

## Chapter 5

## INGREDIENT STATEMENT

**I. INTRODUCTION**

This chapter covers the ingredient statement and footnotes sections of the label, which must contain, as provided in 40 CFR 156.10(g), the name and percentage by weight of each active ingredient, the total percentages by weight of all "Other Ingredients," and substatements including, but not limited to: the acid equivalent, elemental equivalent, toxic ingredients, petroleum distillates, sodium nitrite, and corrosivity. If the pesticide contains arsenic, in any form, a statement of the percentages of total and water-soluble arsenic calculated as elemental arsenic. 40CFR 156.10(g)

**II. WHAT IS INCLUDED IN AN INGREDIENT STATEMENT**

A. **FORMAT.** The label reviewer must review the proposed label for a clear and prominent ingredient statement which contains the name and the percentage of each active ingredient, and the total percentage of all "inert" or "other" ingredients, in the pesticide and if arsenic is present, a statement of the percentages of total and water-soluble arsenic calculated as elemental arsenic. 40 CFR 156.10(g). The ingredient statement must be presented clearly, and be neither obscured nor crowded by surrounding text. 40 CFR 156.10(a)(2) and (ii). Unless the ingredient statement is a complete analysis of the pesticide, the term "analysis" must not be used as a heading for the ingredient statement. 40 CFR 156.10(g)

B. **ACTIVE INGREDIENT.** Under 40 CFR 152.3, active ingredient means any substance (or group of structurally similar substances if specified by the Agency) that will prevent, destroy, repel, or mitigate any pest, or that functions as a plant regulator, desiccant, or defoliant, within the meaning of FIFRA section 2(a), except as provided in 40 CFR 174.3.

C. **INERT INGREDIENT.** Under 40 CFR 152.3, inert ingredient means any substance (or group of structurally similar substances if designated by the Agency) other than an active ingredient which is intentionally included in a pesticide product, except as included in 40 CFR 174.3. Some examples of ingredients that may be inert ingredients include: solvents, stabilizers, spreaders or stickers, preservatives, surfactant, defoamers, etc.

1. PR Notice 97-6 sets forth the Agency's policy concerning the use of "inert" on the label ingredients statement. Under this policy, applicants and registrants are permitted to substitute the heading "Other ingredients" for the heading "Inert ingredients."

D. **CONTENTS.** The name and nominal concentration expressed as a percentage by weight of each pure active ingredient must be placed under the ACTIVE INGREDIENT heading and the total percentage by weight of all inert/other ingredients must be placed under the heading INERT INGREDIENT or OTHER INGREDIENT (or plural forms of these terms when appropriate).

E. HEADINGS. The headings "ACTIVE INGREDIENT" and "OTHER [INERT] INGREDIENT" (or plural forms of these terms when appropriate), must be the same type size, aligned to the same margin and equally prominent. PR Notice 97-6 recommends "OTHER INGREDIENT" instead of "INERT INGREDIENT," but either may be used. Additionally formatting requirements are set out at 156.10(g)(2)(ii) which provides that the "text of the ingredient statement 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."

F. PERCENTAGES. The percentages shall be stated in terms of weight-to-weight and the sum of percentages of active and inert ingredients shall be 100. Percentages shall not be expressed by a range of values as 22-25%. 40 CFR 152.10(g)(4). The percentages of active and other ingredients must be aligned by the decimal point.

G. EXPANDED INERT STATEMENTS. Registrants are encouraged to disclose on the label the inert/other ingredients in their pesticide product either by chemical name or functional category with a brief explanatory definition with percentage. For example:

Other Ingredients.....92.8%  
Purified water, glycerin (to help keep from freezing), surfactant (to keep the active ingredient dispersed in water)

H. It is recommended that the percentage of active and other ingredients be aligned by the decimal point.

### III. LOCATION OF INGREDIENT STATEMENT

A. FRONT PANEL. The ingredient statement is normally required to appear on the front panel of the label unless the Agency determines that doing so is impractical. Some examples might be if the pesticide package is extremely small or irregular in shape to the point of making it difficult to place the ingredient statement on the front panel of the label. In such cases, permission may be granted, upon written request (as part of the application), for the ingredient statement to appear on the back or side panel of the label. See 40 CFR 156.10(g)(2)(i).

B. LOCATION ON FRONT PANEL. The preferred location for the ingredient statement is immediately below the product name. (Refer to the sample label formats in chapter 3).

C. OUTSIDE WRAPPERS. If there is an outside container or wrapper through which the ingredient statement cannot be clearly read, the ingredient statement must also appear on the outside container or wrapper. See 40 CFR 156.10(g)(2)(i).

### IV. NAMES TO BE USED IN THE INGREDIENT STATEMENT

A. FIRST STEPS. The label reviewer must review the names for ingredients used on the proposed label and cross-reference the names in the OPPIN database on the LAN. If none of the

names are included in OPPIN, perhaps the chemical name of the active ingredient is new or the registrant used an inappropriate name. If so, check with your PM/team leader for the correct procedures to follow. Look at each section below to determine the correct names to be used in the ingredient statement.

#### B. COMMON NAME

1. The name used for each ingredient shall be the accepted common name, if there is one, followed by the chemical name. 40 CFR 156.10 (g)(3). Through PR Notice 97-5, the Agency clarified what it considers as acceptable common names. EPA will permit the use of common names approved by the American National Standards Institute (ANSI) in the label ingredients statement without the accompanying scientific chemical names, and will permit the use of other common names listed in PR Notice 97-5 without the accompanying scientific chemical name. When a common name only appears on the label, EPA also recommends the inclusion on labels of Chemical Abstracts Service (CAS) numbers to identify ingredients definitively.

2. The label reviewer should check OPPIN to determine the accepted common name. "(ANSI)" or a "C" in the TYPE column will be shown with the accepted common name in the Chemical Name list. An additional source for this information on older chemicals is the EPA publication, *Acceptable Common Names and Chemical Names for the Ingredient Statement on Pesticide Labels*, 4th edition (December 1979).

3. A list containing some of the common/chemical names may also be found in the Pesticide Tolerance Commodity/Chemical Index section in the back of the CFR volume containing the FIFRA regulations 40 CFR 150-189. Because this list only includes names for chemicals with tolerances, it is only a secondary source. Similarly, a list of some common/chemical names can be found in PR Notice 97-5.

#### C. CHEMICAL NAME

1. If the active ingredient has a common name, but not one that is considered "accepted" the full chemical name must be used in conjunction with a common name 40 CFR 156.10(g)(3). For example:

Acephate (0,S-dimethyl acetylphosphoramidothioate)

2. EPA requests that chemical names be consistent with the nomenclature used in the Chemical Abstracts (CA) Chemical Substance Index, published by the American Chemical Society. OPPIN reflects the correct chemical name: the entry found with the "9CI" (i.e., Ninth Collective Index) designation at the end of the name. [*OPPIN tip for label reviews*: hit the Enter key on the chemical name to see the complete chemical name, which may not appear on the line if the name is too long to fit on the line.]

