



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

June 17, 2019

Sam Ghantous  
Global Head, Product Safety & Regulations  
Emery Oleochemicals, LLC  
4900 Este Ave.  
Cincinnati, Ohio 45232

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment – To update the product label information: (1) Combining Thrips with other listed insects and declaring all non-public health insect as “*Not Approved For Use in California,*” (2) Declaring Cotton Use claims as “*Not Approved For Use in California,*” (3) Correcting the tobacco use dosage, (4) Replacing the commercial section package size 270 gal with 260 gals, (5) Correcting typos on pages 11, 13, 24, and (6) Revising the storage and disposal instructions.  
Product Name: FL-AN140F  
EPA Registration Number: 87663-11  
Application Date: 10/30/2018  
OPP Decision Number: 545578

Dear Mr. Ghantous:

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

This approval does not affect any terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release this product for shipment with the new labeling. In accordance with 40 CFR § 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. “To distribute or sell” is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR § 152.3.

Should you wish to add/retain a reference to your company’s website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the EPA. If the

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website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

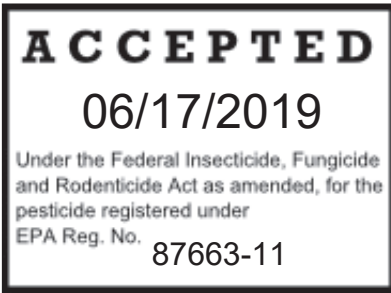
If you have any questions, please contact Sandra Owusu-Ansah by phone at (703) 347-0350 or via email at [owusu-ansah.sandra@epa.gov](mailto:owusu-ansah.sandra@epa.gov).

Sincerely,



Gina M. Burnett, M.S.  
Senior Regulatory Advisor  
Biochemical Pesticide Branch  
Biopesticides and Pollution  
Prevention Division (7511P)  
Office of Pesticide Programs

Enclosure



## **FL-AN140F**

(Alternate Brand Name “EMERION™ W 40 SL”)

### **Non-selective Herbicide**

### **MASTER LABEL**

#### **SUBLABEL A: FOR AGRICULTURAL AND COMMERCIAL USE**

FOR CONTACT SPRAY CONTROL OR BURNDOWN OF WEEDS AND GRASSES  
FOR FOOD CROPS, FIELD CROPS, PASTURES, ORNAMENTALS, TURF, LANDSCAPES,  
INTERIORSCAPES, GREENHOUSES, NURSERY CROPS, FARMSTEADS AND AROUND BUILDINGS  
AND INDUSTRIAL SITES

FOR CONTROL OF ADELGIDS, APHIDS, EARWIGS, GRASSHOPPERS, LACEBUGS, MEALYBUGS,  
MITES, PLANTBUGS, PSYLLIDS, SAWFLY LARVAE, SCALES, TENT CATERPILLARS, THRIPS  
WHITEFLIES AND WOOLY APHIDS *(Not Approved For Use In California)*

#### **SUBLABEL B: FOR RESIDENTIAL USE**

FOR CONTACT SPRAY CONTROL OR BURNDOWN OF WEEDS AND GRASSES  
FOR HOMES AND GARDENS

**Active ingredient:**

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

Optional Label Claims:

- Fast Acting
- Acts on Contact
- Acts on Contact to Kill Green Leafy Tissues
- Results in 15 Minutes
- Effective Weed Control in Cooler Climates
- Quicker Action in Warm / Hot Weather Conditions
- Rain Fast in 2 Hours
- For Control or Burndown of Weeds and Grasses.
- Grass and Weed Knockdown
- Controls Annual and Perennial weeds
- Ideal For Spot Weed Control Around Ornamental Trees, Bushes, Flowers and Landscaping Beds
- Ideal for Weed Control Along Walkways and Driveways
- For Weed Control in and Around the Home and Gardens
- For Agricultural Use
- For Sucker Control Use on Established Nut Trees, Fruit Trees and Vines (Grapes)
- Sucker Control Formula
- Tobacco Sucker Control
- Sucker Control Agent on Flue-Cured Tobacco
- Nut Trees Sucker Control
- Hazelnut Tree Sucker Control
- Fruit Trees Sucker Control
- Cotton Harvesting Aid (*Not Approved For Use In California*)
- Potato Harvesting Aid
- Row Middles Weed and Grass Control
- Based on Naturally Derived Fatty Acids
- Quickly Kills Green Plant Tissue on Contact
- Readily Biodegradable
- Moss and Algae Control Formula
- For Use as a Harvest Aid and Crop Desiccant on a Variety of Crops
- Will Not Leach Through the Soil to Harm Desirable Plants
- Leaves No Harmful Residues
- Exempt from Tolerance
- For Insect Control (*Not Approved For Use In California*)

