

**ACTIVE INGREDIENT:**

Proflamime: (N <sup>3</sup> , N <sup>3</sup> -Di- $\eta$ -propyl-2,4-dinitro-6-(trifluoromethyl)- $\eta$ -phenyl)endiamine.....	0.29%
<b>INERT INGREDIENTS:</b> .....	99.71%
<b>Total</b> .....	<b>100.00%</b>

For selective preemergence control of grass and broadleaf weeds in:  
 • Established turf grasses (excluding golf course putting greens and lawns)  
 • Landscape ornamentals (including established perennials and wildflower plantings)

Made smart with  
*N-Fate*

## 15-0-0

**GUARANTEED FERTILIZER ANALYSIS**

Total Nitrogen (N).....	15.00%
7.50% Urea Nitrogen*	
7.50% Ammoniacal Nitrogen	
Sulfur (S).....	8.50%
8.50% Combined Sulfur	
Derived from: Urea, Ammonium Sulfate	
Chlorine (Cl) Max. ....	0.10%

## KEEP OUT OF REACH OF CHILDREN CAUTION

See the following section, Precautionary Statements, Hazards to Humans and Domestic Animals, for additional information.

**ENVIRONMENTAL HAZARDS**  
 This product has low solubility in water. At the limits of solubility, this product is not toxic to fish. However, at concentrations above the level of water solubility, it may be toxic to fish. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. Do not contaminate water when disposing of equipment washwaters.

**DIRECTIONS FOR USE**  
 It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. This product is a selective preemergence herbicide that provides residual control of many grass and broadleaf weeds in:  
 • Established turf grasses (excluding golf course putting greens) and lawns  
 • Landscape ornamentals  
 • Established perennials and wildflower plantings  
 This product controls susceptible weeds by inhibiting weed seeds germination and root development. Most effective weed control will be obtained when Proflamime is activated by at least 0.5 inches of rainfall or irrigation, or with shallow (1-2 inches) incorporation, prior to weed seed germination and within 14 days following application.  
 Not for use on plants being grown (1) for sale or other commercial use, (2) for commercial seed production, or (3) for research purposes. For use on plants intended for aesthetic purposes or climatic modification and being grown in ornamental gardens or parks, or on golf courses or lawns and grounds. Do not graze or feed livestock forage cut from areas treated with this product. Do not apply this product through any type of irrigation system. Do not apply aerially. Do not apply to golf course putting greens.  
**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.**

**WEEDS CONTROLLED**

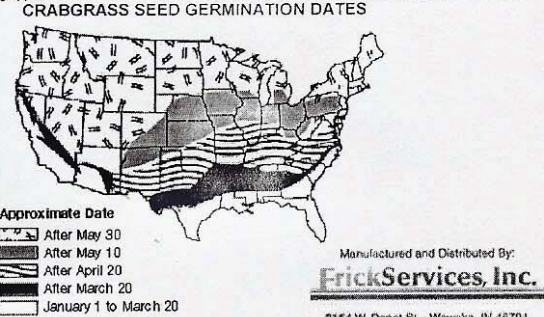
When used in accordance with this label, this product will provide control of the following weeds:

Barnyardgrass	Foxtails, Annual	Kochia	Rescuegrass <sup>3</sup>
Bluegrass, Annual (Poa annua)	Goosegrass <sup>1</sup>	Lambsquarter, Common	Shepherd's Purse <sup>2</sup>
Chickweed, Common	Henbit	Lovegrass	Signalgrass, Broadleaf
Chickweed, Mouse ear (from seed)	Itchgrass	Panicum(Texas, Fall, Brown Top)	Sprangletop
Crabgrass(large, smooth)	Johnsongrass(from seed)	Pigweed	Spurge, Prostrate
Crowfootgrass	Junglerice	Purslane, Common	Witchgrass
Cupgrass, Woolly	Knotweed	Pusley, Florida	Woodsorrel Yellow (from seed)

- In many areas a single application of 228 to 517 lb/acre of this product will control the above listed weeds and goosegrass. However, under heavy goosegrass pressure and/or an extended growing season, most effective weed control can be obtained by making an initial application of 228 to 345 lb/acre followed after 60 to 90 days by a second application at doses that would not exceed those given in the Maximum Annual Rate Table. Do not exceed the maximum rate for turf grass species listed in the Maximum Annual Rate Table above.
- Applications for this weed should be made in late summer, fall or winter prior to germination.
- Suppression only. Sequential applications may be made so long as the total amount of product applied does not exceed the maximum annual application rates recommended for each turf species. All applications must be made prior to germination of weed seeds.

