Data (At- tached)	(For EPA Use Only) Accession Numbers Assigned
§158.20 PRODUCT CHEMISTRY					
61-1	Identity of ingredients				
61-2	Statement of composition				
61-3	Discussion of formation of ingredients				
62-1	Preliminary analysis				
62-2	Certification of limits				
62-3	Analytical methods for enforcement limits				
63-2	Color				
63-3	Physical state				
63-4	Odor				
63-5	Melting point				
63-6	Boiling point				
63-7	Density, bulk- density, or specific gravity				
63-8	Solubility				
63-9	Vapor pressure				
63-10	Dissociation constant				
63-11	Octanol/water partition coefficient				
63-12	pH				
63-13	Stability				
63-14	Oxidizing/reducing reaction				
63-15	Flammability				
63-16	Explosibility				
63-17	Storage stability				
63-18	Viscosity				
63-19	Miscibility				
63-20	Corrosion characteristics				
63-21	Dielectric break- down voltage				
§158.135 TOXICOLOGY					
81-1	Acute oral LD-50, rat				
81-2	Acute dermal LD-50				
81-3	Acute inhalation, LC-50 rat				
81-4	Primary eye irritation, rabbit				
81-5	Primary dermal irritation				
81-6	Dermal sensitiza- tion				

end use products, may not consider any data as supporting the application, except the following data:

(1) The data the applicant has submitted to EPA under paragraph (b) of this section;

(2) Other data pertaining to the safety of the product's active ingredients, rather than to the safety of the end use product; and

(3) Existing tolerances, food additive regulations, exemptions, and other clearances issued under the Federal Food, Drug, and Cosmetic Act.

(c) If the applicant knows that any item of data he submitted under this section was generated by (or at the expense of) another person who originally submitted the data to EPA (or its predecessor, USDA) on or after January 1, 1970, to support an application for registration, experimental use permit, or amendment adding a new use to an existing registration, or for reregistration (unless the applicant and the original data submitter have reached written agreement on the amount and the terms of payment of any compensation that may be payable under FIFRA section 3(c)(1)(D)(ii) with regard to approval of the application), the applicant shall submit to EPA a statement that he has furnished to each such identified original data submitter:

(1) A notification of the applicant's intent to apply for registration, including the proposed product name;

(2) An offer to pay the person compensation, with regard to the approval of the application, to the extent required by FIFRA sections 3(c)(1)(i) and 3(c)(2)(D);

(3) An identification of the item(s) of data to which the offer applies;

(4) An offer to commence negotiations to ascertain the amount and terms of compensation to be paid; and

(5) The applicant's name, address, and telephone number.

(f) If the applicant's product contains any active ingredient other than those that are present solely because of the incorporation into the product, during formulation, of one or more other registered pesticide products purchased from another producer, then the applicant shall also comply

ent, and the application shall contain an acknowledgment that for purposes of FIFRA section 3(c)(1)(D) the application relies on (and any resulting registration should be regarded as if it were based on the Administrator's consideration of) the following data:

(1) All data submitted or specifically cited by the applicant in support of the registration; and

(2) Each other item of data in the Agency's files which:

(i) Concerns the properties or effects of any such active ingredient; and

(ii) Is one of the types of data that EPA would require to be submitted for scientific review by EPA if the applicant sought the initial registration under FIFRA Section 3(c)(5) of a product with composition and intended uses identical to those proposed for the applicant's product, under the data requirements in effect on the date EPA approves the applicant's present application.

(Secs. 2, 6, and 26 of FIFRA, as amended, 7 U.S.C. 136 et seq.)

14 FR 27082, May 11, 1970

§ 162.10 Labeling requirements.

(a) *General*—(1) *Contents of the label.* Every pesticide product shall bear a label containing the information specified by the Act and the regulations in this Part. The contents of a label must show clearly and prominently the following:

(i) The name, brand, or trademark under which the product is sold as prescribed in paragraph (b) of this section;

(ii) The name and address of the producer, registrant, or person for whom produced as prescribed in paragraph (c) of this section;

(iii) The net contents as prescribed in paragraph (d) of this section;

(iv) The product registration number as prescribed in paragraph (e) of this section;

(v) The producing establishment number as prescribed in paragraph (f) of this section;

(vi) An ingredient statement as prescribed in paragraph (g) of this section;

of this section;

(viii) The directions for use as prescribed in paragraph (h) of this section; and

(ix) The use classification(s) as prescribed in paragraph (i) of this section.

(2) *Prominence and legibility.* (i) All words, statements, graphic representations, designs or other information required on the labeling by the Act or the regulations in this part must be clearly legible to a person with normal vision, and must be placed with such conspicuousness (as compared with other words, statements, designs, or graphic matter on the labeling) and expressed in such terms as to render it likely to be read and understood by the ordinary individual under customary conditions of purchase and use.

(ii) All required label text must:

(A) Be set in 8-point or larger type;

(B) Appear on a clear contrasting background; and

(C) Not be obscured or crowded.

(3) *Language to be used.* All required label or labeling text shall appear in the English language. However, the Agency may require of the applicant may propose additional text in other languages as is considered necessary to protect the public. When additional text in another language is necessary, all labeling requirements will be applied equally to both the English and other-language versions of the labeling.

