

79766-5

03/10/2011

1/23

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

MAR 10 2011

Vickie A. Forster  
Agent for Falcon Lab, LLC  
230 Steeplechase Circle  
Wilmington, DE 19808

Subject: New Primary Brand Name: FL-AN5400P  
EPA Registration No. 79766-5  
Application for Notification Dated: 2/14/2011

Dear Ms. Forster:

The Biopesticides and Pollution Prevention Division is in receipt of your application for Notification under PRN 98-10 dated above. A preliminary screen of this request has been conducted for its applicability under PRN 98-10 and it has been determined that the action(s) requested falls within the scope of PRN 98-10. Our records have been duly noted, and the label submitted with this application has been stamped "Notification, received and reviewed" and will be placed accordingly in our records.

Questions concerning this action should be directed to John Fournier at (703) 308-0169 or email at [fournier.john@epa.gov](mailto:fournier.john@epa.gov).

Sincerely,

*Linda Hollis*

Linda Hollis, Chief  
Biochemical Pesticides Branch  
Biopesticides and Pollution Prevention Division (7511P)

CONCURRENCES

|         |           |  |  |  |  |  |  |  |
|---------|-----------|--|--|--|--|--|--|--|
| SYMBOL  | 7511P     |  |  |  |  |  |  |  |
| SURNAME | Fournier  |  |  |  |  |  |  |  |
| DATE    | 10 Mar 11 |  |  |  |  |  |  |  |



United States  
Environmental Protection Agency  
Washington, DC 20460

|                                     |              |
|-------------------------------------|--------------|
| <input type="checkbox"/>            | Registration |
| <input type="checkbox"/>            | Amendment    |
| <input checked="" type="checkbox"/> | Other        |

OPP Identifier Number

**Application for Pesticide - Section I**

|  |  |   |
|--|--|---|
| 1. Company/Product Number<br>Falcon Lab, LLC/79766-5   | 2. EPA Product Manager<br>John Fournier, RAL   | 3. Proposed Classification<br><input type="checkbox"/> None <input type="checkbox"/> Restricted |
| 4. Company/Product (Name)<br>Falcon Lab, LLC/FL-AN540OP  | PM# 91   |   |
| 5. Name and Address of Applicant (Include ZIP Code)<br>Falcon Lab, LLC<br>4900 Este Avenue<br>Cincinnati, OH 45232<br><input checked="" type="checkbox"/> Check if this is a new address | 6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:<br>EPA Reg. No. _____<br>Product Name _____ |   |

**Section - II**

|  |   |
|--|---|
| <input type="checkbox"/> Amendment - Explain below.                            | <input checked="" type="checkbox"/> Final printed labels in response to Agency letter dated _____ |
| <input type="checkbox"/> Resubmission in response to Agency letter dated _____ | <input type="checkbox"/> "Me Too" Application.  |
| <input checked="" type="checkbox"/> Notification - Explain below.              | <input type="checkbox"/> Other - Explain below.   |

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

Per PR-Notice 98-10  
Primary Brand Name Change to "FL-AN540OP"  
Address Change: 4900 Este Avenue, Cincinnati, OH 45232

**Section - III**

|   |  |   |                                      |   |   |
|---|--|---|--------------------------------------|---|---|
| 1. Material This Product Will Be Packaged In:   |  |   |                                      | 2. Type of Container  |   |
| Child-Resistant Packaging<br><input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No                     | Unit Packaging<br><input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No | Water Soluble Packaging<br><input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No |                                      | <input type="checkbox"/> Metal  | <input checked="" type="checkbox"/> Plastic |
|   |  |   |                                      | <input type="checkbox"/> Glass  | <input type="checkbox"/> Paper              |
| * Certification must be submitted   |  | If "Yes" Unit Packaging wgt.  | No. per container                    | If "Yes" Package wgt  | Other (Specify) _____                       |
| 3. Location of Net Contents Information<br><input type="checkbox"/> Label <input checked="" type="checkbox"/> Container |  | 4. Size(s) Retail Container<br>1 pint, 1 quart, 1 gallon  |                                      | 5. Location of Label Directions<br><input type="checkbox"/> Container |   |
| 6. Manner in Which Label is Affixed to Product<br><input checked="" type="checkbox"/> Lithograph Paper, glued Stenciled |  |   | <input type="checkbox"/> Other _____ |   |   |

**Section - IV**

|  |                                       |  |
|--|---------------------------------------|--|
| 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)  |                                       |  |
| Name<br>Vickie Forster   | Title<br>Agent for Falcon Lab, LLC    | Telephone No. (Include Area Code)<br>302-383-3313                            |
| <b>Certification</b><br>I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. |                                       | <b>6. Date Application Received (Stamped)</b><br><br>_____<br>_____<br>_____ |
| 2. Signature<br>Vickie A. Forster<br><small>Digitally signed by Vickie A. Forster<br/>DN: cn=Vickie A. Forster, o=Forster Associates Consulting, ou, email=vforster@forsterassociatesconsulting.com, c=US<br/>Date: 2011.02.13 09:17:39 -0500</small>                              | 3. Title<br>Agent for Falcon Lab, LLC |  |
| 4. Typed Name<br>Vickie A. Forster   | 5. Date<br>February 14, 2011          |  |