**APPLICATION DIRECTIONS**  
 Apply uniformly through suitable, calibrated commercial application equipment.

**ESTABLISHED TURF**  
 This product is a selective pre-emergence herbicide that, when properly applied, will control certain grass and broadleaf weeds in established turf grass and lawns. The maximum amount of this product that may be applied per year is given for each turf grass species in the Maximum Annual Rates section of this label. Most effective weed control in turf grasses will be obtained when this product is activated by at least 0.5 inch of rainfall or irrigation prior to weed seed germination and within 14 days following application. See the information below for approximate crabgrass seed germination dates.



#021504

**USE PRECAUTIONS:** The following precautions apply to the use of this product in turf grasses and lawns: (1) Application of this product may thin emerged annual bluegrass and newly overseeded grasses. (2) Do not apply to overseeded turf within 60 days after seeding or until after the second mowing, whichever is longer. Injury to desirable seedlings is likely if this product is applied before seeding secondary roots are in the second inch of soil, not thatch plus soil. (3) Do not cut (harvest) treated sod before 120 days after application. Do not apply to newly set sod until the following year. (4) Application of this product to turf stressed by drought, low fertility, or pest damage may result in turf injury. (5) Disturbing the herbicide barrier with cultural practices such as diking may result in reduced weed control. (6) Do not apply this product to putting greens or areas where dichondra, colonial bentgrass, velvet bentgrass or annual bluegrass (*Poa annua*) are desirable species.

**RATES OF APPLICATION**

This product may be applied as a single application or in sequential applications to control weeds germinating throughout the year. All applications must be made prior to germination of the target weeds. This product will not control established weeds. Maximum use rate selection should be based on turf species. The length of time of residual weed control provided by this product is related to the rate applied.

**MAXIMUM ANNUAL RATES**

This product is recommended for use on the turf grass species listed in the following table. Do not exceed the maximum yearly rate as given in the following table:

Turf Species	Maximum Application Rate per Calendar Year <sup>1</sup>	
	lb Pro Ap Cavalcade 0.29% Plus Fertilizer / acre	lb AI per Acre
Bermudagrass <sup>2</sup> Bahia grass Centipede grass Seashore Paspalum St. Augustine grass Tall Fescue (including turf-type) Zoysia	517 lbs	1.5
Buffalograss Kentucky Bluegrass Perennial Ryegrass	345 lbs	1.0
Creeping Red Fescue	259 lbs	0.75
Creeping Bentgrass	224 lbs	0.65

- These are the maximum rates per calendar year by species limitations.
- May be used on newly sprigged or plugged Bermudagrass at rates not to exceed 172 lbs./A. Newly sprigged or plugged Bermudagrass stolon rooting may be temporarily retarded. Suppression only of Foxtail, Goosegrass, and Rescuegrass due to reduced product rates used in sprigging situations.
- Do not apply more than 517 lbs. of this product per calendar year.
- Use higher rates of this product to achieve higher levels of fertility and longer periods of weed control for each turf type, but do not exceed the maximum application rates specified in the Maximum Annual Rates Table.

**SUGGESTED SPREADER SETTINGS\***

Spreader	Recommended Rates in lb per 1,000 sq ft	
	3 lb	4 lb
Perma-Green high gear	3.75	4.25
Perma-Green low gear	3.25	3.75
Lesco #	13	15
Lesco letter	D	F
Cyclone/Spyker	3.5	4.5
Vicon 4.5 mph	20	28
Lely 4.5 mph	3.75	4.5

\*ATTENTION: These settings are only approximate. Age, condition of the spreader and operator speed can cause wide variation.

**WHEN TO APPLY AFTER OVERSEEDING TURF**

Do not apply to overseeded turf within 60 days after seeding or until after the second mowing, whichever is longer. Injury to desirable seedlings is likely if this product is applied before seeding secondary roots are in the second inch of soil, not thatch plus soil.