**SUBLABEL A: FOR AGRICULTURAL AND COMMERCIAL USE**

FOR CONTACT SPRAY CONTROL OR BURNDOWN OF WEEDS AND GRASSES  
FOR FOOD CROPS, FIELD CROPS, PASTURES, ORNAMENTALS, TURF, LANDSCAPES, INTERIORSCAPES,  
GREENHOUSES, NURSERY CROPS, FARMSTEADS AND AROUND BUILDINGS AND INDUSTRIAL SITES

FOR CONTROL OF ADELGIDS, APHIDS, EARWIGS, GRASSHOPPERS, LACEBUGS, MEALYBUGS, MITES,  
PLANTBUGS, PSYLLIDS, SAWFLY LARVAE, SCALES, TENT CATERPILLARS, THRIPS WHITEFLIES AND  
WOOLY APHIDS *(Not Approved For Use In California)*

**FL-AN140F**

(Alternate Brand Name “EMERION™ W 40 SL”)

**Non-selective Herbicide**

**Active ingredient:**

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

FL-AN140F contains 3.3 lbs. of ammonium nonanoate per US gallon

**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.)"**

<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>EMERGENCY NUMBER</b>	
<p><b>FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE, CALL THE NATIONAL POISON CONTROL CENTER 1-800-222-1222.</b></p> <p>Have the product container or label with you when calling a poison control center or doctor.</p>	

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

EPA Reg. No. 87663-11

EPA Establishment No. 87663-OH-001, 72038-DE-001, 06574-KY-001, 064784-OK-001, 75822-TN-001,  
70299-CT-001, 082521-GA-001

Lot No. xxxxxxxx

Net Contents: 3,4,16 & 32 fl oz, 1, 2.5,5, 55, 260 & 6000 gals

## 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, using tobacco or using toilet. Remove and wash contaminated clothing before reuse.

### 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:

- 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 wash water or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

## 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 4 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

### 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-AN140F** is a contact non-selective herbicide for spray application only to undesirable plant growth. For sucker control (e.g., tobacco, hazelnut, etc.) refer to specific use instructions. Do not allow spray to contact any green plant parts of desirable plants. **FL-AN140F** 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-AN140F** when applied directly to the soil surface controls listed insects in row middles of staked crops and row crops, between rows covered in plastic mulch, and areas around the base of trees and vine crops in orchards.

**FL-AN140F** 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-AN140F** diluted with water. **FL-AN140F** effect on plant tissue may be more rapid in warm weather than in cold conditions. However, weed control is normally unaffected by temperature.

**FL-AN140F** herbicide is a fatty acid 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-AN140F** 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-AN140F** does not provide any residual weed control in soil to affect germinating weed seeds.

### Mixing and Application Instructions:

For use, **FL-AN140F** 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 6 - 8% v/v dilution is recommended for most weed control situations. Based on the results, applicators may increase spray concentrations as discussed in the following text and tables to obtain better control.

**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 (lower dilution) required for rapid action. See required concentration for variously sized weeds and grasses in Dosage and Application Rates Section. Hard to suppress weeds (deep-rooted perennials and some grasses) may require one or more later 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 thus highest activity. **FL-AN140F** is completely soluble in water and requires only nominal mixing. Once 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-AN140F** 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-AN140F** is completely soluble in water and when uniformly dispersed in water, continuous mixing or agitation is not required.

Always pre-determine the compatibility of labeled tank mixes of FL-AN140F with other products in advance of application. When tank mixing, add formulation in the following sequence: compatibility agent (if needed), wetting agent and soluble powders, flowable liquids, emulsifiable concentrates and FL-AN140F. Mix only with other labeled products.

## **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 of final spray volume. Large weeds of 12 to 18 inch in height may require 80 to 125 gal/acre of final spray volume or more for control.

## **Hand-Held Equipment**

Thorough saturation of the foliage and stems is required for control, but stop sprays prior to run-off from weed leaves. Creating run-off from the leaves may result in the reduction of active material contact with the leaves. Good contact is required for control. 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. A clearly visible foam will appear on the leaves as the plants are sprayed. Drift onto desirable plants should be avoided; however, this is usually not a serious problem because of the need for thorough leaf coverage for control of weeds. Repeat application 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-AN140F** spray solutions only when weed surfaces are dry.