79766-5 3/23



**Non-selective Herbicide**

FOR ORGANIC PRODUCTION

**MASTER LABEL**

**SUBLABEL A: AGRICULTURAL USE**  
**SUBLABEL B: COMMERCIAL USE**

**NOT FOR FOOD USE**

Active ingredient:

|                          |             |
|--------------------------|-------------|
| Ammonium Nonanoate ..... | 40.0 wt.%   |
| Other ingredients .....  | 60.0 wt.%   |
| Total .....              | 100.00 wt.% |

FL-AN5400P contains 3.3 lbs. of ammonium nonanoate per US gallon

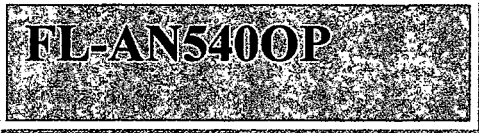
EPA Reg. No. 79766-5

This product is protected by U. S. Patent No. 6,323,156

Net Contents: 1 pint (16 fl. oz.)

**NOTIFICATION**  
 Date Reviewed: MAR 10 2011  
 Reviewed By: John Fournier, BPPD

.....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....



**Non-selective Herbicide**

FOR ORGANIC PRODUCTION

**FOR AGRICULTURAL USE**  
**SUBLABEL A**

FOR CONTACT SPRAY CONTROL OR BURNDOWN OF WEEDS AND GRASSES  
FOR ORNAMENTALS, TURF, TREES IN AND AROUND FARMS, FORESTS,  
NURSERIES AND GREENHOUSES

**NOT FOR FOOD USE**

**KEEP OUT OF REACH OF CHILDREN**

**WARNING "AVISO"**

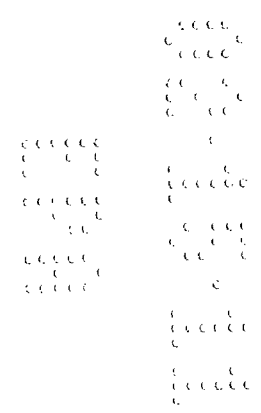
"Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)"

Active ingredient:  
Ammonium Nonanoate .....40.0 wt.%  
Other ingredients ..... 60.0 wt.%  
Total ..... 100.00 wt.%  
FL-AN5400P contains 3.3 lbs. of ammonium nonanoate per US gallon

EPA Reg. No.79766-5

This product is protected by U. S. Patent No. 6,323,156

Net Contents: 1 pint (16 fl. oz.)



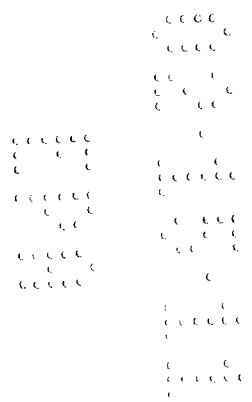
# PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### WARNING

Causes substantial, but temporary eye irritation. Do not get in eyes or on clothing. Wear goggles. Harmful if inhaled. Avoid breathing spray mist. Causes moderate skin irritation. Avoid contact with skin or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse.

| FIRST AID  |   |
|--|---|
| <b>If in eyes</b>  | <ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul> |
| <b>If inhaled</b>  | <ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul> |
| <b>If on skin or clothing</b>  | <ul style="list-style-type: none"> <li>• Take off contaminated clothing</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>  |
| HOT LINE NUMBER  |   |
| Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical advice. |   |



**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:**

- Coveralls worn over short-sleeve shirt and short pants
- Socks and chemical resistant footwear
- Chemical resistant gloves
- Protective eyewear
- When mixing and loading wear a chemical resistant apron

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergents and hot water. Keep and wash PPE separately from other laundry.

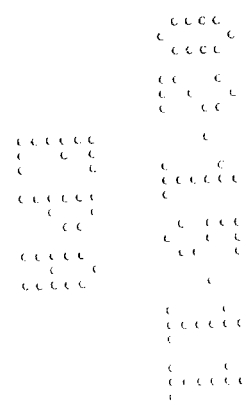
**USER SAFETY RECOMMENDATIONS**

**Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

**For terrestrial uses:** This pesticide is toxic to fish and aquatic invertebrates. Use care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. This product is toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product if bees are visiting the treatment area.