D. CAS (CHEMICAL ABSTRACTS SERVICE) NUMBER. The CAS number for the active ingredient(s) may be used on the label in connection with the ingredient statement. If the CAS number is used, it should appear as a sub-statement (footnote) to the ingredient statement and not in any way detract from the ingredient statement.

E. MICROBIAL NAME. If the active ingredient is a microbial agent, the Agency requests that the microbial agent be identified by genus and species (and if appropriate also by subspecies and/or isolate number). Again, this name should be identical to the name shown in REFS.

F. DESCRIPTIVE NAME. Descriptive names approved by the Agency may be used in the ingredient statement if there is no accepted common name and no distinctive chemical name. Examples are: "Tobacco dust," "Egg solids," or "Dried blood." Approved descriptive names are listed in REFS, and the name shown on the proposed label must be identical to the name found in REFS.

G. TRADEMARK NAME. A trademark or proprietary name may not be used in the ingredient statement unless it has been accepted as a common name by the Administrator under the authority of FIFRA Section 25(c)(6). See 40 CFR 156.10(g)(3).

## V. CRITERIA FOR DETERMINATION OF PESTICIDAL ACTIVITY

### A. IS THE INGREDIENT CONSIDERED TO BE ACTIVE

1. The criteria for determination of an ingredient's active or inert status are located in 40 CFR 153.125 and PR Notice 81-4. Generally speaking an ingredient will be considered an active ingredient if, by itself, and when used as directed at the proposed use dilutions, it has the capacity to function as a pesticide or has the ability to elicit or enhance the effect of another compound whose pesticidal activity is substantially increased due to the interaction of the compounds. Ingredients such as stickers and other adjuvants which function simply to enhance or prolong the activity of an active ingredient by physical action are not generally considered to be active ingredients.

2. A chemical may be an active ingredient in one formulation and an inert ingredient in another. Examples are chemicals used as preservatives of a formulation, plant nutrients, or chemicals with some other non-pesticidal use.

B. RELATED COMPOUNDS (ACTIVE). As described in PR Notice 81-4, EPA recommends that related compounds that are now distinguishable from the intended active ingredient(s) due to newer, more discriminating methods of analysis must be accounted for within the pesticide label ingredients statement. If one or more related compounds is isolated and found to have pesticidal activity to the target pest, EPA requests that it be specifically identified and quantified by percentage under the ACTIVE INGREDIENT heading of the label ingredients statement. For example:

|  |        |
|--|--------|
| ACTIVE INGREDIENTS:  |        |
| 2-Carbomethoxy-1-methylvinyl dimethyl phosphate, $\alpha$ isomer | 20.0%  |
| 2-Carbomethoxy-1-methylvinyl dimethyl phosphate, $\beta$ isomer  | 3.0%   |
| OTHER INGREDIENTS:   | 77.0%  |
| Total  | 100.0% |

C. RELATED COMPOUNDS (INERT). Related compounds whose active/inert status is not determined by the registrant, must be included (without designation as related compounds or by name) under the total percentage of the INERT INGREDIENT or OTHER INGREDIENT heading (see PR Notice 81-4).

D. EQUIVALENTS: Unless declared as an active ingredient, a related compound must not be included in expressing percent acid or metallic equivalents, nor in the declaration of "pounds active ingredient" or "acid (or metallic) equivalents per gallon" under the ingredient statement. (PR Notice 81-4).

**VI. STATEMENT OF CONCENTRATIONS**

A. DEFINITION. The percent nominal concentration specified in the ingredient statement on the label must be stated as the nominal concentration of such ingredient(s), as that term is defined in 40 CFR 158.153(i). The nominal concentration is the amount of an ingredient which is expected to be present in a typical sample of a pesticide product at the time the product is produced, expressed as a percentage by weight. The nominal concentration is the only acceptable method for expressing the percentage of active ingredient in the product. **All pesticide ingredient statements must be expressed as nominal concentration.**

**B. EXPRESSIONS**

1. Reviewers of proposed labels for products subject to deterioration, such as sodium hypochlorite, should note Section IX (Deterioration), below.

2. The percent of the pure active ingredient in a technical grade product is the same as its nominal concentration. This must be indicated in Columns 10 and 13b of the CSF.

3. The nominal concentration in a formulated product is a function of the percentage by weight of the active ingredient in the product (including associated ingredients) and the purity of the source product (its nominal concentration). For example:

If the purity of the active source is 80%, as declared in column 10 of the CSF, and the percentage by weight of the active ingredient in the formulated product is 20% as indicated in column 13(b) of the CSF, the nominal concentration of the product would be 16% (20% x 0.80), consistent with the label claim. The 16% nominal concentration can be indicated between parentheses in the same column below the 20%w/w.

4. If wider limits for active and inert ingredients were justified as per the regulations 40 CFR 158.175 (c) which case the proposed upper and lower certified limits must be indicated on the Confidential Statement of Formula (CSF) and the guarantee of each active ingredient in percent must be indicated on the label. The guarantee is the label claim nominal concentration, a value between the upper and lower certified limits, not equal to either value.

5. The sum of the percentage by weight of the active ingredient and intentionally added inert/other ingredients in a formulated product must be equal 100%. In a technical grade of active ingredient, the total of all nominal concentrations of the pure ingredient plus associated ingredients, including impurities, must be  $\geq 98\%$ .

6. For ingredient statements which reflect the fact that the active ingredient is the only component of the product, the inert ingredients header is not necessary. For example, for a product which is 100% pure chlorine gas, the following ingredient statement is acceptable:

ACTIVE INGREDIENT:  
Chlorine.....100.0%

Assuming that the chlorine gas is only 99% pure, then the following ingredient statement would be required:

ACTIVE INGREDIENT:  
Chlorine.....99.0%  
OTHER INGREDIENTS..... 1.0 %

7. If the proposed label is for a liquid formulation, the label reviewer must check the Directions For Use section. If any of the use directions of the pesticide product are expressed as a certain weight of active ingredient per unit area (such as pounds per acre), a statement of the weight of the active ingredient per unit volume of the pesticide formulation must also appear at the end of the ingredient statement. See 40 CFR 156.10(g)(4). This is very important when calculating the use rates. An example of this would be, "One gallon contains 4 pounds of the active ingredient (chemical)." If dosage rates in the directions for use are expressed as weight of product/unit area, the weight of the product/gallon must be stated.

## VII. SUBSTATEMENTS (FOOTNOTES)

Based on historical practice, EPA requests the following footnotes appear on the label, as applicable:

A. PETROLEUM DISTILLATES. Products containing petroleum distillates, xylene or xylene range aromatic solvents at  $\geq 10\%$  should be indicated on the label immediately below the ingredient statement as a footnote below the term "Inert ingredients" or "Other Ingredients" as follows:

"Contains petroleum distillates, xylene or xylene range aromatic solvents."

**B. INGREDIENTS OF TOXICOLOGICAL CONCERN.** Products containing ingredients of toxicological concern should be indicated on the label immediately below the ingredient statement as a footnote below the term "Inert Ingredients or "Other Ingredients" as follows:

"This product contains the toxic ingredient (name of ingredient), at ...% (indicate the upper certified limit of the toxic component in percent).