- The rate table presents the suggested percent volume/volume solutions of **FL-AN140F** to use for application as follows:
- Use a 6 to 8 % V/V (Volume/Volume) **FL-AN140F** 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-AN140F** 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-AN140F** spray solution for weeds over 4 inch height, perennial and hard to control weeds.
- 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 # 1**

Final Spray Volume (gallons)	Amount of <b>FL-AN140F</b> for Percent V/V (Volume/Volume) Solution								
	3.5%	4%	6%	8%	10%	13%	15%	20%	32.5%
1	4.5 fl oz	5 fl oz	8 fl oz	10 fl oz	13 fl oz	1 pt	1.2 pt	1.6 pt	2.6 pt
2	9 fl oz	10 fl oz	1 pt	1.3 pt	1.6 pt	2 pt	2.4 pt	3.2 pt	5.2 pt
5	1.4 pt	1.6 pt	2.5 pt	3.3 pt	4 pt	5 pt	6 pt	1 gal	1.6 gal
10	2.8 pt	3.2 pt	5 pt	6.5 pt	1 gal	1.3 gal	1.5 gal	2 gal	3.25 gal
15	4.2 pt	4.8 pt	7.2 pt	1.2 gal	1.5 gal	2 gal	2.25 gal	3 gal	4.9 gal
20	5.6 pt	6.4 pt	1.3 gal	1.6 gal	2 gal	2.6 gal	3.0 gal	4 gal	6.5 gal
30	1.05 gal	1.2 gal	1.8 gal	2.4 gal	3 gal	4 gal	4.5 gal	6 gal	9.75 gal
50	1.75 gal	2 gal	3 gal	4 gal	5 gal	6.5gal	7.5 gal	10 gal	16.25 gal

Height of Plants  
to be Controlled  
1 inch or less

Spray  
Solution (% V/V)  
6 to 8%

1 to 4 inches

8 to 10%

Above 4 inches

10 to 13%

## 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 crops, ornamentals, pastures 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.
- C. Pre-emergence Spray Before Seeds Germinate and Emerge, and Before Perennial Plants, Tubers, Bulbs or Seed Pieces Sprout and Emerge: Make application before new growth emerges.
- D. Dormant or Post Harvest Spray: Apply after crops are harvested to kill weeds and residual green growth of the crop plants. Apply to dormant crops such as alfalfa or turf.
- E. Sucker Control, Pruning and Trimming: Direct sprays to kill small tender basal suckers in fruit trees, nut trees, field crops and on vines (grapes).
- F. Desiccation and Harvest Aid: Apply only when crop is ready to harvest and green crop leaves or weeds interfere with harvest. Spray as broadcast application over the crop and weeds for rapid desiccation of green plant growth to facilitate harvest. Apply as a harvest aid for cotton (*Not Approved For Use In California*), potatoes and other root, tuber and bulb vegetables.
- G. Industrial and Building Uses: Apply to weeds in walkways, driveways, parking areas and around buildings or structures. Broadcast or spot sprays may be applied to open field areas and rights-of-ways.

# PESTS

## I. Weeds controlled or suppressed by FL-AN140F:

### COMMON NAMES

### TAXONOMIC NAMES

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**Broadleaf Weeds:**

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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</i> spp.
Lambsquarters, common	<i>Chenopodium album</i>
Liverwort	<i>Machantia</i> spp.
Marestail or Horseweed rosettes	<i>Conyza canadensis</i>
Morningglory, annual	<i>Ipomoea</i> spp.
Moss	Bryophyta
Mustards	<i>Brassica</i> spp.
Oxalis or Woodsorrel	<i>Oxalis stricta</i>
Pansy, wild	<i>Viola tricolor</i>
Plantain	<i>Plantago</i> spp.
Pigweed, smooth and redroot	<i>Amaranthus</i> spp.
Mallow, roundleaved	<i>Malva</i> spp.
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>

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**Grass and Other Weeds:**

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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-AN140F for control or suppression