## DIRECTIONS FOR USE

**It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State/Tribal agency responsible for pesticide regulation.**

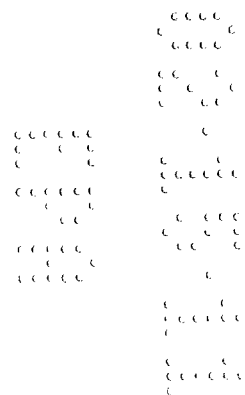
### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated such as plants, soil, or water is:

- Coveralls worn over short-sleeve shirt and short pants
- Socks and chemical resistant footwear
- Chemical resistant gloves
- Protective eyewear



## METHODS OF USE AND GENERAL APPLICATION INSTRUCTIONS

### General Instructions:

**FL-AN540OP** is a contact non-selective herbicide for spray application only to undesirable plant growth. Do not allow spray to contact any green plant parts of desirable plants. **FL-AN540OP** provides control and burndown suppression of annual and perennial broadleaf and grass weeds. Spore producing plants such as mosses and liverworts are also controlled. The amount of burndown and the duration of weed suppression may be reduced when weed growth conditions are unfavorable or when plants are mature.

**FL-AN540OP** is non-volatile and water soluble for foliar application in tractor powered field-type sprayers or manual pump sprayers. Complete and uniform coverage of weeds by the spray solution is required for the best weed control. Plant foliage will change from a green color to brown/black necrotic tissue within one to two hours after spray application of **FL-AN540OP** diluted with water. **FL-AN540OP** effect on plant tissue may be more rapid in warm weather than in cold conditions. However, weed control is normally unaffected by temperature.

**FL-AN540OP** herbicide is a soap product which penetrates the cell walls of plants to disrupt the cellular organization of physiological functions which are compartmentalized by membranes within the cell walls. Plant growth ceases when cellular contents are mixed which causes brown necrotic plant tissue.

**FL-AN540OP** does not migrate through the soil and is not translocated in plants. **To ensure satisfactory control, plant leaves must be thoroughly and uniformly covered with the spray solution.** **FL-AN540OP** does not provide any residual weed control in soil to affect germinating weed seeds.

### Mixing and Application Instructions:

For use, **FL-AN540OP** is diluted with water to the specified concentration for effective control of the undesirable vegetation. Apply using standard methods of liquid herbicide application. Dilution must be in accordance with label instructions. Do not apply this product through any type of irrigation system.

A 12% v/v dilution is recommended for most weed control situations and based on the results, applicators may increase or decrease spray concentrations as discussed in the following text and tables to obtain better control or to reduce herbicide use.

**The degree of dilution for application is based on the concentration of active ingredient needed for the size of vegetation to be suppressed or the rate of herbicidal effect desired. The larger the vegetation, the higher the concentration (less dilution of FL-AN540OP) required for rapid action. See required concentration for variously sized weeds and grasses in Dosage and Application Rates Section. Hard to control or suppress weeds (perennial weeds and some grasses) may require several applications for complete control.**

Spray equipment options include hand-held, boom sprayers, pressure sprayers and hose-end sprayers. Spray nozzles that produce a uniform spray will give maximum coverage of the



leaves and improved weed control. **FL-AN540OP** is completely soluble in water and when uniformly mixed, no additional mixing or agitation is required.

**Application Precautions:**

- Do not apply to weeds when wet from dew, rain or irrigation.
- Do not irrigate within 2 hours after application
- Do not apply if rainfall is expected within 2 hours.

During application, some foaming may occur; however, weed control is unaffected if the foam is deposited on the plant surface and is not blown away as drift. Foaming can be reduced by using the minimum spray pressure required for a uniform application to the target weeds. Use low spray pressure to reduce foaming and avoid contact with desirable plants. Most spray nozzles are designed to operate at 10 to 15 psi and provide uniform spray coverage of weeds.

**Mixing:**

Fill sprayer tank with half the required amount of water, add the full amount of **FL-AN540OP** to be used (see Dilution Factors below), then fill the sprayer tank with the remainder of the water required for the desired final concentration. Since **FL-AN540OP** is completely soluble in water and when uniformly dispersed in water, continuous mixing or agitation is not required.

**Broadcast Application with Field Sprayer Boom Equipment**

The amount of weed vegetation will determine the spray volume required for complete coverage of undesired plants (weeds). Weed vegetation conditions that affect spray coverage are number of weeds present, leaf shape, weed size and weed species. For weeds of over 1 inch height do not use less than 30 gal/acre. Large weeds of 12 to 18 inch height may require 80 to 125 gal/acre or more for control.

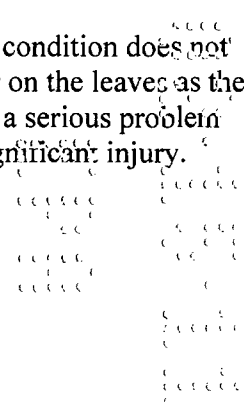
**Hand-Held Equipment**

Thorough saturation of the foliage and stems is required for control, but stop sprays when run-off from weed leaves occurs. Use low spray pressure to reduce foaming and avoid contact with desirable plants. Most spray nozzles are designed to operate at 10 to 15 psi and provide uniform spray coverage of weeds.

**Directed Spray Equipment**

Use a shielded sprayer to prevent spray contact on desirable plants. Avoid spray contact of green plant stems or green bark of young trees and shrubs.