(4) *Placement of Label*—(i) *General.* The label shall appear on or be securely attached to the immediate container of the pesticide product. For purposes of this Section, and the misbranding provisions of the Act, "securely attached" shall mean that a label can reasonably be expected to remain affixed during the foreseeable conditions and period of use. If the immediate container is enclosed within a wrapper or outside container through which the label cannot be clearly read, the label must also be securely attached to such outside wrapper or container. If it is a part of the package as customarily distributed or sold.

(ii) *Tank cars and other bulk containers*—(A) *Transportation.* While a pesticide product is in transit, the ap-

of hazardous materials, and specifically those provisions concerning the labeling, marking and placarding of hazardous materials and the vehicles carrying them, define the basic Federal requirements. In addition, when any registered pesticide product is transported in a tank car, tank truck or other mobile or portable bulk container, a copy of the accepted label must be attached to the shipping papers, and left with the consignee at the time of delivery.

(B) *Storage.* When pesticide products are stored in bulk containers, whether mobile or stationary, which remain in the custody of the user, a copy of the label or labeling, including all appropriate directions for use, shall be securely attached to the container in the immediate vicinity of the discharge control valve.

(5) *False or misleading statements.* Pursuant to section 2(q)(1)(A) of the Act, a pesticide or a device declared subject to the Act pursuant to § 162.16, is misbranded if its labeling is false or misleading in any particular including both pesticidal and non-pesticidal claims. Examples of statements or representations in the labeling which constitute misbranding include:

(i) A false or misleading statement concerning the composition of the product;

(ii) A false or misleading statement concerning the effectiveness of the product as a pesticide or device;

(iii) A false or misleading statement about the value of the product for purposes other than as a pesticide or device;

(iv) A false or misleading comparison with other pesticides or devices;

(v) Any statement directly or indirectly implying that the pesticide or device is recommended or endorsed by any agency of the Federal Government;

(vi) The name of a pesticide which contains two or more principal active ingredients if the name suggests one or more but not all such principal active ingredients even though the names of the other ingredients are stated elsewhere in the labeling;

(vii) A true statement used in such a way as to give a false or misleading impression to the purchaser;

(viii) Label disclaimers which negate or detract from labeling statements required under the Act and these regulations;

(ix) Claims as to the safety of the pesticide or its ingredients, including statements such as "safe," "nonpoisonous," "noninjurious," "harmless" or "nontoxic to humans and pets" with or without such a qualifying phrase as "when used as directed"; and

(x) Non-numerical and/or comparative statements on the safety of the product, including but not limited to:

(A) "Contains all natural ingredients";

(B) "Among the least toxic chemicals known";

(C) "Pollution approved";

(8) *Final printed labeling.* (i) Except as provided in paragraph (a)(8)(ii) of this section, final printed labeling must be submitted and accepted prior to registration. However, final printed labeling need not be submitted until draft label texts have been provisionally accepted by the Agency.

(ii) Clearly legible reproductions or photo reductions will be accepted for unusual labels such as those silk-screened directly onto glass or metal containers or large bag or drum labels. Such reproductions must be of microfilm reproduction quality.

(b) *Name, brand, or trademark.* (1) The name, brand, or trademark under which the pesticide product is sold shall appear on the front panel of the label.

(2) No name, brand, or trademark may appear on the label which:

(i) Is false or misleading, or

(ii) Has not been approved by the Administrator through registration or supplemental registration as an additional name pursuant to § 162.8(b)(4).

(c) *Name and address of producer, registrant, or person for whom produced.* An unqualified name and address given on the label shall be considered as the name and address of the producer. If the registrant's name appears on the label and the registrant is not the producer, or if the name of the person for whom the pesticide was produced appears on the label, it must

be qualified by appropriate wording such as "Packed for * * *," "Distributed by * * *," or "Sold by * * *" to show that the name is not that of the producer.

(d) *Net weight or measure of contents.* (1) The net weight or measure of content shall be exclusive of wrappers or other materials and shall be the average content unless explicitly stated as a minimum quantity.

(2) If the pesticide is a liquid, the net content statement shall be in terms of liquid measure at 68° F (20°C) and shall be expressed in conventional American units of fluid ounces, pints, quarts, and gallons.

(3) If the pesticide is solid or semisolid, viscous or pressurized, or is a mixture of liquid and solid, the net content statement shall be in terms of weight expressed as avoirdupois pounds and ounces.

(4) In all cases, net content shall be stated in terms of the largest suitable units, i.e., "1 pound 10 ounces" rather than "24 ounces."

(5) In addition to the required units specified, net content may be expressed in metric units.

(6) Variation above minimum content or around an average is permissible only to the extent that it represents deviation unavoidable in good manufacturing practice. Variation below a stated minimum is not permitted. In no case shall the average content of the packages in a shipment fall below the stated average content.

(e) *Product registration number.* The registration number assigned to the pesticide product at the time of registration shall appear on the label, preceded by the phrase "EPA Registration No.," or the phrase "EPA Reg. No." The registration number shall be set in type of a size and style similar to other print on that part of the label on which it appears and shall run parallel to it. The registration number and the required identifying phrase shall not appear in such a manner as to suggest or imply recommendation or endorsement of the product by the Agency.

(f) *Producing establishments registration number.* The producing establishment registration number preceded by the phrase "EPA Est.," of the

Chapter I—Environmental Protection Agency

final establishment at which the product was produced may appear in any suitable location on the label or immediate container. It must appear on the wrapper or outside container of the package if the EPA establishment registration number on the immediate container cannot be clearly read through such wrapper or container.