## Crop Uses and Methods of Application\*

Crop Group	Crops	Use Methods
Root Tuber and Perennial Vegetables	Asparagus, artichoke, beet, carrot, ginger, horseradish, parsnip, potato, radish, rutabaga, sweet potato, turnip and yam  <sup>1</sup> Harvest Aid and Desiccation approved for root and tuber crops in this crop group	A, B, C, D, F <sup>1</sup>
Bulb vegetables	Garlic, leek, onion and shallot	A, B, C, F
Leafy Vegetables	Celery, cilantro, cress, endive, fennel, lettuce, parsley, rhubarb, spinach, Swiss chard	A, B
Cole or Brassica Crops	Broccoli, Brussels sprouts, cabbage, cauliflower, collards, kale, kohlrabi, mustard and turnip greens	A, B, C
Legume Vegetables	Beans (Phaseolus spp.: black, green, kidney, lima, mung, navy, pinto, snap and wax), (Vigna spp.: black-eyed, Chinese longbean, cowpea and southern pea), peas (Pisum spp.: garden, green, sugar and snow peas), soybeans	A, B, C
Fruiting Vegetables	Eggplant, okra, pepper, (bell, chili, sweet), pimento, and tomato	A, B, C
Cucurbits and Melons	Cucumber, gourd, muskmelon, cantaloupe, pumpkin, squash, and watermelon	A, B, C
Citrus	Grapefruit, kumquat, lemon, lime, orange, tangerine and tangelo	A, B
Pome Fruit	Apple, crabapple, pear and quince	A, B, E
Stone fruit	Apricot, cherry, nectarine, peach, plum and prune	A, B, E
Small Fruit and Grapes	Blackberry, blueberry, boysenberry, cranberry, currant, dewberry, elderberry, grape (all types), loganberry, olallieberry, raspberry and strawberry	A, B, C, E
Nuts	Almond, brazil nut, chestnut, filbert, macadamia, pecan, pistachio and walnut	A, B, E
Tropical and Other Fruit	Avocado, banana, coconut, date, fig, guava, kiwi, mango, olive, persimmon, papaya and banana	A, B, E
Agronomic Crops and Cereal Grains	Barley, buckwheat, canola, corn (field, popcorn and sweet), cotton ( <i>Not Approved For Use In California</i> ), cowpea, flax, millet, oat, peanut, rice, rye, safflower, sorghum, soybean, sugarcane, sunflower and wheat <sup>1</sup> Harvest Aid and Desiccation approved for cotton ( <i>Not Approved For Use In California</i> ), soybean and wheat	A, B, C, F <sup>1</sup>
Forages and Pastures (Forage or Seeds)	Alfalfa, clovers, trefoil, vetch, bromegrass, fescue, bluegrass, lespedeza, ryegrass, sudangrass, timothy, range grasses and crops grown for livestock feed	A, C, D
Herbs and Spices	Anise, basil, Caraway, chive, cumin, curry, dill, fennel, oregano, mints, rosemary, sage, savory, sweet bay, tarragon, thyme and wintergreen	A, B, C, D
Beverage and Specialty Crops	Cocoa, coffee, hops, tea, tobacco and jojoba	A, B, E

\* Refer to the General Instructions section for Use Methods description

<b>Farmstead, Buildings and Industrial Sites Uses and Methods of Application*</b>		
<b>Group</b>	<b>Crops</b>	<b>Use Methods</b>
<b>Turf, Flowers, Container, Bedding and Landscape Plants</b>	Turfgrass (maintenance, sod or seed production), bedding plants, flowers and ornamental plants	A, B, C, D, E, F
<b>Trees and Shrubs</b>	Christmas trees, forest and commercial trees, landscape trees, nursery production of trees and shrubs	A, B, E
<b>Greenhouse and Indoor Use</b>	All crops, plants and structures	A, B, C, G
<b>Industrial, Parks and Public Areas</b>	Farmstead, homestead, fallow land, storage areas, schools, paved areas, rights-of-ways (road, railroad, utilities, etc.), parking lots, recreational areas (athletic fields, campgrounds, golf courses, playgrounds, etc.), walks, industrial sites (tank farms, lumberyard, warehouses and other structures, etc.)	A, B, G
<b>Buildings, Driveways, Walkways and Other Structures</b>	Benches, decks, equipment, floors, roofs, wall, walks and evaporative cooling pads	G
<b>Dry Aquatic Sites, Dry Drainage Systems, and Around Aquatic Sites</b>	Applications must be made 72 hours prior to reflooding of dry aquatic sites. Dry ditches, dry canals, ditch banks, and for use above the water line or after drawdown of agricultural irrigation water and ditch systems, industrial ponds and disposal systems, and impounded water areas.	A, G
* Refer to the General Instructions section for Use Methods description		

## **USE INFORMATION**

### **Harvesting Aid**

- **Cotton Harvest Aid** (*Not Approved For Use In California*)

**Usage:** FL-AN140F is recommended for use to desiccate the cotton plant green foliage prior to harvesting. Only apply if bolls to be harvested have matured. Make application when 70 to 80 percent of the bolls are open, or according to the State Agricultural Extension Service guidelines in the use area.

**Mixing:** A final spray volume of 15 gallons per acre is recommended to ensure complete coverage of cotton foliage. The minimum recommended dilution is 1.7 gallons of FL-AN140F in the final spray volume of 15 gal (11.3% V/V). Use 3.4 gallons of FL-AN140F in 15 gal (22.7% V/V) for high fertilizer or extreme weather conditions. Use 6.7 gallons of FL-AN140F in 15 gal (44.7% V/V) for dense foliage.

**Application:** Avoiding spray drift at the application site is the responsibility of the applicator and the grower. Use nozzles that produce a medium droplet size at a spray pressure of less than 30 psi. Make applications in the early morning if windy conditions are expected later in the day. An evening application may be appropriate to maximize spray coverage in the lower canopy, but only if temperature inversion conditions are not present. Rank growth cotton may require two applications.

- **Potato Harvest Aid**

**Usage:** FL-AN140F is recommended for use to desiccate the potato plant green foliage prior to harvesting. Apply when the potato plant begin natural senescence.