**NOTE:** In areas of hard water, the final mixture may appear milky. This condition does not change the effectiveness of the treatment. Some visible foam may appear on the leaves as the plants are sprayed. Overspray or drift onto desirable plants is usually not a serious problem because leaves and stems require a thoroughly wet spray coverage for significant injury. Repeat applications as often as necessary to obtain desired control.



### Dosage and Application Rates:

For general weed and grass control, rates are based on the size of the plants and/or the desired speed of kill. The larger the plants, the higher the dosage rates needed to ensure maximum herbicidal activity. Also, the higher the concentration, the quicker the plants wilt and turn brown. Apply **FL-AN540OP** spray solutions only when weed surfaces are dry.

The rate table presents the suggested percent volume/volume solutions of **FL-AN540OP** to use for application as follows:

- Use a 6 to 8 % V/V **FL-AN540OP** spray solution for control of annual weeds of 1 inch height or less and for control of liverworts and mosses.
- Use an 8 to 10% V/V **FL-AN540OP** spray solution for control of annual weeds over 1 inch height and up to 4 inch height.
- Use a 10 to 13% V/V **FL-AN540OP** spray solution for weeds over 4 inch height and for hard to control weeds.
- A 15% V/V **FL-AN540OP** spray solution is the maximum labeled rate. Use this rate for hard to control perennial weeds or extremely dense weed growth.

Repeat spray applications as necessary to obtain the desired control or suppression of weeds from newly germinated weed seeds and regrowth from roots or stems.

#### RATE TABLE

| Final Spray Volume (gallons) | Amount of <b>FL-AN540OP</b> for Percent V/V (Volume/Volume) Solution |          |          |         |         |
|------------------------------|--|----------|----------|---------|---------|
|                              | 6%   | 8%       | 10%      | 13%     | 15%     |
| 1                            | 8 fl oz  | 10 fl oz | 13 fl oz | 1 pt    | 1.2 pt  |
| 2                            | 1 pt   | 1.3 pt   | 1.3 pt   | 2 pt    | 2.4 pt  |
| 5                            | 2.5 pt   | 3.3 pt   | 4 pt     | 5 pt    | 6 pt    |
| 10                           | 5 pt   | 6.5 pt   | 1 gal    | 1.3 gal | 1.5 gal |
| 20                           | 1.3 gal  | 1.6 gal  | 2 gal    | 2.6 gal | 3.0 gal |

| <u>Height of Plants to be Controlled</u> | <u>Spray Solution (% V/V)</u> |
|--|-------------------------------|
| 1 inch or less                           | 6 to 8%                       |
| 1 to 3 inches                            | 8 to 10%                      |
| Above 3 inches                           | 10 to 13%                     |

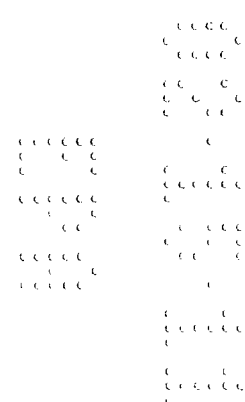
**NOTE:** Do not use spray concentrations higher than 15% in a pressure sprayer since unacceptable foaming and bubble formation may occur at the nozzle heads.

## Use Methods

Determine the weed control situation and select the use method required as follows:

**A. Vegetative Burndown:** Broadcast spray for weed control for no-till planting or seedbed preparation to control weeds prior to seeding or transplanting. Spot sprays may be used in ornamentals and turf.

**B. Directed and shielded sprays:** Spray nozzle type or configuration for directed spray or a shield placed around the nozzle to prevent spray contact on the foliage or green stems or bark. Directed/shielded spray applications to area between plastic mulch strips and staked crops for weed control.



**PESTS**

**I. Weeds controlled or suppressed by FL-AN540OP:**

**COMMON NAMES**

**TAXONOMIC NAMES**

**Broadleaf Weeds:**

|                                 |                                |
|---------------------------------|--------------------------------|
| Algae                           | <i>Gloeocapsa magma</i>        |
| Bittercress, hairy              | <i>Cardamine hirsuta</i>       |
| Chickweed, common               | <i>Stellaria media</i>         |
| Chickweed, mouse-ear            | <i>Cerastium vulgatum</i>      |
| Cocklebur, common               | <i>Xanthium strumarium</i>     |
| Corn spurry                     | <i>Spergula arvensis</i>       |
| Cudweed, purple                 | <i>Gnaphalium purpureum</i>    |
| Groundsel                       | <i>Senecio spp.</i>            |
| Lambsquarters, common           | <i>Chenopodium album</i>       |
| Liverwort                       | <i>Machantia spp.</i>          |
| Marestail or Horseweed rosettes | <i>Conyza canadensis</i>       |
| Morningglory, annual            | <i>Ipomoea spp.</i>            |
| Moss                            | <i>Bryophyta</i>               |
| Mustards                        | <i>Brassica spp.</i>           |
| Oxalis or Woodsorrel            | <i>Oxalis stricta</i>          |
| Pansy, wild                     | <i>Viola tricolor</i>          |
| Plantain                        | <i>Plantago spp.</i>           |
| Pigweed, smooth and redroot     | <i>Amaranthus spp.</i>         |
| Mallow, roundleaved             | <i>Malva spp.</i>              |
| Moneywort                       | <i>Lysimachia nummularia</i>   |
| Shepherdspurse                  | <i>Capsella bursa-pastoris</i> |
| Sorrel, sheep                   | <i>Rumex acetosella</i>        |
| Spurge, spotted                 | <i>Euphorbia maculata</i>      |
| Field pennycress                | <i>Thlaspi arvense</i>         |
| Velvetleaf                      | <i>Abutilon theophrasti</i>    |