**C. SODIUM NITRITE.** Products containing sodium nitrite at >0.1% should indicate in the ingredient statement as a footnote below the term "Inert Ingredients"(or "Other Ingredients") as follows:

"This product contains sodium nitrite."

### **VIII. DETERIORATION**

**A. GENERAL LABELING.** In cases where it is determined that a pesticide formulation changes chemical composition significantly over time, the product must bear the following statement in a prominent position on the label: "Not for sale or use after [date]." (40 CFR 156.10(g)(6)(i)) Note the product must meet all label claims up to the expiration time indicated on the label.

**B. SODIUM HYPOCHLORITE.** For sodium hypochlorite products containing 5.25 - 12.5% active ingredient, the Agency historic practice has been that instead of an expiration date on the label, the following labeling statement is necessary to ensure the product is effective (because of its rapid degradation).

"Degrades with age and exposure to sunlight and heat. Use a test kit and increase dosage as necessary to obtain the required level of available chlorine."

### **IX. SPECIFIC DESIGNATIONS FOR SOME INGREDIENT STATEMENTS**

**A.** Some pesticide ingredients require specific designations on the ingredient statement for proper clarification and identification. Examples of some of these specific designations are shown below:

**1. Microbial Pesticides.** Biopesticides are generally subject to the same labeling provisions as conventional pesticides. They are viewed essentially the same as chemical pesticides with respect to label requirements, except for differences with the ingredient statement.

**a.** Products containing live microorganisms the agency has historically required that the label indicate the equivalent number of viable units (spores, cells, colony forming units, etc.) per unit weight or volume of product.

b. For Bacillus thuringiensis (Bt) products, the Agency has historically required the following labeling information. The active ingredient declaration must be based upon percent by weight of insecticidal toxin(s) present. Strain variety, as well as percent active ingredient declared for each order of insects affected, must appear on the label. (PR Notice 72-6). The use of potency units expressed in terms of International Units (IU) per milligram of product is required unless the percent toxin has been shown to predict field activity. If used, it should appear on the label below the ingredient statement and should be followed by the statement "Potency units should not be used to adjust use rates beyond those specified in the Direction for Use section." For example:

**ACTIVE INGREDIENTS:**

Bacillus thuringiensis subspecies kurstaki

Lepidopteran active toxin 3.0%

Dipteran active toxin(s) 2.0%

OTHER INGREDIENTS: 95.0%

Total 100.0%

Potency: 40,000 International Units per milligram of this product. Potency units should not be used to adjust rates beyond those specified in the Directions for Use section.

Because the reregistration data on percentage of active ingredients have not been reviewed for Bt products, labels for many Bt products still list the percentage a.i. based on potency. For potency based ingredient statements for lepidopteran active Bt products, would indicate 500,000 International Units (IU)/mg product = 100% active ingredient. Percent active ingredient is calculated on the product potency compared to the 100% active ingredient assumption of 500,000 IU/mg. Thus, a 16,000 IU/mg product would be (16,000/mg) x (100%/500,000 IU/mg) = 3.2.%.

(1) Subdivision M (Pesticide Testing Guidelines) *Microbial and Biochemical Pest Control Agents* (July 1989) addresses this topic. Certified limits can be expressed as:

- (a) Microbial Pest Control Agents (MPCA) units/unit weight or volume
- (b) International Units of Potency per unit weight
- (c) Weight percent of product

Items (a) and (b) may be expressed using biological, genetic, biochemical, serological or other appropriate data. For example:

**ACTIVE INGREDIENT:**

*Pseudomonas cepacia* type Wisconsin 3.8% (by wt.)

OTHER INGREDIENTS: 96.2% (by wt.)

Total 100.0% (by wt.)

Contains at least 50 million viable cells/lb (10<sup>5</sup> cells/gram).



|  |                  |
|--|------------------|
| ACTIVE INGREDIENTS:                        |                  |
| <i>Trichoderma harzianum</i> (ATCC 20476)  | 16.6% W/W        |
| <i>Trichoderma polysporum</i> (ATCC 20475) | 16.6% W/W        |
| OTHER INGREDIENTS:                         | <u>66.8%</u> W/W |
| Total                                      | 100.0% W/W       |

Minimum 4.5 million colony forming units (CFU) per pound (454 grams)

2. **Biochemical Pesticides.** The ingredients statement for a product for which the active ingredient is a naturally occurring plant regulator, (such as cytokinins, auxins, or gibberellins) and for which quantitative chemical methods and units are not available, must be stated in an acceptable and generally recognized bioassay unit. For example:

|  |              |
|--|--------------|
| ACTIVE INGREDIENT:                                 |              |
| Cytokinin (equivalent to 200 ppm kinetin activity) | 3.0%         |
| OTHER INGREDIENTS:                                 | <u>97.0%</u> |
| Total  | 100.0%       |

3. **Pheromone Products.** The ingredient statement for pheromone dispenser labels shows the pheromone in mg. per dispenser as a footnote. This must be as reflected in the CSF.

|                    |              |
|--------------------|--------------|
| ACTIVE INGREDIENT: |              |
| Pheromone*         | 1.0%         |
| OTHER INGREDIENTS: | <u>99.0%</u> |
| Total              | 100.0%       |

\*x mg per dispenser

4. **Insect Virus-based Insecticides.** Pesticide products containing an insect virus as the active pesticide ingredient must indicate the number of activity units (polyhedral inclusion bodies for nuclear polyhedrosis viruses or capsules for granulosis viruses) per gram ( $10^6$  PIBS/gm) or percentages (%). For example:

BIOCONTROL-1

Biological Insecticide for the Control of Douglas Fir Tussock Moth

|  |              |
|--|--------------|
| ACTIVE INGREDIENT*:  |              |
| Polyhedral Inclusion Bodies of Douglas Fir<br>Tussock Moth Nuclear Polyhedrosis Virus. . . . . | 13.5%        |
| OTHER INGREDIENTS . . . . .  | <u>86.5%</u> |
| Total. . . . .   | 100.0%       |

\*Contains at least 70 million activity units per gram.