**Mixing:** A final spray volume of 20 gallons per acre is recommended to ensure complete coverage of the foliage. The minimum recommended dilution is 4.0 gallons of **FL-AN140F** in the final spray volume of 20 gal (20% V/V). Use 6.5 gallons of **FL-AN140F** in 20 gal (32.5% V/V) for dense foliage use.

**Application:** Apply using a broadcast sprayer.

## Sucker Control

- **Tobacco sucker control agent for use on flue-cured tobacco.**

**Usage:** **FL-AN140F** is recommended for control of the tobacco plant suckers. The first application should occur prior to topping, when 50% – 60% of the plants have a visible button. Use during topping to remove any suckers that are greater than 1 inch in size. Repeat treatment in three to five days after the initial application and in five to seven days thereafter as needed.

**Equipment:** Use a three nozzle (TG3-TG5-TG3) per row or equivalence sprayer operating at a low pressure (20 to 25 psi). Nozzle selection, pressure, and delivery volume are critical for proper droplet size, which leads to good stalk rundown and coverage.

**Mixing:** A final spray volume of 50 gallons per acre is recommended to ensure complete coverage. Dilute 0.75 – 1.0 gallons of **FL-AN140F** to a final spray volume of 50 gallons (1.5% - 2% V/V).

**Application:** Coverage of leaf axils and stalk rundown are essential for proper contact. To reduce the risk of leaf burn, apply product when humidity is low and leaf axils are fully exposed (10 a.m. - 6 p.m. on sunny days). Do not apply if the plants are wilted and temperature exceeds 90°F, wet with rain or heavy dew, severely stressed by drought, or during windy conditions causing turnover the tobacco leaf.

- **Trees and Vines Sucker Control**

**Usage:** **FL-AN140F** is recommended to control tender basal growth on woody trees, foliage growth on vines and excessive cane growth in brambles. Apply to unwanted vegetative parts before suckers become hardened and woody. For use on nut trees such as Almond, Beech Nut, Brazil Nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (Hazelnut), Hickory Nut, Macadamia Nut (bush nut), Pecan, Pistachio, Walnut (black and English)

**Mixing:** Dilute 1 pint of **FL-AN140F** to a final spray volume of 1 gallon (13% V/V).

**Application:** Spray to completely wet and run off undesired foliage. Do not spray on desired plant parts. **FL-AN140F** is a non-select herbicide and will kill green leafy tissue in both weeds and crops. Best results are achieved in warm/hot weather with sunshine with temperatures above 60° F.

## Weed Control

- **Row Middles**

**Usage:** **FL-AN140F** is a non-selective herbicide, use only on undesired weeds and grasses. Do not spray on desired plants. Weeds should be growing vigorously and must not be covered with soil or heavy dew.

**Equipment:** Hand-held ultra-low volume controlled droplet applicators (CDA units), directed and Shielded Sprayers and spray nozzle type or configuration to prevent spray contact on the foliage or green stems or bark. Do not use boomless jets or misting-machines.

**Mixing:** A final spray volume of 50 gallons per acre is recommended to ensure complete coverage. Dilution 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. Add 3 – 6.5 gals of **FL-AN140F** per 50 gal of final spray volume (6% - 13% V/V) in the spray tank and mix to get even mixing. Use only clean water free from clay, silt and algae as these will tend to clog the spray nozzles. Water collected from roofs, bore water, dam water and water from creeks may be used provided it does not contain any sediment. Refer to the rate table #1 for the proper dilution needed.

**Application:** Direct shielded spray applications to area between plastic mulch strips and staked crops. Full coverage of the weeds leafy tissue is critical for control. Spray solutions only when weed surfaces are dry. Repeat treatment as necessary to obtain the desired control or suppression of weeds from newly germinated weed seeds and regrowth from roots or stems.

- **Ornamental & Nursery and Orchard Crops**

**Usage:** **FL-AN140F** is a non-selective herbicide recommended for weed control in seedbeds or for site preparation in non-crop sites. Apply prior to emergence of plants from seed, Perennial Rootstocks, Corms and Bulbs. Ideal for nursery and orchards, where weed control between rows is desired. For spot treatments in crop and pasture situations. Do not apply if desired new growth or after crop emerges from soil or damage will occur.

**Equipment:** Use directed and Shielded Sprayers. Select nozzle/pressure combination that deliver large coarse droplets (solid cones or flat fans) and avoid combinations that generate fine particles or mist.

**Mixing:** Dilute 1 pint of **FL-AN140F** to a final spray volume of 1 gallon (13% V/V).

**Application:** Apply to control weeds in seedbeds and growth sites prior to emergence of desirable plants. Apply around trees, shrubs, turfgrasses or desirable vegetation making sure avoid material contact with foliage and green bark. Repeat applications may be necessary. Reseeding or transplanting can occur in treated areas as soon as desirable levels of weed control are obtained.