**Grass and Other Weeds:**

|                      |                              |
|----------------------|------------------------------|
| Bentgrass, colonial  | <i>Agrostis tenuis</i>       |
| Bluegrass, annual    | <i>Poa annua</i>             |
| Crabgrass, large     | <i>Digitaria sanguinalis</i> |
| Fescue, creeping red | <i>Festuca rubra</i>         |
| Fescue, hard         | <i>Festuca ovina</i>         |
| Nimblewill           | <i>Muhlenbergia scheberi</i> |
| Onion, wild          | <i>Allium canadense</i>      |
| Ryegrass, perennial  | <i>Lolium perenne</i>        |
| Star-of-Bethlehem    | <i>Ornithogalum nutans</i>   |

**II. Weeds Moderately Difficult to Control<sup>1</sup>**

|                         |                                |
|-------------------------|--------------------------------|
| Bermudagrass (Wireweed) | <i>Cynodon dactylon</i>        |
| Bindweed, field         | <i>Convolvulus arvensis</i>    |
| Dandelion               | <i>Taraxacum officinale</i>    |
| Nutsedge, yellow        | <i>Cyperus esculentus</i>      |
| Ragweed, common         | <i>Ambrosia artemisiifolia</i> |

<sup>1</sup>Use 13 to 15% V/V FL-AN540OP for control or suppression

**STORAGE AND DISPOSAL**

**DO NOT** contaminate water, food or feed by storage or disposal.

**Pesticide Storage:** Store container in cool place until used.

**Pesticide Disposal:** Wastes resulting from use of this product must be disposed of on-site or at an approved waste disposal facility.

**Container Disposal:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse as follows: Empty the remaining contents into application equipment or a tank mix and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into the application equipment or a tank mix or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

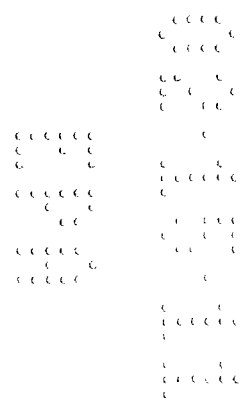
Batch Code: XXX

For non-medical emergencies or spills, see **FL-AN540OP** MSDS or call CHEMTREC at 800-424-9300.

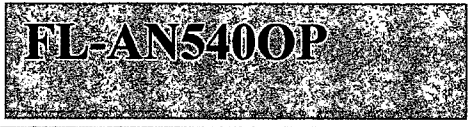
**Warranty and Disclaimer Notice:**

To the extent consistent with applicable law, Falcon Lab, LLC, makes no warranty or guarantee of any kind, expressed or implied concerning the effects of use of this product, other than those specified on this label. Buyers or users accept all responsibility for results due to misuse or improper handling of this product.

**Produced for:**  
**Falcon Lab LLC**  
**4900 Este Avenue**  
**Cincinnati, OH 45232**  
**513-762-2500**  
**www.falconlabllc.com**



14/23



**Non-selective Herbicide**

 FOR ORGANIC PRODUCTION

**FOR COMMERCIAL USE**  
**SUBLABEL B**

FOR CONTACT SPRAY CONTROL OR BURNDOWN OF WEEDS AND GRASSES  
FOR USE IN STRUCTURAL PEST CONTROL, CONTROL OF VEGETATION IN  
NON-CROP AREAS, PASTURE AND RANGELAND  
FOR USE IN PARKS, GOLF COURSES AND PUBLIC AND PRIVATE LAWNS AND  
GROUNDS FOR AESTHETIC PURPOSES  
FOR PLANTS IN HABITATIONS, RESIDENTIAL FRUIT AND VEGETABLE  
GARDENS; RESIDENTIAL GREENHOUSES

**NOT FOR FOOD USE**

**KEEP OUT OF REACH OF CHILDREN**

**WARNING "AVISO"**

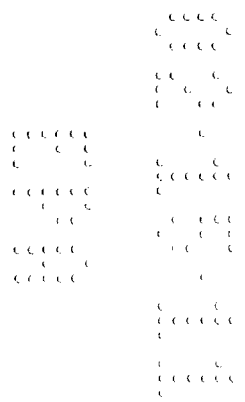
**"Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)"**

Active ingredient:  
Ammonium Nonanoate . . . . . 40.0 wt.%  
Other ingredients . . . . . 60.0 wt.%  
Total . . . . . 100.00 wt.%  
FL-AN540OP contains 3.3 lbs. of ammonium nonanoate per US gallon

EPA Reg. No.79766-5

This product is protected by U. S. Patent No. 6,323,156

Net Contents: 1 pint (16 fl. oz.)