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Often the active ingredient statement will include "... and insect body parts..." whether the baculovirus is propagated in vivo or in vitro. For example:

SPECIFIC-T-1

|   |               |
|---|---------------|
| ACTIVE INGREDIENT:                                  |               |
| Granulosis Virus of Cydia Pomonella (Coddling Moth) |               |
| (at least 5 x 10 <sup>8</sup> GIBS/ml)              | 0.005%        |
| OTHER INGREDIENTS:                                  |               |
| Insect parts/water/inert solids                     | 99.995%       |
| Aureomycin (5.5%)                                   | <u>0.015%</u> |
| Total   | 100.000%      |

**5. Salts, Amine or Ester of Acids.** If the active ingredient is a salt, amine or ester of an acid, the label must declare in a substatement under the ingredient statement the percentage equivalent of the acid. For example:

|  |              |
|--|--------------|
| ACTIVE INGREDIENTS:  |              |
| Isooctyl ester of 2,4-Dichlorophenoxyacetic acid*          | 12.0%        |
| Isooctyl ester of 2-(2,4-Dichlorophenoxy) propionic acid** | 10.0%        |
| OTHER INGREDIENTS:   | <u>78.0%</u> |
| Total  | 100.0%       |
| *2,4-Dichlorophenoxyacetic acid equivalent, 9.5%           |              |
| **2-(2,4-Dichlorophenoxy)propionic acid equivalent, 9%     |              |

**6. Copper and Zinc Salts or Complexes.** Pesticide products for which the active ingredients are copper salts or complexes must declare the chemical name of the copper complex as active ingredient and the equivalent metallic copper declared in a substatement. For example:

|                                  |             |
|----------------------------------|-------------|
| ACTIVE INGREDIENT:               |             |
| Copper naphthenate*              | 93.2%       |
| OTHER INGREDIENTS:               | <u>6.8%</u> |
| Total                            | 100.0%      |
| *Metallic copper equivalent, 22% |             |

This type ingredient statement declaration is also applicable to zinc. For example, zinc naphthenate must be expressed as percent metallic zinc equivalent.

**7. Brominated and/or Chlorinated Compounds.** Certain brominated or chlorinated compounds may require a reference in the ingredient statement to the available chlorine or bromine. For example:

|   |                          |
|---|--------------------------|
| ACTIVE INGREDIENT:                      |                          |
| 1-Bromo-3-chloro-5, 5-dimethylhydantoin | 86.4%                    |
| 1-3dibromo-5, 5-dimethylhydantoin       | 8.6%                     |
| OTHER INGREDIENTS:                      | <u>5.0%</u>              |
| Total                                   | 100.0%                   |
| Provides:                               | 66.8% Available Bromine  |
|   | 25.4% Available Chlorine |

**8. Metal Ion Exchange Resins:** Any metal (e.g., Ag or Cu) used as pesticide, when bound to an ion exchange resin, must be declared on the label as the percent metallic equivalent with a footnote immediately below the ingredient statement specifying the identity and amount of the ion exchange resin which was used.

**9. Sodium Chlorate Products:** Because sodium chlorate is extremely flammable, all pesticide products containing sodium chlorate must include a fire retardant in the formulation. These labels must bear in the vicinity of the ingredient statement, a statement indicating that the product contains a fire retardant. If the proposed label is a sodium chlorate product, check the CSF to verify that the product contains a fire retardant (column 15, Purpose in Formulation).

**10. Arsenic Containing Products:** Pesticide products which contain arsenic in any form must include a substatement of the percentages of total arsenic and water-soluble arsenic calculated as elemental arsenic. See 40 CFR 156.10(g)(1). For example:

"Total arsenic, all in water soluble form, expressed as elemental = xx%"

**11. Products with Petroleum Distillates:** Formulations containing greater than or equal to 10% petroleum distillates, xylene, or xylene range aromatic solvent must reflect the statement "Contains petroleum distillates, xylene, or xylene range aromatic solvent" immediately below the ingredient statement as a footnote to the inert ingredients.

**12. Fertilizer-pesticide Combinations:** Pesticides that are formulated in combination with fertilizers must bear an ingredient statement the same as any other pesticides. The fertilizer composition must be separate from the pesticide ingredient statement and must not detract from or obscure the required pesticide labeling statements.

**13. Complexing Agents:** In products containing an active ingredient bound with other agents as a complex, the active ingredient, must be declared in the ingredient statement with a footnote immediately below the active ingredient statement listing the complex formed. In the case of complexed iodine, for example, the active ingredient is titratable iodine.

|                                  |        |
|----------------------------------|--------|
| ACTIVE INGREDIENT:               |        |
| Iodine*                          | 15.0%  |
| OTHER INGREDIENTS:               | 85.0%  |
| Total                            | 100.0% |
| *from (name of complexing agent) |        |

**X. INERT INGREDIENTS**

**A. SPECIAL LABELING REQUIREMENTS FOR INERTS OF TOXICOLOGICAL CONCERN (LIST 1).** Products containing one or more other/inert ingredients on List 1 (inert ingredients of toxicological concern) have historically been required to include on the label the statement: "This product contains the toxic inert ingredient (name of inert)." See Inert Ingredients in Pesticide Products; Policy Statement OPP-36140;FRL-3190; 40 CFR 156(g)(7). This statement must be placed in close proximity to the ingredient statement in a type size comparable to other front

panel text. (Refer to chapter 13 also) For enforcement purposes applicants have been asked to indicate on the label the "maximum" percent of ingredients of toxicological concern characterized in the product. PR Notice 90-1, issued May 1, 1990, revised and modified previous published lists

of inert ingredients in pesticide products that are of toxicological concern and require priority testing. In general, after the PR Notice was issued EPA did not register any new products containing a List 1 inert. The most current inert list is available on the

Web: <http://www.epa.gov/opprd001/inerts>. The list of seven inert ingredients is as follows:

LIST 1. -- INERTS OF TOXICOLOGICAL CONCERN

| CAS No.    | Chemical Name    |
|------------|------------------|
| 50-00-0    | Formaldehyde     |
| 78-59-1    | Isophorone       |
| 81-88-9    | Rhodamine B      |
| 108-95-2   | Phenol           |
| 117-84-0   | Diocyl phthalate |
| 123-31-9   | 1,4-benzendiol   |
| 25154-52-3 | Nonylphenol      |

B. IDENTIFICATION OF INERT/OTHER INGREDIENTS. Inert ingredients are not required to be identified individually in the ingredient statement except when EPA determines that such inert ingredient may pose a hazard to man or the environment. See 40 CFR 156.10(g)(7). In such a situation, EPA may require that the name of the inert be listed in the ingredient statement. However, if a registrant wants to list a particular inert ingredient in the ingredient statement the registrant must list **all** inert ingredients directly below the ingredient statement.

## XI. ALTERNATE FORMULATIONS

A. EPA may approve a basic formulation and one or more alternate formulations for a single product. An alternate formulation must meet the criteria listed in 40 CFR 152.43(b)(1) through (4). The Agency may require the submission of data to determine whether the criteria have been met. Registrants are encouraged to keep their alternate formulas, if any, up-to-date. The label text of the alternate formulation product must be identical to that of the basic formulation. The Agency will not approve an alternate formulation if the alternate formulation requires a change in the label text.

B. The alternate formulation must have the same certified limits for each active ingredient as the basic formulation. 40 CFR 152.43(b)(1)

C. If the alternate formulation contains an inert ingredient or impurity of toxicological significance, the formulation must have the same upper certified limit for that substance as the basic formulation.

D. The analytical method required under 40 CFR 158.180 must be suitable for use on both the basic formulation and the alternate formulation.

E. Alternate formulas, should be clearly marked "Alternate Formula A," "Alternate B," etc. Further, indication that an alternate formula is replacing "alternate formula x" or "is in addition to "alternate formula y" would reduce confusion.