**WHEN TO OVERSEED AFTER APPLICATION**

This product will inhibit the germination of turf species if overseeded too soon after application. Follow rates and intervals in the following table for best overseeding/ reseeded results.

Cavalcade 0.29% Plus Fertilizer Rate (lb/Acre)	Product	ai	Months Before Overseeding		
			North	Transition	South
172		.50	4	4	4
224		.66	5	4	4
259		.74	6	5	5
276		.80	-	6	6
345		1.00	-	7	7
393		1.14	-	-	9
448		1.30	-	-	10
517		1.50	-	-	12

**STORAGE AND DISPOSAL**

**STORAGE:** Store this product in its original container in a dry, cool, secured area. Do not contaminate water, foodstuffs, feed, or seed by storage or disposal. **PRODUCT DISPOSAL:** As a responsible environmental practice, where possible, it is recommended that all of the contents of the bag be used, carefully following label directions and precautions. **IF EMPTY:** Do not reuse this bag. Place in trash or offer for recycling if available. **IF PARTLY FILLED:** Call you local waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain. **SPILL:** In case of spill, sweep up and dispose of material according to Product disposal directions above.

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION:** Causes moderate eye injury (irritation). Harmful if inhaled or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling. Prolonged or frequently repeated skin contact while handling the material may cause allergic reactions in some individuals.

**FIRST AID**

**IF SWALLOWED:** Call a Poison Control Center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

**IF INHALED:** Move person to fresh air, if person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible. Call a poison control center, or doctor, or when going for treatment, you may also call 1-800-858-7378 for emergency medical treatment advice. See side panel for additional Precautionary Statements.

**CONDITIONS OF SALE AND WARRANTY**

The Directions for Use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application all of which are beyond the control of Frick Services, Inc. or the Seller. All such risks shall be assumed by the Buyer. Frick Services, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use subject to the inherent risks referred to above. Frick Services, Inc. makes no other express or implied Warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall Frick Services, Inc. or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product. Frick Services, Inc. and the Seller offer this product, and the Buyer and user accept it, subject to the foregoing Conditions of Sale and Warranty, which may be varied only by agreement in writing signed by a duly authorized representative of Frick Services, Inc.

Pro Ap is a trademark of Frick Services, Inc. Cavalcade is a trademark of Sipcam Agro USA, Inc.

EPA REG. NO. 60063-28-040249  
 EPA EST. NO. 040249-IN-010  
**Net Weight: 50 lb (22.68 kg)**





Trade Name: Pro Ap Cavalcade 0.20% Plus Fertilizer  
Registration No: 60063-18-040249

DATE ISSUED: 1/12/2008  
SUPERSEDES: NA

M02-006

### SECTION 10 PHYSICAL AND CHEMICAL STABILITY AND REACTIVITY

**Stability (Normal Conditions):** Stable  
**Conditions to Avoid:** Extremely high temperatures. Store separately from acids and basis.  
**Incompatibility (Material to Avoid):** Strong oxidizing agents. Prolonged contact may cause oxidation of unprotected metals.  
**Hazardous Decomposition Products:** During extremely high temperature fire conditions, the product may reach melting point and decompose to release NH<sub>3</sub>, SO<sub>x</sub>, PO<sub>x</sub> or CN.  
**Hazardous Polymerization:** Will not occur

### SECTION 11 TOXICOLOGY INFORMATION

	<u>Oral LD50 (rat)</u>	<u>Dermal LD50 (rat)</u>	<u>Aquatic Fish 96-hour</u>	<u>Aquatic (other)</u>
Prodiamine	>5,000 mg/kg	>2,000 mg/kg	none listed	none listed
Urea	14,300 mg/kg	none listed	> 9,100 mg/L	> 10,000 mg/L (daphnia)
Ammonium Sulfate	640-4,250 mg/kg	> 2,000 mg/kg	> 13.6-159.8 mg total NH <sub>3</sub> /L	> 27.0 mg/total NH <sub>3</sub> /L (daphnia)

All toxicity data from TFI Product Testing Results.

### SECTION 12 ENVIRONMENTAL ECOLOGICAL INFORMATION

None listed

### SECTION 13 WASTE DISPOSAL CONSIDERATIONS

**Waste disposal procedures:** Pick up with shovel and broom and use as a fertilizer by applying to soil using good agricultural and soil management. If disposal is necessary, follow all applicable local, state and federal regulations.