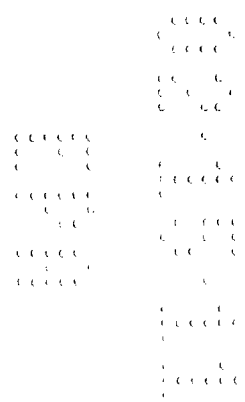
### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### WARNING

Causes substantial, but temporary eye irritation. Do not get in eyes or on clothing. Wear goggles. Harmful if inhaled. Avoid breathing spray mist. Causes moderate skin irritation. Avoid contact with skin or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse.

| <b>FIRST AID</b>   |   |
|--|---|
| <b>If in eyes</b>  | <ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul> |
| <b>If inhaled</b>  | <ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul> |
| <b>If on skin or clothing</b>  | <ul style="list-style-type: none"> <li>• Take off contaminated clothing</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>  |
| <b>HOT LINE NUMBER</b>   |   |
| Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical advice. |   |



**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:**

- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergents and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS**

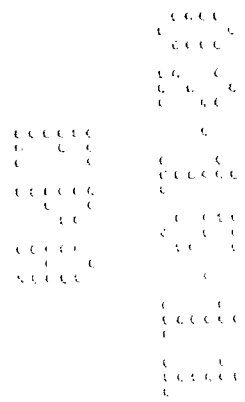
**Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

**For terrestrial uses:** This pesticide is toxic to fish and aquatic invertebrates. Use care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

This product is toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product if bees are visiting the treatment area.





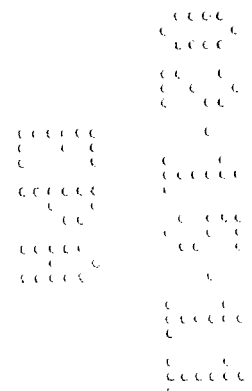
# DIRECTIONS FOR USE

**It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State/Tribal agency responsible for pesticide regulation.**

## NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried.



## METHODS OF USE AND GENERAL APPLICATION INSTRUCTIONS

### General Instructions:

**FL-AN540OP** is a contact non-selective herbicide for spray application only to undesirable plant growth. Do not allow spray to contact any green plant parts of desirable plants. **FL-AN540OP** provides control and burndown suppression of annual and perennial broadleaf and grass weeds. Spore producing plants such as mosses and liverworts are also controlled. The amount of burndown and the duration of weed suppression may be reduced when weed growth conditions are unfavorable or when plants are mature.

**FL-AN540OP** is non-volatile and water soluble for foliar application in tractor powered field-type sprayers or manual pump sprayers. Complete and uniform coverage of weeds by the spray solution is required for the best weed control. Plant foliage will change from a green color to brown/black necrotic tissue within one to two hours after spray application of **FL-AN540OP** diluted with water. **FL-AN540OP** effect on plant tissue may be more rapid in warm weather than in cold conditions. However, weed control is normally unaffected by temperature.

**FL-AN540OP** herbicide is a soap product which penetrates the cell walls of plants to disrupt the cellular organization of physiological functions which are compartmentalized by membranes within the cell walls. Plant growth ceases when cellular contents are mixed which causes brown necrotic plant tissue.

**FL-AN540OP** does not migrate through the soil and is not translocated in plants. **To ensure satisfactory control, plant leaves must be thoroughly and uniformly covered with the spray solution.** **FL-AN540OP** does not provide any residual weed control in soil to affect germinating weed seeds.

### Mixing and Application Instructions:

For use, **FL-AN540OP** is diluted with water to the specified concentration for effective control of the undesirable vegetation. Apply using standard methods of liquid herbicide application. Dilution must be in accordance with label instructions. Do not apply this product through any type of irrigation system.

A 12% v/v dilution is recommended for most weed control situations and based on the results, applicators may increase or decrease spray concentrations as discussed in the following text and tables to obtain better control or to reduce herbicide use.

**The degree of dilution for application is based on the concentration of active ingredient needed for the size of vegetation to be suppressed or the rate of herbicidal effect desired. The larger the vegetation, the higher the concentration (less dilution of FL-AN540OP) required for rapid action. See required concentration for variously sized weeds and grasses in Dosage and Application Rates Section. Hard to control or suppress weeds (perennial weeds and some grasses) may require several applications for complete control.**

Spray equipment options include hand-held, boom sprayers, pressure sprayers and hose-end sprayers. Spray nozzles that produce a uniform spray will give maximum coverage of the

leaves and improved weed control. **FL-AN540OP** is completely soluble in water and when uniformly mixed, no additional mixing or agitation is required.

**Application Precautions:**

- Do not apply to weeds when wet from dew, rain or irrigation.
- Do not irrigate within 2 hours after application
- Do not apply if rainfall is expected within 2 hours.