F. Except for approved dye substitutions, EPA does not accept alternate formulations for rodenticides.

Faint, illegible text at the top of the page, possibly bleed-through from the reverse side.

8100014

12 NOV 1974

Miami Products & Chemical Co.  
520 Lonoke St.  
Dayton, Ohio 45403

Gentlemen:

Subject : SANYGEN  
File Symbol 278-UG  
Your application of October 7, 1974

The product referred to above will be acceptable for registration under the Federal Insecticide, Fungicide, and Rodenticide Act; provided, finished labeling is submitted.

"EPA Reg. No. 278-43" is being reserved for this product. This must appear on the finished label. The "Notice of Registration" will be issued when five (5) copies of the acceptable finished (printed) labeling are submitted. Finished labeling is that which will be attached to or accompany the product. Refer to the attached A-79 Enclosure.

To expedite handling, please return the enclosed duplicate copy of this letter with your finished labeling.

This letter does not constitute registration, and the product may not be lawfully marketed in interstate commerce until it is registered.

Sincerely,

Richard F. Mountfort *RFM*  
Section Head  
Fungicide-Herbicide Branch

2 Enclosures

A-79  
Duplicate ltr.

ABPR:RFM:dj 11-11-74

BEST DOCUMENT AVAILABLE

34

COMPLAINANT EXHIBIT No. 2

0015

h

0016



MANUFACTURERS

Water Treatment Chemicals

Household Chemicals

Specialty Chemicals



R 88992

**The MIAMI PRODUCTS & CHEMICAL CO.**

520 LONOKE STREET

• DAYTON, OHIO, 45403

• 513-253-8927

January 7, 1975

Mr. Richard F. Mountfort  
Section Head  
Fungicide-Herbicide Branch  
U. S. Environmental Protection Agency  
Washington, D. C. 20460

Dear Mr. Mountfort:

We are enclosing copies of our finished labeling  
for our product SANYGEN, EPA Reg 278-43, File  
Symbol 278-UG.

Thank you for your assistance in helping us  
register this label.

Sincerely

THE MIAMI PRODUCTS & CHEMICAL CO.

William H. Focke  
President

WHF:mrh  
Enclosures

35

8

COMPLAINANT EXHIBIT No. 3

0017

CO. 14 DIVISION OF REVENUE DEPARTMENT

RECEIVED

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...

...

ACCEPTED  
278-43  
FEB 10 1965  
UNITED STATES DEPARTMENT OF HEALTH, EDUCATION AND WELFARE  
FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D.C.

**DIRECTIONS:**  
For newly filled pools or pools that are covered up in the spring add the amount of SARTYSEL indicated for your size pool. In areas where the water is hard, containing a high amount of minerals, this would cause hardness of the water. In such cases, add an extra 1.0 gram of SARTYSEL. If you are not sure of the hardness of the water, add an extra 1.0 gram of SARTYSEL. If you are not sure of the hardness of the water, add an extra 1.0 gram of SARTYSEL. If you are not sure of the hardness of the water, add an extra 1.0 gram of SARTYSEL.

# Sartyzen

## Swimming Pool Chlorine

Max Chlorine  
ONE GALLON

**ACTIVE INGREDIENTS:**  
Sodium Hypochlorite . . . . . 11.5%

**INERT INGREDIENTS . . . . . 88.5%**

**CAUTION: KEEP OUT OF REACH OF CHILDREN.  
SEE BACK PANEL FOR FIRST AID STATEMENT  
AND ADDITIONAL PRECAUTIONS**

**HOW TO ESTIMATE GALLON CAPACITY OF YOUR POOL:**  
Measure Length, Width and Average Depth (ft.) in feet.  
Multiply Length x Width x Average Depth.  
Divide the result by 7.48 to get gallons.  
For example: 10 ft. x 10 ft. x 4 ft. = 400 ft.<sup>3</sup>  
400 ft.<sup>3</sup> ÷ 7.48 = 53.5 gallons.

**CAUTION:** Never use in swimming pools. Avoid breathing with skin and eyes. May irritate skin and eyes if used in excess. Do not use in hot tubs or whirlpools. Do not use in hot tubs or whirlpools.

**FIRST AID:** If inhaled, keep person in fresh air. If swallowed, drink water. If on skin, wash with plenty of water. If in eyes, flush with plenty of water. If in eyes, flush with plenty of water.

**HOW TO ESTIMATE GALLON CAPACITY OF YOUR POOL:**  
Measure Length, Width and Average Depth (ft.) in feet.  
Multiply Length x Width x Average Depth.  
Divide the result by 7.48 to get gallons.  
For example: 10 ft. x 10 ft. x 4 ft. = 400 ft.<sup>3</sup>  
400 ft.<sup>3</sup> ÷ 7.48 = 53.5 gallons.

BEST DOCUMENT AVAILABLE

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6.11.11

# Sanlygen

## Swimming Pool Chlorine

**ACTIVE INGREDIENTS:**

Sodium Hypochlorite ..... 10.5%

**INERT INGREDIENTS** ..... 89.5%

**CAUTION: KEEP OUT OF REACH OF CHILDREN.  
SEE BACK PANEL FOR FIRST AID STATEMENT  
AND ADDITIONAL PRECAUTIONS**

**Net Contents  
ONE GALLON**

**EPA Reg. No. 278-43  
EPA Est. No. 278-OH-1**

**CAUTION**

**FIRST AID**

**When Degradation  
Requires This Label  
Will Be**

00021

100-100000-100000

100-100000-100000

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 08-14-2010 BY 60322/UC/STP/STP

100-100000-100000  
100-100000-100000  
100-100000-100000

100-100000-100000

100-100000-100000

Accepted label of 2/10/75

**DIRECTIONS**

For newly filled pools or pools that are started up in the spring add the amount of SANYGEN indicated for your size pool. In areas where the water is hard, containing a high amount of minerals, this could cause staining of the pool. It is recommended to add a chemical sequestrant before adding SANYGEN. If one is not available add the SANYGEN slowly over a period of 2 to 3 days.

Follow the application chart for the daily dosage after the initial dosage is added. Test the water frequently for a chlorine residual of between 0.6 to 1.0 ppm. Add 1/2 of the daily dosage in the morning and 1/2 in mid-afternoon or as needed when indicated by a test set. Hot sunny days and heavy bather loads will require more frequent tests and additions of SANYGEN to maintain proper chlorine residual. Six ounces of SANYGEN will give you 1.0 ppm of chlorine in 5,000 gallons of water. However, chlorine is used up and more will be required to maintain a constant chlorine residual.

Use a test set to determine the PH of your water. Maintain the PH between 7.2 and 7.6. Add mureatic acid or dry acid to lower the PH. Add soda ash to raise the PH.

Superchlorinate every 2 weeks or when algae is present. Use the two weeks dosage chart to determine the amount of SANYGEN to add. Always add after the swimmers are out of the pool in the evening. After superchlorinating, test water prior to swimming to make sure chlorine residual is not excessive, over 1.5 ppm.