### SECTION 14 TRANSPORTATION INFORMATION

<b>Shipping name:</b>	Not regulated by DOT	<b>C.A.S. Number:</b>	See "Ingredients"
<b>Hazard Class:</b>	None	<b>D.O.T. Number:</b>	None
<b>Reportable Quantity (RQ):</b>	None	<b>Haz. Waste No.:</b>	None
<b>Labels Required:</b>	None	<b>EPA Regist No.:</b>	None
<b>Placard:</b>	None		

### SECTION 15 REGULATORY INFORMATION

**Carcinogenicity:** by IARC?: Yes ( ) No (X) by NTP?: Yes ( ) No (X)  
Not on the SARA 302 list of reportable quantities.

### SECTION 16 OTHER INFORMATION

<b>Flash Point (Test Method):</b>	Non flammable	<b>Flammable Limits (% BY VOLUME)</b>	<b>LOWER</b>	<b>UPPER</b>
<b>Autoignition Temperature:</b>	Not applicable		N/A	N/A

The information contained herein is based on available data. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof; and you should make your investigation to determine safety for the use you contemplate. Frick Services, Inc. makes no warranty of merchantability of fitness for a particular use, nor is there any other express or implied warranty except as may be specifically provided otherwise on product.

Frick Services, Inc. assumes no responsibility or liability for any incidental or consequential damages whether related to personal injury or property damage, to vendees, users or third parties, caused by the material, and Frick Services, Inc.'s responsibility is limited to replacement of, or repayment of, the purchase price for the material(s) with respect to which any damages are claimed. All vendees or users assume all risk associated with the use of the material(s).



Trade Name: Pro Ap Professional Turf Fertilizer  
 Registration No: None

DATE ISSUED: 1/12/2008  
 SUPERSEDES: NA

M01-024

## SECTION 1 CHEMICAL PRODUCT AND COMPANY INFORMATION

<b>Manufacturer or Formulator:</b>	Frick Services, Inc. 3154 W. Depot Street Wawaka, IN 46794	<b>Product Name:</b>	Pro Ap Professional Turf Fertilizer
<b>Emergency Phone:</b>	1-800-552-1754	<b>Common Name:</b>	Pro Ap Professional Turf Fertilizer
		<b>Chemical Type:</b>	Inorganic Chemical Fertilizer

## SECTION 2 COMPOSITION INFORMATION

Chemical Name and Synonyms	C.A.S. No.	Chemical Formula	WT% Hazardous	TLV	PEL
None listed					
			<b>Non-Hazardous</b>		
Blend of the following non-hazardous ingredients:			100		Not available
Ammonium Sulfate	7783-20-2	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>		15 mg/m <sup>3</sup> (dust)	

## SECTION 3 HAZARDS IDENTIFICATION

**Ingestion:** Minimal hazard under normal conditions and use. Ingestion of large quantities may cause gastrointestinal discomfort, vomiting, weakness or other medically related problems.

**Inhalation:** Dusty conditions may cause mechanical aggravation to respiratory mucous membranes.

**Eye Contact:** Dust from this product may cause particulate discomfort to eyes.

**Skin Absorption:** Not normally absorbed through the skin.

**Skin Contact:** Slight dermal abrasion is possible with prolonged contact, especially around cuffs and collars.

**Effects of Overdose:** Ingestion of large doses may cause diarrhea, nausea, abdominal cramps or formation of methemoglobinemia. Seek medical attention.

## SECTION 4 FIRST AID MEASURES

**Ingestion:** If large amount is ingested, give 2-3 glasses of water and induce vomiting. Seek medical attention.

**Inhalation:** Remove to fresh air. Seek medical attention if condition persists.

**Eyes:** Flush eyes with running water for at least 15 minutes. Seek medical attention if condition persists.

**Skin:** Wash with soap and water. Seek medical attention if condition persists.

**Note to Physician:** Consult standard literature. Treatment based on the sound judgment of the physician and the individual reactions of the patient.