(g) *Ingredient statement.* (1) *General.* The label of each pesticide product must bear a statement which contains the name and percentage by weight of each active ingredient, the total percentage by weight of all inert ingredients; and if the pesticide contains arsenic in any form, a statement of the percentages of total and water-soluble arsenic calculated as elemental arsenic. The active ingredients must be designated by the term "active ingredients" and the inert ingredients by the term "inert ingredients," or the singular forms of these terms when appropriate. Both terms shall be in the same type size, be aligned to the same margin and be equally prominent. The statement "inert ingredients, none" is not required for pesticides which contain 100 percent active ingredients. Unless the ingredient statement is a complete analysis of the pesticide, the term "analysis" shall not be used as a heading for the ingredient statement.

(2) *Position of ingredient statement.* (i) The ingredient statement is normally required on the front panel of the label. If there is an outside container or wrapper through which the ingredient statement cannot be clearly read, the ingredient statement must also appear on such outside container or wrapper. If the size or form of the package makes it impracticable to place the ingredient statement on the front panel of the label, permission may be granted for the ingredient statement to appear elsewhere.

(ii) The text of the ingredient statement must run parallel with other text on the panel on which it appears, and must be clearly distinguishable from and must not be placed in the body of other text.

(3) *Names to be used in ingredient statement.* The name used for each ingredient shall be the accepted common name, if there is one, followed by the chemical name. The

common name may be used alone only if it is well known. If no common name has been established, the chemical name alone shall be used. In no case will the use of a trademark or proprietary name be permitted unless such name has been accepted as a common name by the Administrator under the authority of Section 26(c)(4).

(4) *Statements of percentages.* The percentages of ingredients shall be stated in terms of weight-to-weight. The sum of percentages of the active and the inert ingredients shall be 100. Percentages shall not be expressed by a range of values such as "22-26%." If the uses of the pesticide product are expressed as weight of active ingredient per unit area, a statement of the weight of active ingredient per unit volume of the pesticide formulation shall also appear in the ingredient statement.

(5) *Accuracy of stated percentages.* The percentages given shall be as precise as possible reflecting good manufacturing practice. If there may be unavoidable variation between manufacturing batches, the value stated for each active ingredient shall be the lowest percentage which may be present.

(6) *Deterioration.* Pesticides which change in chemical composition significantly must meet the following labeling requirements:

(i) In cases where it is determined that a pesticide formulation changes chemical composition significantly, the product must bear the following statement in a prominent position on the label: "Not for sale or use after [date]."

(ii) The product must meet all label claims up to the expiration time indicated on the label.

(7) *Inert ingredients.* The Administrator may require the name of any inert ingredient(s) to be listed in the ingredient statement if he determines that such ingredient(s) may pose a hazard to man or the environment.

(8) *Warnings and precautionary statements.* Required warnings and precautionary statements concerning the general areas of toxicological hazard including hazard to children, environmental hazard, and physical or chemical hazard for the

those required on the front panel of the labeling and those which may appear elsewhere. Specific requirements concerning content, placement, type size, and prominence are given below.

(1) *Required front panel statements.* With the exception of the child

hazard warning statement, the text required on the front panel of the label is determined by the Toxicity Category of the pesticide. The category is assigned on the basis of the highest hazard shown by any of the indicators in the table below:

Hazard indicators	Toxicity categories			
	I	II	III	IV
Oral (D) ₅₀	Up to and including 50 mg/kg	From 50 thru 500 mg/kg	From 500 thru 5000 mg/kg	Greater than 5000 mg/kg
Inhalation (C) ₅₀	Up to and including 2 mg/liter	From 2 thru 20 mg/liter	From 20 thru 200 mg/liter	Greater than 200 mg/liter
Dermal (D) ₅₀	Up to and including 200 mg/kg	From 200 thru 2000.....	From 2,000 thru 20,000..	Greater than 20,000.
Eye effects.....	Corrosive; corneal opacity not reversible within 7 days.	Corneal opacity reversible within 7 days; irritation persisting for 7 days.	No corneal opacity; irritation reversible within 7 days.	No irritation.
Skin effects.....	Corrosive.....	Severe irritation at 72 hours.	Moderate irritation at 72 hours.	Mild or slight irritation at 72 hours.

(i) *Human hazard signal word—(A) Toxicity Category I.* All pesticide products meeting the criteria of Toxicity Category I shall bear on the front panel the signal word "Danger." In addition if the product was assigned to Toxicity Category I on the basis of its oral, inhalation or dermal toxicity (as distinct from skin and eye local effects) the word "Poison" shall appear in red on a background of distinctly contrasting color and the skull and crossbones shall appear in immediate proximity to the word "poison."

(B) *Toxicity Category II.* All pesticide products meeting the criteria of Toxicity Category II shall bear on the front panel the signal word "Warning."

(C) *Toxicity Category III.* All pesticide products meeting the criteria of Toxicity Category III shall bear on the front panel the signal word "Caution."

(D) *Toxicity Category IV.* All pesticide products meeting the criteria of Toxicity Category IV shall bear on the front panel the signal word "Caution."

(E) *Use of signal words.* Use of any signal word(s) associated with a higher Toxicity Category is not permitted

except when the Agency determines that such labeling is necessary to prevent unreasonable adverse effects on man or the environment. In no case shall more than one human hazard signal word appear on the front panel of a label.

(ii) *Child hazard warning.* Every pesticide product label shall bear on the front panel the statement "keep out of reach of children." Only in cases where the likelihood of contact with children during distribution, marketing, storage or use is demonstrated by the applicant to be extremely remote, or if the nature of the pesticide is such that it is approved for use on infants or small children, may the Administrator waive this requirement.