**NOTICE: APPLY THIS PRODUCT ONLY AS SPECIFIED ON THIS LABEL.**

Buyer assumes all risk of use of this chemical if used contrary to directions.

Manufactured by **MIAMI PRODUCTS & CHEMICAL CO.** Dayton, Ohio 45403

00023  
SIDE  
ACT  
STER-

CA S

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MEMORANDUM

TO : SAC, [illegible]  
FROM : [illegible]  
SUBJECT: [illegible]

[illegible text]

[illegible text]



Net Co cents  
**ONE GALLON**

00025

**REN.  
INT**

### DOSAGE CHART

| Swimming Pool Capacity in Gallons | Initial Treatment of SANYGEN | DAILY Dosage of SANYGEN | Dosage every 2 weeks of SANYGEN |
|-----------------------------------|------------------------------|-------------------------|---------------------------------|
| 5,000                             | ½ gallon                     | ¼ gallon                | ½ gallon                        |
| 10,000                            | 1 gallon                     | ½ gallon                | 1 gallon                        |
| 20,000                            | 2 gallons                    | 1 gallon                | 2 gallons                       |
| 30,000                            | 3 gallons                    | 1½ gallons              | 3 gallons                       |
| 40,000                            | 4 gallons                    | 2 gallons               | 4 gallons                       |
| 50,000                            | 5 gallons                    | 2½ gallons              | 5 gallons                       |

#### HOW TO ESTIMATE GALLON CAPACITY OF YOUR POOL

Measure Length (L), Width (W), and average Depth (D), in feet.

For Square or Rectangular Pools:

$$L \times W \times D \times 7.5 = \text{Gallons}$$

For Circular or Elliptical Pools:

$$L \times W \times D \times 5.9 = \text{Gallons}$$

**CAUTION:** Harmful if swallowed. Avoid contact with skin and eyes. May cause severe skin and eye irritations. In case of contact with skin and eyes flush with plenty of water. If irritation develops, contact a physician.

**FIRST AID:** External, flood with cold water. If irritation develops, contact a physician.  
Internal, feed raw egg white, milk or cooked cereal followed by olive oil or cooking oil. Contact a physician.

When container is empty rinse thoroughly with water and discard. Degrades with age. Use a test kit and increase dosage as necessary to obtain required chlorine residual.

This product is toxic to fish. Treated effluent should not be discharged where it will drain into lakes, streams, ponds, or public water.

EPA Reg. No. 278-43

EPA Est. No. 278-OH-1

1000 East 1st Street  
New York, N.Y.

CL 100

DEPARTMENT OF  
HEALTH AND HUMAN SERVICES

00026

My mother was a great mother and she was a great person.

I have been thinking about her a lot lately and I miss her so much. She was always there for me and she always knew what to do. I wish she was still here with me.

I hope you are doing well and I hope you are happy. I miss you very much and I hope you are all well.

I love you all and I hope you are all well. I miss you very much and I hope you are all well.

I hope you are all well and I hope you are happy. I miss you very much and I hope you are all well.

I hope you are all well and I hope you are happy. I miss you very much and I hope you are all well.

I hope you are all well and I hope you are happy. I miss you very much and I hope you are all well.

U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF PESTICIDES PROGRAMS  
REGISTRATION DIVISION  
WASHINGTON, D.C. 20460

EPA REGISTRATION NUMBER

278-73

DATE OF ISSUANCE

February 10, 1975

NAME OF PESTICIDE PRODUCT

SANYGREN

**NOTICE OF REGISTRATION**

(Under the Federal Insecticide, Fungicide,  
and Rodenticide Act, as amended)

NAME AND ADDRESS OF REGISTRANT

Miami Products & Chemical Co.,  
520 Lunoke Street  
Dayton, Ohio 45403

NOTE: Changes in labeling or formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of the information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this registration is returned herewith.

Registration is in no way to be construed as an endorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

The following paragraphs are applicable only when checked:

The registration for this product is being issued with the understanding that certain defects in the labeling which are noted below will be corrected as soon as possible. Objection is not raised to the use of the present labeling for a reasonable period of time while fully corrected labeling is being prepared. Three copies of the corrected labeling must be submitted.

AEC:rv

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BEST DOCUMENT AVAILABLE

AEC

A. E. Castillo  
Product Manager (34)  
Disinfectants Branch (41-507)

Attachment is applicable.

SIGNATURE OF APPROVING OFFICIAL

DATE

37 EPA Form 8570-6 (4-73) REPLACE

COMPLAINANT EXHIBIT No. 4

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4 111001

**Summary Report**

| <b>Registration #</b> | <b>Name</b>          | <b>Status</b>            | <b>Restricted Use Product</b> | <b>Company #</b> | <b>Company Name</b>               | <b>Percent Active Ingredient</b> | <b>Active Ingredient</b> |
|-----------------------|----------------------|--------------------------|-------------------------------|------------------|-----------------------------------|----------------------------------|--------------------------|
| 278-43                | SANYGEN LIQUID SHOCK | Registered (03-Feb-1975) | N                             | 278              | MIAMI PRODUCTS & CHEMICAL COMPANY | 10.5                             | Sodium hypochlorite      |

COMPLAINANT EXHIBIT No. 5

MEMORANDUM FOR THE RECORD

| DATE     | INITIALS    | DESCRIPTION | REFERENCE   | STATUS      | REMARKS     |
|----------|-------------|-------------|-------------|-------------|-------------|
| 10/15/54 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |

10000030

10/15/54

278-43

# Sanygen

**super shock**  
(liquid, *disinfectant*)

|  |       |
|--|-------|
| ACTIVE INGREDIENT: Sodium Hypochlorite ..... | 10.5% |
| INERT INGREDIENTS: .....                     | 89.5% |
|  | 100%  |

**DANGER:**  
Keep Out of Reach of Children.  
See Side Panel for First Aid Statement and Additional Precautions.  
Keep Bottle Upright To Prevent Spillage.

**ONE GALLON**

EPA REG. NO. 278-43 EPA EST. NO. 278-24-1

**DIRECTIONS for use:** It is a violation of Federal law to use this product in a manner inconsistent with the following:

**NOTE:** This product design has with age. Use a chlorine test kit and increase dosage, as necessary, to maintain the required level of available chlorine.

**STORAGE and disposal:** Store this product in a cool, dry area, away from direct sunlight and heat to avoid deterioration. In case of spill, absorb as with large quantities of water. Product or residues that cannot be removed should be placed in a sealed container for disposal in a sanitary sewer. Do not reuse container but place in trash collection. Do not tamper with food or feed by storage, disposal or cleaning equipment.

**SWIMMING pool water disinfection:** For a new pool or spring start-up, superchlorinate with 3 gallons of 10% SANYGEN SUPER SHOCK for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Adjust and maintain pool water pH to between 7.2 to 7.6. Adjust and maintain the alkalinity of the pool to between 80 to 100 ppm.