## SECTION 5 FIRE FIGHTING MEASURES

**Extinguishing Media:** Use media suitable to extinguish source of fire.

**Special Fire Fighting Procedures:** Product is not combustible.

**Unusual Fire and Explosion Hazards:** During extremely high temperature fire conditions, the product may reach melting point and decompose to release NH<sub>3</sub>, SO<sub>x</sub>, PO<sub>x</sub> or CN.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Environmental Precautions:** Keep out of water supplies, lakes, ponds, streams and rivers. This product is a fertilizer and may promote algae growth.

**Steps to be taken in case material is released:** Keep from entering waterways. Sweep up material and place in suitable container for use as a fertilizer or for disposal.

## SECTION 7 HANDLING AND STORAGE

**Precautions to be taken in handling and storing:** Store in a cool, dry area. Prevent spillage and separate from strong oxidizers. Use normal safety procedures and good personal hygiene. Keep out of the reach of children.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ventilation Protection:** Adequate ventilation.

**Respiratory Protection:** Approved dust respirator when necessary.

**Protective Clothing:** Normal clean work clothing.

**Eye Protection:** In dusty conditions, safety glasses with side shields or goggles may be necessary.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Boiling Point:</b>	Not applicable	<b>Solubility in Water:</b>	Not available
<b>Density:</b>	Not available	<b>% Volatiles (by volume):</b>	Not applicable
<b>Flashpoint:</b>	Non-flammable	<b>Vapor Pressure, mm Hg:</b>	Not applicable
<b>pH:</b>	Not listed	<b>Reaction with Water:</b>	None
<b>Appearance:</b>	Multi-colored granules.		
<b>Extinguishing Media:</b>	Use media suitable to extinguish source of fire.		



Trade Name: Pro Ap Professional Turf Fertilizer  
Registration No: None

DATE ISSUED: 1/12/2008  
SUPERSEDES: NA

M01-024

**SECTION 10 STABILITY AND REACTIVITY**

**Stability (Normal Conditions):** Stable  
**Conditions to Avoid:** Extremely high temperatures.  
**Incompatibility (Material to Avoid):** Strong oxidizing agents. Prolonged contact may cause oxidation of unprotected metals.  
**Hazardous Decomposition Products:** During extremely high temperature fire conditions, the product may reach melting point and decompose to release NH<sub>3</sub>, SO<sub>x</sub>, PO<sub>x</sub> or CN.  
**Hazardous Polymerization:** Will not occur

**SECTION 11 TOXICOLOGY INFORMATION**

	<u>Oral LD50 (rat)</u>	<u>Dermal LD50 (rat)</u>	<u>Aquatic Fish 96-hour</u>	<u>Aquatic (other)</u>
Ammonium Sulfate	640-4,250 mg/kg	> 2,000 mg/kg	> 13.6-159.8 mg total NH <sub>3</sub> /L	> 27.0 mg/total NH <sub>3</sub> /L (daphnia)

All toxicity data from TFI Product Testing Results.

**SECTION 12 ECOLOGICAL INFORMATION**

None listed

**SECTION 13 DISPOSAL CONSIDERATIONS**

**Waste disposal procedures:** Pick up with shovel and broom and use as a fertilizer by applying to soil using good agricultural and soil management. If disposal is necessary, follow all applicable local, state and federal regulations.

**SECTION 14 TRANSPORTATION INFORMATION**

<b>Shipping name:</b>	Not regulated by DOT	<b>C.A.S. Number:</b>	See "Ingredients"
<b>Hazard Class:</b>	None	<b>D.O.T. Number:</b>	None
<b>Reportable Quantity (RQ):</b>	None	<b>Haz Waste No:</b>	None
<b>Labels Required:</b>	None	<b>EPA Regist No:</b>	None
<b>Placard:</b>	None		

**SECTION 15 REGULATORY INFORMATION**

**Carcinogenicity:** by IARC?: Yes ( ) No (X)      by NTP?: Yes ( ) No (X)  
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**SECTION 16 OTHER INFORMATION**

<b>Flash Point (Test Method):</b>	Non-flammable	<b>Flammable Limits</b>	<b>LOWER</b>	<b>UPPER</b>
<b>Autoignition Temperature:</b>	Not applicable	(% BY VOLUME)	N/A	N/A

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Frick Services, Inc. assumes no responsibility or liability for any incidental or consequential damages whether related to personal injury or property damage, to vendees, users or third parties, caused by the material; and Frick Services, Inc.'s responsibility is limited to replacement of, or repayment of, the purchase price for the material(s) with respect to which any damages are claimed. All vendees or users assume all risk associated with the use of the material(s).