## **Insect Control** *(Not Approved For Use In California)*

- **Usage:** **FL-AN140F** is Used For Control of Adelgids, Aphids, Earwigs, Grasshoppers, Lacebugs, Mites, Plantbugs, Psyllids, Sawfly Larvae, Scales, Tent Caterpillars, Thrips, Whiteflies and Woolly Aphids (**Not Approved For Use In California**).
- .
- **Equipment:** Hand-held ultra-low volume controlled droplet applicators (CDA units), directed and shielded sprayers and spray nozzle type or configuration to prevent spray contact on the foliage or green



stems or bark. Select nozzle / pressure combination that deliver large coarse droplets (solid cones or flat fans) and avoid combinations that generate fine particles or mist.

- **Mixing:** Dilute **FL-AN140F** using Rate Table # 2 below to determine the appropriate use rate for your pest situation.
- **Application:** Apply spray directly to the soil surface to the area between plastic mulch strips and row middles of staked crops, row crops, and areas around the base of trees and vine crops in orchards, to control listed pests. Make applications when insects first appear and are in their early larval stages. Repeat spray applications every 7 days or as needed.

**RATE TABLE # 2**

Final Spray Volume (gallons)	Amount of <b>FL-AN140F</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	1.6 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>Insect Pressure</u>	<u>Spray Solution (% V/V)</u>
Low	6 to 8%
Medium	8 to 10%
High	10 to 13%

## STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store container in cool place until used. Store at temperatures above 32° F.

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

### **Container Handling:**

**Non-refillable Containers:** Do not reuse or refill this container. Offer for recycling if available.

### **Clean container promptly after emptying (liquid formulations).**

**Non-refillable container equal to or less than 5 gals:** Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank 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 application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

**Non-refillable container greater than 5 gals:** Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

**Refillable container 5 gals to bulk:** Refill this container with this pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. . Repeat this rinsing procedure two more times. Dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

For non-medical emergencies or spills, see **FL-AN140F** SDS or call CHEMTREC at 800-424-9300.

**Terms and Conditions of Use:**

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

**Warranty and Disclaimer Notice:**

To the extent consistent with applicable law, Emery Oleochemicals 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.

**Inherent Risks of Use:**

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to the label instructions (including adverse conditions noted on the label, such as unfavorable temperatures, wind, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Emery Oleochemicals LLC or the seller. All such risks shall be assumed by the buyer.

**Limitation of Remedies:**

The exclusive remedy for losses or damages resulting from the use of this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Emery Oleochemicals LLC's election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought,  
or
2. Replacement of amount of product used.

To the extent allowable by state law, Emery Oleochemicals LLC shall not be liable for losses or damages resulting from handling or use of this product unless Emery Oleochemicals LLC is promptly notified of such loss or damage in writing. In no case shall Emery Oleochemicals LLC be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Emery Oleochemicals LLC or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

**Manufactured by:**

**Emery Oleochemicals LLC**  
**4900 Este Avenue**  
**Cincinnati, OH 45232**  
**513-762-2500**  
**www.Emeryoleo.com**

**SUBLABEL B: FOR RESIDENTIAL USE**  
**FOR CONTACT SPRAY CONTROL OR BURNDOWN OF WEEDS AND GRASSES**  
**FOR HOMES AND GARDENS**

**FL-AN140F**  
 (Alternate Brand Name “EMERION™ W 40 SL”)  
**Non-selective Herbicide**

**Active ingredient:**

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

FL-AN140F contains 3.3 lbs. of ammonium nonanoate per US gallon

**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.)"**

<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>EMERGENCY NUMBER</b>	
<b>FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE, CALL THE NATIONAL POISON CONTROL CENTER 1-800-222-1222.</b>	
Have the product container or label with you when calling a poison control center or doctor.	

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

EPA Reg. No. 87663-11

EPA Establishment No. 87663-OH-001, 72038-DE-001, 06574-KY-001, 064784-OK-001, 75822-TN-001,  
 70299-CT-001, 082521-GA-001

Lot No. xxxxxxxx

Net Contents: 3,4,16 & 32 fl oz, 1, 2.5 & 5 gals

## 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, using tobacco or using toilet. Remove and wash contaminated clothing before reuse.

### ENVIRONMENTAL HAZARDS

**For terrestrial uses:** This pesticide is toxic to fish and aquatic invertebrates. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, or gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

## 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.**

### METHODS OF USE AND GENERAL APPLICATION INSTRUCTIONS

#### General Instructions:

**FL-AN140F** 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-AN140F** 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-AN140F** is non-volatile and water soluble pesticide for foliar application with 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-AN140F** diluted with water. **FL-AN140F** effect on plant tissue may be more rapid in warm weather than in cold conditions. However, weed control is normally unaffected by temperature.