During application, some foaming may occur; however, weed control is unaffected if the foam is deposited on the plant surface and is not blown away as drift. Foaming can be reduced by using the minimum spray pressure required for a uniform application to the target weeds. Use low spray pressure to reduce foaming and avoid contact with desirable plants. Most spray nozzles are designed to operate at 10 to 15 psi and provide uniform spray coverage of weeds.

**Mixing:**

Fill sprayer tank with half the required amount of water, add the full amount of **FL-AN540OP** to be used (see Dilution Factors below), then fill the sprayer tank with the remainder of the water required for the desired final concentration. Since **FL-AN540OP** is completely soluble in water and when uniformly dispersed in water, continuous mixing or agitation is not required.

**Broadcast Application with Field Sprayer Boom Equipment**

The amount of weed vegetation will determine the spray volume required for complete coverage of undesired plants (weeds). Weed vegetation conditions that affect spray coverage are number of weeds present, leaf shape, weed size and weed species. For weeds of over 1 inch height do not use less than 30 gal/acre. Large weeds of 12 to 18 inch height may require 80 to 125 gal/acre or more for control.

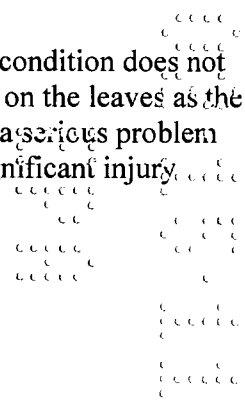
**Hand-Held Equipment**

Thorough saturation of the foliage and stems is required for control, but stop sprays when run-off from weed leaves occurs. Use low spray pressure to reduce foaming and avoid contact with desirable plants. Most spray nozzles are designed to operate at 10 to 15 psi and provide uniform spray coverage of weeds.

**Directed Spray Equipment**

Use a shielded sprayer to prevent spray contact on desirable plants. Avoid spray contact of green plant stems or green bark of young trees and shrubs.

**NOTE:** In areas of hard water, the final mixture may appear milky. This condition does not change the effectiveness of the treatment. Some visible foam may appear on the leaves as the plants are sprayed. Overspray or drift onto desirable plants is usually not a serious problem because leaves and stems require a thoroughly wet spray coverage for significant injury. Repeat applications as often as necessary to obtain desired control.



**Dosage and Application Rates:**

For general weed and grass control, rates are based on the size of the plants and/or the desired speed of kill. The larger the plants, the higher the dosage rates needed to ensure maximum herbicidal activity. Also, the higher the concentration, the quicker the plants wilt and turn brown. Apply **FL-AN540OP** spray solutions only when weed surfaces are dry.

The rate table presents the suggested percent volume/volume solutions of **FL-AN540OP** to use for application as follows:

- Use a 6 to 8 % V/V **FL-AN540OP** spray solution for control of annual weeds of 1 inch height or less and for control of liverworts and mosses.
- Use an 8 to 10% V/V **FL-AN540OP** spray solution for control of annual weeds over 1 inch height and up to 4 inch height.
- Use a 10 to 13% V/V **FL-AN540OP** spray solution for weeds over 4 inch height and for hard to control weeds.
- A 15% V/V **FL-AN540OP** spray solution is the maximum labeled rate. Use this rate for hard to control perennial weeds or extremely dense weed growth.

Repeat spray applications as necessary to obtain the desired control or suppression of weeds from newly germinated weed seeds and regrowth from roots or stems.

**RATE TABLE**

| Final Spray Volume (gallons) | Amount of <b>FL-AN540OP</b> for Percent V/V (Volume/Volume) Solution |          |          |         |         |
|------------------------------|--|----------|----------|---------|---------|
|                              | 6%   | 8%       | 10%      | 13%     | 15%     |
| 1                            | 8 fl oz  | 10 fl oz | 13 fl oz | 1 pt    | 1.2 pt  |
| 2                            | 1 pt   | 1.3 pt   | 1.3 pt   | 2 pt    | 2.4 pt  |
| 5                            | 2.5 pt   | 3.3 pt   | 4 pt     | 5 pt    | 6 pt    |
| 10                           | 5 pt   | 6.5 pt   | 1 gal    | 1.3 gal | 1.5 gal |
| 20                           | 1.3 gal  | 1.6 gal  | 2 gal    | 2.6 gal | 3.0 gal |

| <u>Height of Plants to be Controlled</u> | <u>Spray Solution (% V/V)</u> |
|--|-------------------------------|
| 1 inch or less                           | 6 to 8%                       |
| 1 to 3 inches                            | 8 to 10%                      |
| Above 3 inches                           | 10 to 13%                     |

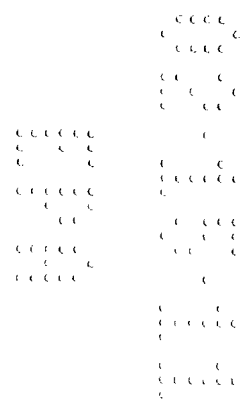
**NOTE:** Do not use spray concentrations higher than 15% in a pressure sprayer since unacceptable foaming and bubble formation may occur at the nozzle heads.