**ACTIVE INGREDIENT:**

Proflamime: (N <sup>3</sup> , N <sup>3</sup> -Di-n-propyl-2,4-dinitro-6-(trifluoromethyl)-m-phenylenediamine.....	0.29%
<b>INERT INGREDIENTS:</b> .....	99.71%
<b>Total</b> .....	100.00%

For selective preemergence control of grass and broadleaf weeds in:  
 • Established turf grasses (excluding golf course putting greens and lawns)  
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Made smart with  
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**GUARANTEED FERTILIZER ANALYSIS**

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7.50% Ammoniacal Nitrogen	
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8.50% Combined Sulfur	
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**DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. This product is a selective preemergence herbicide that provides residual control of many grass and broadleaf weeds in:

- Established turf grasses (excluding golf course putting greens) and lawns
- Landscape ornamentals
- Established perennials and wildflower plantings

This product controls susceptible weeds by inhibiting weed seeds germination and root development. Most effective weed control will be obtained when Proflamime is activated by at least 0.5 inches of rainfall or irrigation, or with shallow (1-2 inches) incorporation, prior to weed seed germination and within 14 days following application.

Not for use on plants being grown (1) for sale or other commercial use, (2) for commercial seed production, or (3) for research purposes. For use on plants intended for aesthetic purposes or climatic modification and being grown in ornamental gardens or parks, or on golf courses or lawns and grounds. Do not graze or feed livestock forage cut from areas treated with this product. Do not apply this product through any type of irrigation system. Do not apply aerially. Do not apply to golf course putting greens.

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.**

**WEEDS CONTROLLED**

When used in accordance with this label, this product will provide control of the following weeds:

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Crowfootgrass	Junglerice	Purslane, Common	Witchgrass
Cupgrass, Woolly	Knottweed	Pusley, Florida	Woodsorrel Yellow (from seed)

1. In many areas a single application of 228 to 517 lb/acre of this product will control the above listed weeds and goosegrass. However, under heavy goosegrass pressure and/or an extended growing season, most effective weed control can be obtained by making an initial application of 228 to 345 lb/acre followed after 60 to 90 days by a second application at doses that would not exceed those given in the Maximum Annual Rate Table. Do not exceed the maximum rate for turf grass species listed in the Maximum Annual Rate Table above.
2. Applications for this weed should be made in late summer, fall or winter prior to germination.
3. Suppression only. Sequential applications may be made so long as the total amount of product applied does not exceed the maximum annual application rates recommended for each turf species. All applications must be made prior to germination of weed seeds.

**APPLICATION DIRECTIONS**

Apply uniformly through suitable, calibrated commercial application equipment.  
**ESTABLISHED TURF**

This product is a selective pre-emergence herbicide that, when properly applied, will control certain grass and broadleaf weeds in established turf grass and lawns. The maximum amount of this product that may be applied per year is given for each turf grass species in the Maximum Annual Rates section of this label. Most effective weed control in turf grasses will be obtained when this product is activated by at least 0.5 inch of rainfall or irrigation prior to weed seed germination and within 14 days following application. See the information below for approximate crabgrass seed germination dates.

**CRABGRASS SEED GERMINATION DATES**



- Approximate Date**
- After May 30
  - After May 10
  - After April 20
  - After March 20
  - January 1 to March 20

#021504

Manufactured and Distributed By:  
**FrickServices, Inc.**  
 3154 W. Depot St. - Wawaka, IN 46794

**USE PRECAUTIONS:** The following precautions apply to the use of this product in turf grasses and lawns: (1) Application of this product may thin emerged annual bluegrass and newly overseeded grasses. (2) Do not apply to overseeded turf within 60 days after seeding or until after the second mowing, whichever is longer. Injury to desirable seedlings is likely if this product is applied before seeding secondary roots are in the second inch of soil, not thatch plus soil. (3) Do not cut (harvest) treated sod before 120 days after application. Do not apply to newly set sod until the following year. (4) Application of this product to turf stressed by drought, low fertility, or pest damage may result in turf injury. (5) Disturbing the herbicide barrier with cultural practices such as disking may result in reduced weed control. (6) Do not apply this product to putting greens or areas where dichondra, colonial bentgrass, velvet bentgrass or annual bluegrass (*Poa annua*) are desirable species.