**FL-AN140F** herbicide is a fatty acid 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-AN140F** 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-AN140F** does not provide any residual weed control in soil to affect germinating weed seeds.

### **Mixing and Application Instructions:**

#### **Mixing:**

Fill hand held sprayer tank with half the required amount of water, add the full amount of **FL-AN140F** to be used (see Dosage and Dilution Rate Table below), then fill the sprayer tank with the remainder of the water required for the desired final concentration and mix well. Since **FL-AN140F** is completely soluble in water and when uniformly dispersed in water, continuous mixing or agitation is not required. A 13% 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 rate 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 (lower dilution) required for rapid action. See required concentration for variously sized weeds and grasses in Dosage and Application Rates Section. Hard to suppress weeds (deep-rooted perennials and some grasses) may require one or more later applications for complete control.**

#### **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.

#### **Application with 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.

**NOTE:** In areas of hard water, the final mixture may appear milky. This condition does not change the effectiveness of the treatment. A clearly visible foam will appear on the leaves as the plants are sprayed. Drift onto desirable plants should be avoided; however, this is usually not a serious problem due to the need for thorough leaf coverage for control of weeds. Repeat application 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-AN140F** spray solutions only when weed surfaces are dry.

The rate table presents the suggested percent volume/volume solutions of **FL-AN140F** to use for application as follows:

- Use a 6 to 8 % V/V (Volume/Volume) **FL-AN140F** 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-AN140F** 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-AN140F** spray solution for weeds over 4 inch height and for hard to control weeds.
- A 15% V/V **FL-AN140F** 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-AN140F</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	1.6 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 4 inches	8 to 10%
Above 4 inches	10 to 13%

## Use Methods

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

- A. **Vegetative Burndown:** Broadcast spray for weed control for seedbed preparation to control weeds prior to seeding or transplanting. Spot sprays may be used in crops, ornamentals, pastures and turf.
- B. **Directed Sprays:** Spray nozzle type or configuration for directed spray to prevent spray contact on the foliage or green stems or bark. Directed spray applications to area between plastic mulch strips and staked crops for weed control.
- C. **Preemergence Spray Before Seeds Germinate and Emerge, and Before Perennial Plants, Tubers, Bulbs or Seed Pieces Sprout and Emerge:** Make application to weeds before desired new growth emerges.
- D. **Dormant or Post Harvest Spray:** Apply after desirable annual plants are removed to kill weeds and residual green growth of the plants. Apply to dormant crops such as turf.
- E. **Sucker Control, Pruning and Trimming:** Direct sprays to kill small tender basal suckers in fruit trees, nut trees and on vines (grapes).
- F. **Desiccation and Harvest Aid:** Apply only when root, tuber or bulb vegetable is ready to harvest and green leaves or weeds interfere with harvest. Spray over the plants and weeds for rapid desiccation of green plant growth to facilitate harvest.
- G. **Building and Premise Uses:** Apply to weeds in walkways, driveways, parking areas and around buildings or structures. Spot sprays may be applied to open areas and rights-of-ways.



## PESTS

### I. Weeds controlled or suppressed by FL-AN140F:

#### COMMON NAMES

#### TAXONOMIC NAMES

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##### Broadleaf Weeds:

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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</i> spp.
Lambsquarters, common	<i>Chenopodium album</i>
Liverwort	<i>Machantia</i> spp.
Marestail or Horseweed rosettes	<i>Conyza canadensis</i>
Morningglory, annual	<i>Ipomoea</i> spp.
Moss	Bryophyta
Mustards	<i>Brassica</i> spp.
Oxalis or Woodsorrel	<i>Oxalis stricta</i>
Pansy, wild	<i>Viola tricolor</i>
Plantain	<i>Plantago</i> spp.
Pigweed, smooth and redroot	<i>Amaranthus</i> spp.
Mallow, roundleaved	<i>Malva</i> spp.
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>

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##### Grass and Other Weeds:

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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-AN140F for control or suppression