To maintain the pool, add manually or by a feeder device 11 oz. of SANYGEN SUPER SHOCK for each 10,000 gallons of water to yield an available chlorine residual between 0.6 to 1.0 ppm by weight. Saturated powder should maintain a residual of 1.0 to 1.5 ppm available chlorine. Test the pH, available chlorine residual and alkalinity of the water frequently with appropriate test kits. Frequency of water treatment will depend upon temperature and number of swimmers.

For 7 days or as necessary superchlorinate the pool with 3 gallons to 4 gallons of SANYGEN SUPER SHOCK for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Do not reenter pool until the chlorine residual is between 1.0 and 1.5 ppm.

When you finish swimming pool season or when water is to be drained from the pool, chlorine must be allowed to dissipate in the water. A feeder should be discharged. Do not chlorinate the pool within 24 hours prior to use.

**WATER TREATING PROCEDURE:** While water is still clear & clean, apply 3 oz. of SANYGEN SUPER SHOCK per 1000 gallons, while there is running, to obtain a 3 ppm available chlorine residual, as determined by a test kit. Do not use pool pump or filter until filter and heater components are winterized by following manufacturer's instructions.

**SPAS, HOT TUBS, IMMERSION TANKS, ETC.: SPAS/HOT TUBS:** Apply 6 oz. of SANYGEN SUPER SHOCK per 1000 gallons of water in tubs and hot tubs. A free available chlorine concentration of 5 ppm.

10-2001

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278-49

WATER



as determined by a suitable chlorine test kit. Adjust and maintain pool water pH to between 7.2 and 7.8. Some oils, lotions, lotions, cleaners, etc. may cause foaming or cloudy water as well as reduce the efficiency of the product.

To maintain the water, apply 6 oz of SANYGEN SUPER SHOCK per 1000 gallons of water over the surface to maintain a chlorine concentration of 5 ppm.

After each use, shock treat with 9 oz of SANYGEN SUPER SHOCK per 500 gallons of water to control odor and algae.

During extended periods of disuse, add 4 oz of SANYGEN SUPER SHOCK daily per 1000 gallons of water to maintain a 3 ppm chlorine concentration.



**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER:** Corrosive. May cause severe skin and eye irritation or chemical burns to exposed skin. Causes eye damage. Wear face shield or goggles and rubber gloves when handling this product. Do not return until strong odors have dissipated.

**ENVIRONMENTAL HAZARDS:** This product is toxic to fish. Do not discharge into lakes, streams, rivers, or public waterways unless in accordance with a NPDES permit. For guidance, contact the regional office of the U.S. Environmental Protection Agency.

**PHYSICAL OR CHEMICAL HAZARDS**

**STRONG OXIDIZING AGENT:** Mix only with water according to label directions. Mixing this product with chemicals (e.g. amines, acids, detergents, etc.) or organic matter (e.g. urine, feces, etc.) will release chlorine gas, which is irritating to eyes, lungs and mucous membranes.

**STATEMENT OF PRACTICAL TREATMENT (FIRST AID):**

**IF CONTACT WITH EYES OCCURS,** flush with water for at least 15 minutes. Get prompt medical attention.

**IF CONTACT WITH SKIN OCCURS,** wash with plenty of soap and water.

**IF SWALLOWED,** drink large quantities of milk or gelatin solution, if these are not available, drink large quantities of water. DO NOT give vinegar or other acids. DO NOT induce vomiting. Get prompt medical attention.

**NOTICE: APPLY THIS PRODUCT ONLY AS SPECIFIED ON THIS LABEL**  
Buyer assumes all responsibility of this chemical if used contrary to directions.

**MANUFACTURED BY MIAMI PRODUCTS & CHEMICAL CO. DAYTON, OHIO 45403**

ACCEPTED

27842

The following information was obtained from the files of the FBI, New York Office, dated 1/15/64, and is being furnished to you for your information. It is noted that the information was obtained from the files of the FBI, New York Office, and is being furnished to you for your information.

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[REDACTED]

# Sanygen

## liquid shock

(liquid disinfectant)

**KEEP OUT OF REACH OF CHILDREN  
DANGER**

To maintain the pool, add manually or by feeder device 12 oz. of this product for each 10,000 gallons of water to yield an available chlorine residual between 0.8 to 1.0 ppm by weight. Stabilized pools should maintain a residual of 1.0 to 1.5 ppm available chlorine. Test the pH, available chlorine residual and alkalinity of the water frequently with appropriate test kits. Frequency of water treatment will depend upon temperature and number of swimmers.

Every 7 days, or as necessary, superchlorinate the pool with 1/2 gallon to 1 gallon of product for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Do not reenter pool until the chlorine residual is between 1.0 to 4.0 ppm.

At the end of the swimming pool season or when water is to be drained from the pool, chlorine must be allowed to dissipate from treated pool water before discharge. Do not chlorinate the pool within 24 hours prior to discharge.

**WINTERIZING POOLS:** When water is still clear & clean, apply 4 oz. of product per 1,000 gallons, while filter is running. To obtain a 3 ppm available chlorine residual, as determined by a suitable test kit. Cover pool, prepare heater, filter and heater components for winter by following manufacturers' instructions.

#### SPAS & HOT TUBS

**SPAS/HOT TUBS** — Apply 6 oz. of product per 1,000 gallons of water to obtain a free available chlorine concentration of 5 ppm, as determined by a suitable chlorine test kit. Adjust and maintain pool water pH to between 7.2 and 7.8. Some oils, lotions, fragrances, cleaners, etc. may cause foaming or cloudy water as well as reduce the efficiency of the product.

To maintain the water, apply 6 oz. of product per 1,000 gallons of water over the surface to maintain a chlorine concentration of 5 ppm.

After each use, shock treat with 10 oz. of this product per 500 gallons of water to control odor and algae. Do not re-enter spa or hot tub until the chlorine level is below 5 ppm.

During extended periods of disuse, add 4 oz. of product daily per 500 gallons of water to maintain a 3 ppm chlorine concentration.

#### NOTICE: APPLY THIS PRODUCT ONLY AS SPECIFIED ON THIS LABEL.

Buyer assumes all risks of use of this chemical if used contrary to direction.

EPA REG. NO. 278-43  
EPA EST. NO. 278-OH-1  
MANUFACTURED BY MIAMI PRODUCTS & CHEMICAL CO., DAYTON, OHIO 45403

**FIRST AID STATEMENT**

**If In Eyes:**  
- Open eyes and close slowly and gently with water 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes. Then continue rinsing eyes.  
- Call a poison control center or doctor for treatment advice.  
- Get into clean clothing.  
- Remove skin immediately with plenty of water for 15-20 minutes.  
- Call a poison control center or doctor for treatment advice.

**If In Skin:**  
- Remove contaminated clothing.  
- Have the product container or label with you when calling a poison control center, a doctor, or going for treatment.  
- Note To Physician: Probably increased damage may occur if the use of Sanygen is continued.

**If Swallowed:**  
- Call a poison control center or doctor immediately for treatment advice.  
- Have person sip a glass of water if able to swallow.  
- Do not induce vomiting unless told to do so by poison control center or doctor.  
- Do not give anything by mouth to an unconscious person.  
- Have person lie on their side.  
- If person is not breathing, call 911 or an ambulance. Then perform artificial respiration, preferably mouth-to-mouth if possible.  
- Call a poison control center or doctor for further treatment advice.