(iii) *Statement of practical treatment—(A) Toxicity Category I.* A statement of practical treatment (first aid or other) shall appear on the front panel of the label of all pesticides falling into Toxicity Category I on the basis of oral, inhalation or dermal toxicity. The Agency may, however, permit reasonable variations in the placement of the statement of practical treatment in some reference such as "See statement of practical treatment on back panel" appears on the

Chapter I—Environmental Protection Agency

front panel near the word "Poison" and the skull and crossbones.

(B) *Other toxicity categories.* The statement of practical treatment is not required on the front panel except as described in paragraph (h)(1)(iii)(A) of this section. The applicant may, however, include such a front panel statement at his option. Statements of practical treatment are, however, required elsewhere on the label in accord with paragraph (h)(2) of this section if they do not appear on the front panel.

(iv) *Placement and prominence.* All the required front panel warning statements shall be grouped together on the label, and shall appear with sufficient prominence relative to other front panel text and graphic material to make them unlikely to be overlooked under customary conditions of purchase and use. The following table shows the minimum type size requirements for the front panel warning statements on various sizes of labels:

Size of label front panel in square inches	Required signal word, all capitals		"Keep out of reach of children"	
	Points		Points	
6 and under	8		8	
Above 6 to 10	10		10	

Toxicity category	Precautionary statements by toxicity category	
	Oral, inhalation, or dermal toxicity	Skin and eye local effects
I.....	Fatal (poisonous) if swallowed (inhaled or absorbed through skin). Do not breathe vapors (fumes or spray mist). Do not get in eyes, on skin, or on clothing. (Front panel statement of practical treatment required.)	Corrosive. Causes eye and skin damage (or skin irritation). Do not get in eyes, on skin, or on clothing. Wear goggles or face shield and rubber gloves when handling. Wash immediately if contact with skin. (Appropriate first aid statement required.)
II.....	May be fatal if swallowed (inhaled or absorbed through the skin). Do not breathe vapors (fumes or spray mist). Do not get in eyes, on skin, or on clothing. (Appropriate first aid statements required.)	Causes eye (and skin) irritation. Do not get in eyes, on skin, or on clothing. Wash immediately if swallowed (Appropriate first aid statement required.)
III.....	Irritant if swallowed (inhaled or absorbed through the skin). Avoid breathing vapors (fumes or spray mist). Avoid contact with skin (fumes or clothing). (Appropriate first aid statement required.)	Avoid contact with skin, eyes or clothing in case of contact immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.
IV.....	(No precautionary statements required.)	(No precautionary statements required.)

(B) *Environmental hazards.* Where a hazard exists to non target organisms excluding humans and domestic ani-

mals, precautionary statements are required stating the nature of the hazard and the appropriate precau-

Size of label front panel in square inches	Required signal word, all capitals		"Keep out of reach of children"	
	Points		Points	
Above 10 to 15	12		12	
Above 15 to 30	14		14	
Over 30	16		16	

(2) *Other required warnings and precautionary statements.* The warnings and precautionary statements as required below shall appear together on the label under the general heading "Precautionary Statements" and under appropriate subheadings of "Hazard to Humans and Domestic Animals," "Environmental Hazard" and "Physical or Chemical Hazard."

(i) *Hazard to humans and domestic animals.* (A) Where a hazard exists to humans or domestic animals, precautionary statements are required indicating the particular hazard, the route(s) of exposure and the precautions to be taken to avoid accident, injury or damage. The precautionary paragraph shall be immediately preceded by the appropriate hazard signal word.

(B) The following table depicts typical precautionary statements. These statements must be modified or expanded to reflect specific hazards.

ions to avoid potential accident, injury or damage. Examples of the hazard statements and the circumstances under which they are required follow:

(A) If a pesticide intended for outdoor use contains an active ingredient with a mammalian acute oral LD_{50} of 100 or less, the statement "This Pesticide is Toxic to Wildlife" is required.

(B) If a pesticide intended for outdoor use contains an active ingredient with a fish acute LC_{50} of 1 ppm or less, the statement "This Pesticide is Toxic to Fish" is required.

(C) If a pesticide intended for outdoor use contains an active ingredient with an avian acute oral LD_{50} of 100 mg/kg or less, or a subacute dietary LD_{50} of 500 ppm or less, the statement "This Pesticide is Toxic to Wildlife" is required.

(D) If either accident history or field studies demonstrate that use of the pesticide may result in fatality to birds, fish or mammals, the statement "This pesticide is extremely toxic to wildlife (fish)" is required.

(E) For uses involving foliar application to agricultural crops, forests, or shade trees, or for mosquito abatement treatments, pesticides toxic to pollinating insects must bear appropriate label cautions.

(F) For all outdoor uses other than aquatic applications the label must bear the caution "Keep out of lakes, ponds or streams. Do not contaminate water by cleaning of equipment or disposal of wastes."

(G) Physical or chemical hazards. Warning statements on the flammability or explosive characteristics of the pesticide are required as follows:

(A) Pressurized Containers

Flash point at or below 20° F; if pipe to a flashback at any valve opening	Extremely flammable. Contents under pressure. Keep away from fire, sparks, and heated surfaces. Do not puncture or incinerate container. Exposure to temperatures above 130° F may cause bursting.
Flash point above 20° F and not over 60° F or if the flame extension is more than 14 in long at a distance of 4 in from the flame	Flammable. Contents under pressure. Keep away from heat, sparks, and open flame. Do not puncture or incinerate container. Exposure to temperatures above 130° F may cause bursting.
All other pressurized containers	Contents under pressure. Do not use or store near heat or open flame. Do not puncture or incinerate container. Exposure to temperatures above 130° F may cause bursting.