## Garden Uses and Methods of Application\*

Crop Group	Crops	Use Methods
Root Tuber and Perennial Vegetables	Asparagus, artichoke, beet, carrot, ginger, horseradish, parsnip, potato, radish, rutabaga, sweet potato, turnip and yam <sup>1</sup> Harvest Aid and Desiccation approved for root and tuber crops in this crop group	A, B, C, D, F <sup>1</sup>
Bulb vegetables	Garlic, leek, onion and shallot	A, B, C, F
Leafy Vegetables	Celery, cilantro, cress, endive, fennel, lettuce, parsley, rhubarb, spinach, Swiss chard	A, B
Cole or Brassica Crops	Broccoli, Brussels sprouts, cabbage, cauliflower, collards, kale, kohlrabi, mustard and turnip greens	A, B, C
Legume Vegetables	Beans (Phaseolus spp.: black, green, kidney, lima, mung, navy, pinto, snap and wax), (Vigna spp.: black-eyed, Chinese longbean, cowpea and southern pea), peas (Pisum spp.: garden, green, sugar and snow peas), soybeans	A, B, C
Fruiting Vegetables	Eggplant, okra, pepper, (bell, chili, sweet), pimento, and tomato	A, B, C
Cucurbits and Melons	Cucumber, gourd, muskmelon, cantaloupe, pumpkin, squash, and watermelon	A, B, C
Citrus	Grapefruit, kumquat, lemon, lime, orange, tangerine and tangelo	A, B
Pome Fruit	Apple, crabapple, pear and quince	A, B, E
Stone fruit	Apricot, cherry, nectarine, peach, plum and prune	A, B, E
Small Fruit and Grapes	Blackberry, blueberry, boysenberry, cranberry, currant, dewberry, elderberry, grape (all types), loganberry, olallieberry, raspberry and strawberry	A, B, C, E
Nuts	Almond, brazil nut, chestnut, filbert, macadamia, pecan, pistachio and walnut	A, B, E
Tropical and Other Fruit	Avocado, banana, coconut, date, fig, guava, kiwi, mango, olive, persimmon, papaya and banana	A, B, E
Forages and Pastures (Forage or Seeds)	Alfalfa, clovers, trefoil, vetch, bromegrass, fescue, bluegrass, lespedeza, ryegrass, sudangrass, timothy, range grasses. and crops grown for livestock feed	A, C, D
Herbs and Spices	Anise, basil, Caraway, chive, cumin, curry, dill, fennel, oregano, mints, rosemary, sage, savory, sweet bay, tarragon, thyme and wintergreen	A, B, C, D

\* Refer to the General Instructions section for Use Methods description

## Buildings and Premise Uses and Methods of Application\*

Group	Crops	Use Methods
Turf, Flowers, Container, Bedding and Landscape Plants	Turfgrass (maintenance, sod or seed production), bedding plants, flowers and ornamental plants	A, B, C, D, E, F
Trees and Shrubs	Landscape trees and evergreen shrubs,	A, B, E
Greenhouse and Indoor Use	All crops, plants and structures	A, B, C, G
Buildings, Driveways, Walkways and Other Structures	Benches, decks, equipment, floors, roofs, wall, walks and evaporative cooling pads	A, B, G G

\* Refer to the General Instructions section for Use Methods description

### Use Information

**Usage:** FL-AN140F is a non-selective herbicide recommended for weed control in gardens, seedbeds, flower beds, for site preparation, and around the home. Do not apply if desired new growth or after crop emerges from soil or damage will occur. Do not spray on desired plants. Weeds should be growing vigorously and must not be covered with soil or heavy dew. Apply prior to emergence of plants from seed, Perennial Rootstocks, Corms and Bulbs.

**Equipment:** Hand-held ultra-low volume controlled droplet applicators (CDA units), directed and shielded sprayers and spray nozzle type or configuration to prevent spray contact on the foliage or green

stems or bark. Select nozzle / pressure combination that deliver large coarse droplets (solid cones or flat fans) and avoid combinations that generate fine particles or mist.

**Mixing:** Dilute 1 pint of **FL-AN140F** to a final spray volume of 1 gallon (13% V/V).

**Application:** Apply to control weeds in seedbeds and growth sites prior to emergence of desirable plants. Apply around trees, shrubs, turfgrasses or desirable vegetation making sure avoid material contact with foliage and green bark. Repeat applications may be necessary. Reseeding or transplanting can occur in treated areas within two days.

### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store container in cool place until used. Store at temperatures above 32° F.

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

#### **Container Handling:**

**If empty: Non-refillable** - Do not reuse or refill this container. Offer for recycling if available.

**If partly filled:** Call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain.

For non-medical emergencies or spills, see **FL-AN140F** SDS or call CHEMTREC at 800-424-9300.

#### **Terms and Conditions of Use:**

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

#### **Warranty and Disclaimer Notice:**

To the extent consistent with applicable law, Emery Oleochemicals 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.

#### **Inherent Risks of Use:**

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to the label instructions (including adverse conditions noted on the label, such as unfavorable temperatures, wind, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Emery Oleochemicals LLC or the seller. All such risks shall be assumed by the buyer.

**Limitation of Remedies:**

The exclusive remedy for losses or damages resulting from the use of this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Emery Oleochemicals LLC's election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought,  
or
2. Replacement of amount of product used.

To the extent allowable by state law, Emery Oleochemicals LLC shall not be liable for losses or damages resulting from handling or use of this product unless Emery Oleochemicals LLC is promptly notified of such loss or damage in writing. In no case shall Emery Oleochemicals LLC be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Emery Oleochemicals LLC or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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