See side panel for additional Precautionary Statements

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STORE CONTAINER IN  
AN UPRIGHT POSITION



**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER:** Corrosive, may cause severe skin and eye irritation or chemical burns to broken skin. Causes eye damage. Wear face shield or goggles and rubber gloves when handling this product. Wash after handling. Avoid breathing vapors. Vaccinate poorly ventilated areas as soon as possible. Do not return until strong odors have dissipated.

**ENVIRONMENTAL HAZARDS:** This pesticide is toxic to fish and aquatic organisms.

**PHYSICAL OR CHEMICAL HAZARDS:**

**STRONG OXIDIZING AGENTS:** Mix only with water according to label directions. Mixing this product with chemicals (e.g., ammonia, acids, detergents, etc.) or organic matter (e.g., urine, feces, etc.) will release chlorine gas which is irritating to eyes, lungs and mucous membranes.

**DIRECTIONS FOR USE:** It is a violation of federal law to use this product in a manner inconsistent with its labeling.

**NOTE:** This product degrades with age. Use a chlorine test kit and increase dosage, as necessary, to obtain the required level of available chlorine.

**STORAGE AND DISPOSAL:** Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large quantities of water. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. Do not reuse container but place in trash collection. Do not contaminate food or feed by storage, disposal or cleaning of equipment.

**SWIMMING POOL WATER DISINFECTION:** For a new pool or spring start-up, superchlorinate with 1/2 gallon to 1 gallon of product for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Adjust and maintain pool water pH to between 7.2 and 7.8. Adjust and maintain the alkalinity of the pool to between 50 and 100 ppm.



00036

**Application for Registration of Pesticide-Producing and Device-Producing Establishments**  
Section 7, Federal Insecticide, Fungicide, and Rodenticide Act, (7 U.S.C. 136e)

Note: Read all instructions before completing.

|   |                                  |                              |   |  |
|---|----------------------------------|------------------------------|---|--|
| 1. Company Name<br><b>MIAMI PRODUCTS &amp; CHEMICAL CO.</b>                     |                                  |                              | 11. EPA Company Number<br><b>278-OH</b>   |  |
| 2. Company Name (if different from 1)   |                                  |                              | 12. Company D & B No.<br><b>00-427-9378</b>   |  |
| <b>Company Headquarters Location</b>  |                                  |                              |   |  |
| 3. Street Address<br><b>520 LONOKE ST.</b>                                      |                                  |                              | 13. Enter Appropriate Ownership code<br><input checked="" type="checkbox"/> 4<br>1 - Individual<br>2 - Partnership<br>3 - Cooperative Association<br>4 - Corporation<br>5 - Other |  |
| 4. City<br><b>DAYTON</b>  | 5. State or Country<br><b>OH</b> | 6. Zip Code<br><b>45403</b>  |   |  |
| <b>Company Headquarters Mailing Address (If identical to above, write SAME)</b> |                                  |                              | 14. State or Country of Incorporation<br><b>OH</b>  |  |
| 7. Street or PO Box Address<br><b>P.O. BOX 486</b>                              |                                  |                              | 15. Date of Incorporation (Month, Day, Year)<br><b>JANUARY 16, 1932</b>   |  |
| 8. City<br><b>DAYTON</b>  | 9. State or Country<br><b>OH</b> | 10. Zip Code<br><b>45401</b> |   |  |

**NAME, SITE LOCATION, and MAILING ADDRESS of EACH NEW PRODUCING ESTABLISHMENT**

|  |                             |  |                              |  |
|--|-----------------------------|--|------------------------------|--|
| 16. Establishment Name<br><b>MIAMI PRODUCTS &amp; CHEMICAL CO.</b>   |                             | EPA Est. No. (EPA use only)<br><b>278.0--002</b> |                              |  |
| 17. Establishment Site Address<br><b>1260 SCHWERMAN DR.</b>  | 18. City<br><b>FAIRBORN</b> | 19. State or Country<br><b>OH</b>                | 20. Zip Code<br><b>45324</b> |  |
| 21. Establishment Mailing Address<br><b>P.O. BOX 486</b>   | 22. City<br><b>DAYTON</b>   | 23. State or Country<br><b>OH</b>                | 24. Zip Code<br><b>45401</b> |  |
| 25. NAICS Code.<br><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |                             | 26. D & B No.                                    |                              |  |

|  |          |   |              |  |
|--|----------|---|--------------|--|
| 16. Establishment Name   |          | EPA Est. No. (EPA use only)<br><b>001</b> |              |  |
| 17. Establishment Site Address<br><b>520 LONOKE</b>  | 18. City | 19. State or Country                      | 20. Zip Code |  |
| 21. Establishment Mailing Address  | 22. City | 23. State or Country                      | 24. Zip Code |  |
| 25. NAICS Code.<br><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          | 26. D & B No.                             |              |  |

|  |          |                             |              |  |
|--|----------|-----------------------------|--------------|--|
| 16. Establishment Name   |          | EPA Est. No. (EPA use only) |              |  |
| 17. Establishment Site Address   | 18. City | 19. State or Country        | 20. Zip Code |  |
| 21. Establishment Mailing Address  | 22. City | 23. State or Country        | 24. Zip Code |  |
| 25. NAICS Code.<br><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          | 26. D & B No.               |              |  |

|     |  |
|-----|--|
| EPA |  |
| USE |  |

|  |  |                    |                                |
|--|--|--------------------|--------------------------------|
| 27. NAME of Company Officer<br><b>ROGER K. KAYSER</b>      | 28. Telephone Number<br><b>937-253-8927</b>                | EPA<br>USE<br>ONLY | Received date<br>Postmark date |
| 29. E-mail Address (Optional)                              | 30. FAX Number (Optional)<br><b>937-253-1559</b>           |                    | Signature                      |
| 31. TITLE of Company Officer<br><b>PRESIDENT</b>           | 32. Date Signed (Month, Day, Year)<br><b>FEB. 23, 2005</b> |                    | Region                         |
| 33. SIGNATURE of Company Officer<br><i>Roger K. Kayser</i> |  |                    | Review Date                    |

| NO. | NAME | AGE | SEX | RELATIONSHIP | EDUCATION | RELIGION | STATUS | REMARKS |
|-----|------|-----|-----|--------------|-----------|----------|--------|---------|
| 1   | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 2   | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 3   | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 4   | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 5   | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 6   | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 7   | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 8   | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 9   | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 10  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 11  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 12  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 13  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 14  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 15  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 16  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 17  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 18  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 19  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 20  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 21  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 22  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 23  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 24  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 25  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 26  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 27  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 28  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 29  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 30  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 31  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 32  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 33  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 34  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 35  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 36  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 37  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 38  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 39  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 40  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 41  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 42  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 43  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 44  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 45  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 46  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 47  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 48  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 49  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |
| 50  | ...  | ... | ... | ...          | ...       | ...      | ...    | ...     |