(B) Nonpressurized Containers

Flash point	Flammable limit
At or below 20° F	Extremely flammable. Keep away from fire, sparks, and heated surfaces.
Above 20° F and not over 60° F	Flammable. Keep away from heat and open flame.
Above 60° F and not over 160° F	Do not use or store near heat or open flame.

(1) **Directions for Use**—(i) **General requirements**—(i) **Adequacy and clarity of directions**. Directions for use must be stated in terms which can be easily read and understood by the average person likely to use or to supervise the use of the pesticide. When followed, directions must be adequate to protect the public from fraud and from personal injury and to prevent unreasonable adverse effects on the environment.

(ii) **Placement of directions for use**. Directions may appear on any portion

of the label provided that they are conspicuous enough to be easily read by the user of the pesticide product. Directions for use may appear on printed or graphic matter which accompanies the pesticide provided that:

(A) If required by the Agency, such printed or graphic matter is securely attached to each package of the pesticide, or placed within the outside wrapper or bag;

(B) The label bears a reference to the directions for use in accompanying leaflets or circulars, such as "See directions in the enclosed circular," and

Chapter I—Environmental Protection Agency

(C) The Administrator determines that it is not necessary for such directions to appear on the label.

(ii) **Exceptions to requirement for directions for use**—(A) Detailed directions for use may be omitted from labeling of pesticides which are intended for use only by manufacturers of products other than pesticide products in their regular manufacturing processes, provided that:

(1) The label clearly shows that the product is intended for use only in manufacturing processes and specifies the type(s) of products involved.

(2) Adequate information such as technical data sheets or bulletins, is available to the trade specifying the type of product involved and its proper use in manufacturing processes;

(3) The product will not come into the hands of the general public except after incorporation into finished products; and

(4) The Administrator determines that such directions are not necessary to prevent unreasonable adverse effects on man or the environment.

(B) Detailed directions for use may be omitted from the labeling of pesticide products for which sale is limited to physicians, veterinarians, or druggists, provided that:

(1) The label clearly states that the product is for use only by physicians or veterinarians;

(2) The Administrator determines that such directions are not necessary to prevent unreasonable adverse effects on man or the environment; and

(3) The product is also a drug and regulated under the provisions of the Federal Food, Drug and Cosmetic Act.

(C) Detailed directions for use may be omitted from the labeling of pesticide products which are intended for use only by formulators in preparing pesticides for sale to the public, provided that:

(1) There is information readily available to the formulators on the composition, toxicity, methods of use, applicable restrictions or limitations,

and effectiveness of the product for pesticide purposes;

(2) The label clearly states that the product is intended for use only in manufacturing, formulating, mixing, or repackaging for use as a pesticide and specifies the type(s) of pesticide products involved;

(3) The product as finally manufactured, formulated, mixed, or repackaged is registered; and

(4) The Administrator determines that such directions are not necessary to prevent unreasonable adverse effects on man or the environment.

(2) **Contents of Directions for Use**. The directions for use shall include the following, under the headings "Directions for Use":

(i) The statement of use classification as prescribed in 162.104(i) immediately under the heading "Directions for Use."

(ii) Immediately below the statement of use classification, the statement "It is a violation of Federal law to use this product in a manner inconsistent with its labeling."

(iii) The site(s) of application, as for example the crops, animals, areas, or objects to be treated.

(iv) The target pest(s) associated with each site.

(v) The dosage rate associated with each site and pest.

(vi) The method of application, including instructions for dilution, if required, and type(s) of application apparatus or equipment required.

(vii) The frequency and timing of applications necessary to obtain effective results without causing unreasonable adverse effects on the environment.

(viii) Specific limitations on reentry to areas where the pesticide has been applied, meeting the requirements concerning reentry provided by 40 CFR Part 170.

(ix) Specific directions concerning the storage and disposal of the pesticide and its container, meeting the requirements of 40 CFR Part 165. These instructions shall be grouped and appear under the heading "Storage and Disposal." This heading must be

§ 162.11

set in type of the same minimum sizes as required for the child hazard warning (See Table in § 162.10(h)(1)(iv)).

(2) Any limitations or restrictions on use required to prevent unreasonable adverse effects, such as:

(A) Required intervals between application and harvest of food or feed crops.

(B) Rotational crop restrictions.

(C) Warnings as required against use on certain crops, animals, objects, or in or adjacent to certain areas.

(D) [Reserved]

(E) For restricted use pesticides, a statement that the pesticide may be applied under the direct supervision of a certified applicator who is not physically present at the site of application but nonetheless available to the person applying the pesticide, unless the Agency has determined that the pesticide may only be applied under the direct supervision of a certified applicator who is physically present.

(F) Other pertinent information which the Administrator determines to be necessary for the protection of man and the environment.

(j) *Statement of Use Classification.* By October 22, 1976, all pesticide products must bear on their labels a statement of use classification as described in paragraphs (j)(1) and (2) of this section. Any pesticide product for which some uses are classified for general use and others for restricted use shall be separately labeled according to the labeling standards set forth in this subsection, and shall be marketed as separate products with different registration numbers, one bearing directions only for general use(s) and the other bearing directions for restricted use(s) except that, if a product has both restricted use(s) and general use(s), both of these uses may appear on a product labeled for restricted use. Such products shall be subject to the provisions of § 162.10(j)(2).