## Use Methods

Determine the weed control situation and select the use method required as follows:

**A. Vegetative Burndown:** Broadcast spray for weed control for no-till planting or seedbed preparation to control weeds prior to seeding or transplanting. Spot sprays may be used in ornamentals and turf.

**B. Directed and shielded sprays:** Spray nozzle type or configuration for directed spray or a shield placed around the nozzle to prevent spray contact on the foliage or green stems or bark. Directed/shielded spray applications to area between plastic mulch strips and staked crops for weed control.



**PESTS**

**I. Weeds controlled or suppressed by FL-AN540OP:**

| COMMON NAMES   | TAXONOMIC NAMES                |
|--|--------------------------------|
| <b>Broadleaf Weeds:</b>                                      |                                |
| Algae  | <i>Gloeocapsa magma</i>        |
| Bittercress, hairy   | <i>Cardamine hirsuta</i>       |
| Chickweed, common  | <i>Stellaria media</i>         |
| Chickweed, mouse-ear   | <i>Cerastium vulgatum</i>      |
| Cocklebur, common  | <i>Xanthium strumarium</i>     |
| Corn spurry  | <i>Spergula arvensis</i>       |
| Cudweed, purple  | <i>Gnaphalium purpureum</i>    |
| Groundsel  | <i>Senecio spp.</i>            |
| Lambsquarters, common  | <i>Chenopodium album</i>       |
| Liverwort  | <i>Machantia spp.</i>          |
| Marestail or Horseweed rosettes                              | <i>Conyza canadensis</i>       |
| Morningglory, annual   | <i>Ipomoea spp.</i>            |
| Moss   | <i>Bryophyta</i>               |
| Mustards   | <i>Brassica spp.</i>           |
| Oxalis or Woodsorrel   | <i>Oxalis stricta</i>          |
| Pansy, wild  | <i>Viola tricolor</i>          |
| Plantain   | <i>Plantago spp.</i>           |
| Pigweed, smooth and redroot                                  | <i>Amaranthus spp.</i>         |
| Mallow, roundleaved  | <i>Malva spp.</i>              |
| Moneywort  | <i>Lysimachia nummularia</i>   |
| Shepherdspurse   | <i>Capsella bursa-pastoris</i> |
| Sorrel, sheep  | <i>Rumex acetosella</i>        |
| Spurge, spotted  | <i>Euphorbia maculata</i>      |
| Field pennycress   | <i>Thlaspi arvense</i>         |
| Velvetleaf   | <i>Abutilon theophrasti</i>    |
| <b>Grass and Other Weeds:</b>                                |                                |
| Bentgrass, colonial  | <i>Agrostis tenuis</i>         |
| Bluegrass, annual  | <i>Poa annua</i>               |
| Crabgrass, large   | <i>Digitaria sanguinalis</i>   |
| Fescue, creeping red   | <i>Festuca rubra</i>           |
| Fescue, hard   | <i>Festuca ovina</i>           |
| Nimblewill   | <i>Muhlenbergia scheberi</i>   |
| Onion, wild  | <i>Allium canadense</i>        |
| Ryegrass, perennial  | <i>Lolium perenne</i>          |
| Star-of-Bethlehem  | <i>Ornithogalum nutans</i>     |
| <b>II. Weeds Moderately Difficult to Control<sup>1</sup></b> |                                |
| Bermudagrass (Wireweed)                                      | <i>Cynodon dactylon</i>        |
| Bindweed, field  | <i>Convolvulus arvensis</i>    |
| Dandelion  | <i>Taraxacum officinale</i>    |
| Nutsedge, yellow   | <i>Cyperus esculentus</i>      |
| Ragweed, common  | <i>Ambrosia artemisiifolia</i> |

<sup>1</sup>Use 13 to 15% V/V FL-AN540OP for control or suppression

**STORAGE AND DISPOSAL**

**DO NOT** contaminate water, food or feed by storage or disposal.

**Pesticide Storage:** Store container in cool place until used.

**Pesticide Disposal:** Wastes resulting from use of this product must be disposed of on-site or at an approved waste disposal facility.

**Container Disposal:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse as follows: Empty the remaining contents into application equipment or a tank mix and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into the application equipment or a tank mix or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Batch Code: XXX

For non-medical emergencies or spills, see **FL-AN540OP** MSDS or call CHEMTREC at 800-424-9300.

**Warranty and Disclaimer Notice:**

To the extent consistent with applicable law, Falcon Lab, LLC, makes no warranty or guarantee of any kind, expressed or implied concerning the effects of use of this product, other than those specified on this label. Buyers or users accept all responsibility for results due to misuse or improper handling of this product.

**Produced for:**  
**Falcon Lab LLC**  
**4900 Este Avenue**  
**Cincinnati, OH 45232**  
**513-762-2500**  
**www.falconlabllc.com**