(1) *General Use Classification.* Pesticide products bearing directions for use(s) classified general shall be labeled with the exact words "General Classification" immediately below the heading "Directions for Use." And reference to the general classification that suggests or implies that the general utility of the pesticide extends

Title 40—Protection of Environment

beyond those purposes and uses contained in the Directions for Use will be considered a false or misleading statement under the statutory definitions of misbranding.

(2) *Restricted Use Classification.* Pesticide products bearing direction for use(s) classified restricted shall bear statements of restricted use classification on the front panel as described below:

(i) *Front panel statement of restricted use classification.* (A) At the top of the front panel of the label set in type of the same minimum sizes as required for human hazard signal words (see table in § 162.10(h)(1)(iv)), and appearing with sufficient prominence relative to other text and graphic material on the front panel to make it unlikely to be overlooked under customary conditions of purchase and use, the statement "Restricted Use Pesticide" shall appear.

(B) Directly below this statement on the front panel, a summary statement of the terms of restriction imposed as a precondition to registration shall appear. If use is restricted to certified applicators, the following statement is required: "For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification." If, however, other regulatory restrictions are imposed, the Administrator will define the appropriate wording for the terms of restriction by regulation.

(k) *Advertising.* [Reserved]

(40 FR 23282, July 3, 1975; 40 FR 32129, Aug. 1, 1975; 40 FR 26371, Aug. 21, 1975, as amended at 43 FR 5738, Feb. 9, 1978)

LABELING REQUIREMENTS OF THE FIFRA, AS AMENDED (REFER TO THE SAMPLE LABELS FOLLOWING)

ITEM	LABEL ELEMENT	APPLICABILITY OF REQUIREMENT	PLACEMENT ON LABEL		COMMENTS
			REQUIRED	PREFERRED	
1	Product name	All products	Front panel	Center front panel	
2	Company name and address	All products	None	Bottom front panel or end of label text	If registrant is not the producer, must be qualified by "Packed for . . .," "Distributed by. . .," etc.
3	Net contents	All products	None	Bottom front panel or end of label text	May be in metric units in addition to U.S. units
4	EPA Est. No.	All products	None	Front panel	Must be in similar type size and run parallel to other type.
5	EPA Reg. No.	All products	None	Front panel, immediately before or following Reg. No.	May appear on the container instead of the label.
6A	Ingredients statement	All products	Front panel	Immediately following product name	Text must run parallel with other text on the panel.
6B	Pounds/gallon statement	Liquid products where dosage given as lbs. ai/unit area	Front panel	Directly below the main ingredients statement	
7	Front panel precautionary statements	All products	Front panel		All front panel precautionary statements must be grouped together, preferably blocked.
7A	Keep Out of Reach of Children (Child hazard warning)	All products	Front panel	Above signal word	Note type size requirements.
7B	Signal word	All products	Front panel	Immediately below child hazard warning	Note type size requirements.

APPENDIX IV-2 (continued)

ITEM	LABEL ELEMENT	APPLICABILITY OF REQUIREMENT	PLACEMENT ON LABEL		COMMENTS
			REQUIRED	PREFERRED	
7C	Skull & cross-bones and word POISON (in red)	All products which are Category I based on oral, dermal, or inhalation toxicity	Front panel	Both in close proximity to signal word	
7D	Statement of practical treatment	All products in Categories I, II, and III	Category I: Front panel unless referral statement is used. Others: Grouped with side panel precautionary statements.	Front panel for all.	
7E	Referral statement	All products where precautionary labeling appears on other than front panel.	Front panel		
8	Side/back panel precautionary statements	All products	None	Top or side of back panel preceding directions for use	Must be grouped under the headings in 8A, 8B, and 8C; preferably blocked.
8A	Hazards to humans and domestic animals	All products in Categories I, II, and III	None	Same as above	Must be preceded by appropriate signal word.
8B	Environmental hazards	All products	None	Same as above	Environmental hazards include bee caution where applicable.

APPENDIX IV-2 (continued)

ITEM	LABEL ELEMENT	APPLICABILITY OF REQUIREMENT	PLACEMENT ON LABEL		COMMENTS
			REQUIRED	PREFERRED	
8C	Physical or chemical hazards	All pressurized products, others with flash points under 150°F	None	Same as above	
9A	Restricted block	All restricted products	Top center of front panel	Preferably blocked	Includes a statement of the terms of restriction. The words "RESTRICTED USE PESTICIDE" must be same type size as signal word.
9C	Misuse statement	All products	Immediately following statement of classification or ahead of directions for use		
10A	Re-entry statement	All cholinesterase inhibitors	In the directions for use	Immediately after misuse statement	
10C	Storage and disposal block	All products	In the directions for use	Immediately before specific directions for use or at the end of directions for use	Must be set apart and clearly distinguishable from other directions for use.
10D U.S.	Directions for use	All products	None	None	May be in metric as well as U.S. units

PHYSICAL-CHEMICAL HAZARDSCriteriaRequired Label Statement

I. Pressurized Containers

- A. Flashpoint at or below 20°F; or if there is a flashback at any valve opening.

Extremely flammable. Contents under pressure. Keep away from fire, sparks, and heated surfaces. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.

- B. Flashpoint above 20°F and not over 80°F; or if the flame extension is more than 18 inches long at a distance of 6 inches from the valve opening.

Flammable. Contents under pressure. Keep away from heat, sparks, and flame. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.

- C. ALL OTHER PRESSURIZED CONTAINERS

Contents under pressure. Do not use or store near heat or open flame. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.

II. Non-Pressurized Containers

- A. Flashpoint at or below 20°F.

Extremely flammable. Keep away from fire, sparks, and heated surfaces.

- B. Flashpoint above 20°F and over 80°F.

Flammable. Keep away from heat and open flame.

- C. Flashpoint over 80°F and not over 150°F.

Do not use or store near heat and open flame.

- D. Flashpoint above 150°F.

None required.

STORAGE AND DISPOSAL INSTRUCTIONS FOR PESTICIDES

All products are required to bear specific label instructions about storage and disposal. Storage and disposal instructions must be grouped together in the directions for use portion of the label under the heading STORAGE AND DISPOSAL. Products intended solely for domestic use need not include the heading "STORAGE AND DISPOSAL." The STORAGE AND DISPOSAL heading must appear in the minimum type size listed below:

Size of label front panel in square inches	Required type size for the heading STORAGE AND DISPOSAL (all capitals)
10 and under6 point
Above 10 to 158 point
Above 15 to 30	10 point
Over 30.	12 point

Storage and disposal instructions must be set apart and clearly distinguishable from other directions for use. Blocking storage and disposal statements with a solid line is suggested as a means of increasing their prominence.

A. Storage Instructions:

All product labels are required to have appropriate storage instructions. Specific storage instructions are not prescribed. Each registrant must develop his own storage instructions, considering, when applicable, the following factors:

1. Conditions of storage that might alter the composition or usefulness of the pesticide. Examples could be temperature extremes, excessive moisture or humidity, heat, sunlight, friction, or contaminating substances or media.
2. Physical requirements of storage which might adversely affect the container of the product and its ability to continue to function properly. Requirements might include positioning of the container in storage, storage or damage due to stacking, penetration of moisture, and ability to withstand shock or friction.
3. Specifications for handling the pesticide container, including movement of container within the storage area, proper opening and closing procedures (particularly for opened containers), and measures to minimize exposure while opening or closing container.

Appendix IV-5
(continued)

4. Instructions on what to do if the container is damaged in any way, or if the pesticide is leaking or has been spilled, and precautions to minimize exposure if damage occurs.
5. General precautions concerning locked storage, storage in original container only, and separation of pesticides during storage to prevent cross-contamination of other pesticides, fertilizer, food, and feed.
6. General storage instructions for household products should emphasize storage in original container and placement in locked storage areas.

B. Pesticide Disposal Instructions:

The label of all products, except those intended solely for domestic use, must bear explicit instructions about pesticide disposal. The statements listed below contain the exact wording that must appear on the label of these products:

1. The labels of all products, except domestic use, must contain the statement, "Do not contaminate water, food, or feed by storage or disposal."
2. Except those products intended solely for domestic use, the labels of all products that contain active ingredients appearing on the "Acutely Hazardous" Commercial Pesticide Products List (RCRA "E" List) at the end of this appendix or are assigned to Toxicity Category I on the basis of oral or dermal toxicity, skin or eye irritation potential, or Toxicity Category I or II on the basis of acute inhalation toxicity must bear the following pesticide disposal statement:

"Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance."

The labels of all products, except those intended for domestic use, containing active or inert ingredients that appear on the "Toxic" Commercial Pesticide Products List (RCRA "F" List) at the end of this appendix or presently meet any of the criteria in Subpart C, 40 CFR 261 for a hazardous waste must bear the following pesticide disposal statement:

"Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance."

Labels for all other products, except those intended for domestic use, must bear the following pesticide disposal statement:

"Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility."

3. Products intended for domestic use only must bear the following disposal statement: "Securely wrap original container in several layers of newspaper and discard in trash."

C. Container Disposal Instructions

The label of each product must bear container disposal instructions appropriate to the type of container.

1. All products intended for domestic use must bear one of the following container disposal statements:

Container Type	Statement
Non-aerosol products (bottles, cans, jars)	Do not reuse container (bottle, can, jar). Rinse thoroughly before discarding in trash.
Non-aerosol products (bags)	Do not reuse bag. Discard bag in trash.
Aerosol products	Replace cap and discard containers in trash. Do not incinerate or puncture.

2. The labels for all other products must bear container disposal instructions, based on container type, listed below:

Container Type	Statement
Metal containers (non-aerosol)	Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.
Plastic containers	Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.
Glass containers	Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.

Container Type	Statement
Fiber drums with liners	Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by state and local authorities. If drum is contaminated and cannot be reused ¹ , dispose of in the same manner.
Paper and plastic bags	Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.
Compressed gas cylinders	Return empty cylinder for reuse (or similar wording).

¹Manufacturer may replace this phrase with one indicating whether and how fiber drum may be reused.

2. The labels for all other products must bear container disposal instructions, based on container type, listed on the first page of this Appendix.

Appendix IV-5
(continued)

Pesticides that are hazardous wastes under 40 CFR 261.33(e) and (f) when discarded.

"Acutely Hazardous" Commercial Pesticides (RCRA "E" List)
Active Ingredients, (no inerts):

Acrolein
Aldicarb
Aldrin
Allyl alcohol
Aluminum phosphide
4-Aminopyridine
Arsenic acid
*Arsenic pentoxide
Arsenic trioxide
Calcium cyanide
Carbon disulfide
p-Chloroaniline
Cyanides (soluble cyanide salts, not specified elsewhere)
Cyanogen chloride
2-Cyclohexyl-4,6-dinitrophenol
Dieldrin
0,0-Diethyl S-[2-ethylthio)ethyl] phosphorodithioate
(disulfoton, Di-Syston)
0,0-Diethyl 0-pyrazinyl phosphorothioate (Zinophos)
Dimethoate
0,0-Dimethyl 0-p-nitrophenyl phosphorothioate (methyl parathion)
4,6-Dinitro-o-cresol and salts
4,6-Dinitro-o-cyclohexylphenol
2,4 Dinitrophenol
Dinoseb
Endosulfan
Endothall
Endrin
Famphur
Fluoroacetamide
Heptachlor
Hexanethyl tetraphosphate
Hydrocyanic acid
Hydrogen cyanide
Methomyl
alpha-Naphthylthiourea (ANTU)
Nicotine and salts
Octamethylpyrophosphoramidate (OMPA, schradan)
Parathion

"Acutely Hazardous" Commercial Pesticides (RCRA "E" List)
Active Ingredients continued:

Phenylmercuric acetate (PMA)
Phorate
Potassium cyanide
Propargyl alcohol
Sodium azide
Sodium cyanide
Sodium fluoroacetate
Strychnine and salts
0,0,0,0-Tetraethyl dithiopyrophosphate (sulfotepp)
Tetraethyl pyrophosphate
Thallium sulfate
Thiofanox
Toxaphene
Warfarin
Zinc phosphide

There are currently no inert ingredients for commercial pesticides on the "Acutely Hazardous" List (RCRA "E" List).

"Toxic" Commercial Pesticide Products (RCRA "F" List)
Active Ingredients:

Acetone
Acrylonitrile
Amitrole
Benzene
Bis(2-ethylhexyl)phthalate
Cacodylic acid
Carbon tetrachloride
Chloral (hydrate)
Chlordane (technical)
Chlorobenzene
4-Chloro-m-cresol
Chloroform
o-Chlorophenol
4-Chloro-o-toluidine hydrochloride
Creosote
Cresylic acid
Cyclohexane
Decachlorooctahydro-1,3,4-metheno-2H-cyclobuta[c,d]-pentalen-2-one
(kepone, chlordecone)
1,2-Dibromo-3-chloropropane (DBCP)
Dibutyl phthalate
S-3,3-(Dichloroallyl diisopropylthiocarbamate (diallate, Avadex)
o-Dichlorobenzene
p-Dichlorobenzene
Dichlorodifluoromethane (Freon 12®)
3,5-Dichloro-N-(1,1-dimethyl-2-propynyl) benzamide (pronamide, Kerb)
Dichloro diphenyl dichloroethane (DDD)
Dichloro diphenyl trichloroethane (DDT)
Dichlorethyl ether
2,4-Dichlorophenoxyacetic, esters and salts (2,4-D)
1,2-Dichloropropane
1,3-Dichloropropane (Telone)
Dimethyl phthalate
Ethyl acetate
Ethyl 4,4'-dichlorobenzilate (chlorobenzilate)
Ethylene dibromide (EDB)
Ethylene dichloride
Ethylene oxide
Formaldehyde
Furfural
Hexachlorobenzene
Hexachlorocyclopentadiene
Hexachloroethane
Hydrofluoric acid

"Toxic" Commercial Pesticide Products (RCRA "F" List)
Active Ingredients:

Isobutyl alcohol
Lead acetate
Lindane
Maleic hydrazide
Mercury
Methyl alcohol
Methyl bromide
Methyl chloride
2,2'-Methylenebis (3,4,6-trichlorophenol) (hexachlorophene)
Methylene chloride
Methyl ethyl ketone
4-Methyl-2-pentanone (methyl isobutyl ketone)
Naphthalene
Nitrobenzene
p-Nitrophenol
Pentachloroethane
Pentachloronitrobenzene (PCNB)
Pentachlorophenol
Phenol
Phosphorodithioic acid, O,O-diethyl, methyl ester
Propylene dichloride
Pyridine
Resorcinol
Safrole
Selenium disulfide
Silvex
1,2,4,5-Tetrachlorobenzene
1,1,2,2-Tetrachloroethane
Tetrachloroethylene
2,3,4,6-Tetrachlorophenol
Thiram
Toluene
1,1,1-Trichloroethane
Trichloroethylene
Trichloromonofluoromethane (Freon 11®)
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)
Xylene

"Toxic" Commercial Pesticide Products (RCRA "F" List)
Inert Ingredients:

Acetone	Formaldehyde
Acetonitrile	Formic acid
Acetophenone	Isobutyl alcohol
Acrylic acid	Maleic anhydride
Aniline	Methyl alcohol (methanol)
Benzene	Methyl ethyl ketone
Chlorobenzene	Methyl methacrylate
Chloroform	Naphthalene
Cyclohexane	Saccharin and salts
Cyclohexanone	Thiourea
Dichlorodifluoromethane (Freon 12®)	Toluene
Diethyl phthalate	1,1,1-Trichloroethane
Dimethylamine	1,1,2-Trichloroethane
Dimethyl phthalate	Trichlorofluoromethane (Freon 11®)
1,4-Dioxane	Vinyl chloride
Ethylene oxide	Xylene