**RATES OF APPLICATION**

This product may be applied as a single application or in sequential applications to control weeds germinating throughout the year. All applications must be made prior to germination of the target weeds. This product will not control established weeds. Maximum use rate selection should be based on turf species. The length of time of residual weed control provided by this product is related to the rate applied.

**MAXIMUM ANNUAL RATES**

This product is recommended for use on the turf grass species listed in the following table. Do not exceed the maximum yearly rate as given in the following table:

Turf Species	Maximum Application Rate per Calendar Year <sup>1</sup>	
	lb Pro Ap Cavalcade 0.29% Plus Fertilizer / acre	lb AI per Acre
Bermudagrass <sup>2</sup>	517 lbs	1.5
Bahiagrass		
Centipedegrass		
Seashore Paspalum		
St. Augustinegrass		
Tall Fescue (including turf-type)		
Zoysia		
Buffalograss	345 lbs	1.0
Kentucky Bluegrass		
Perennial Ryegrass		
Creeping Red Fescue		
Creeping Bentgrass	259 lbs	0.75
Creeping Bentgrass	224 lbs	0.65

1. These are the maximum rates per calendar year by species limitations.
  2. May be used on newly sprigged or plugged Bermudagrass at rates not to exceed 172 lbs./A. Newly sprigged or plugged Bermudagrass stolon rooting may be temporarily retarded. Suppression only of Foxtail, Goosegrass, and Rescuegrass due to reduced product rates used in sprigging situations.
- Do not apply more than 517 lbs. of this product per calendar year.
  - Use higher rates of this product to achieve higher levels of fertility and longer periods of weed control for each turf type, but do not exceed the maximum application rates specified in the Maximum Annual Rates Table.

**SUGGESTED SPREADER SETTINGS\***

Spreader	Recommended Rates in lb per 1,000 sq ft	
	3 lb	4 lb
Perma-Green high gear	3.75	4.25
Perma-Green low gear	3.25	3.75
Lesco #	13	15
Lesco letter	D	F
Cyclone/Spyker	3.5	4.5
Vicon 4.5 mph	20	28
Lely 4.5 mph	3.75	4.5

\*ATTENTION: These settings are only approximate. Age, condition of the spreader and operator speed can cause wide variation.

**WHEN TO APPLY AFTER OVERSEEDING TURF**

Do not apply to overseeded turf within 60 days after seeding or until after the second mowing, whichever is longer. Injury to desirable seedlings is likely if this product is applied before seeding secondary roots are in the second inch of soil, not thatch plus soil.

**WHEN TO OVERSEED AFTER APPLICATION**

This product will inhibit the germination of turf species if overseeded too soon after application. Follow rates and intervals in the following table for best overseeding/reseeding results.

Cavalcade 0.29% Plus Fertilizer Rate (lb/Acre)	Product	ai	Months Before Overseeding		
			North	Transition	South
172		.50	4	4	4
224		.66	5	4	4
259		.74	6	5	5
276		.80	-	6	6
345		1.00	-	7	7
393		1.14	-	-	9
448		1.30	-	-	10
517		1.50	-	-	12

**STORAGE AND DISPOSAL**

**STORAGE:** Store this product in its original container in a dry, cool, secured area. Do not contaminate water, foodstuffs, feed, or seed by storage or disposal. **PRODUCT DISPOSAL:** As a responsible environmental practice, where possible, it is recommended that all of the contents of the bag be used, carefully following label directions and precautions. **IF EMPTY:** Do not reuse this bag. Place in trash or offer for recycling if available. **IF PARTLY FILLED:** Call you local waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain. **SPILL:** In case of spill, sweep up and dispose of material according to Product disposal directions above.

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION:** Causes moderate eye injury (irritation). Harmful if inhaled or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling. Prolonged or frequently repeated skin contact while handling the material may cause allergic reactions in some individuals.

**FIRST AID**

- IF SWALLOWED:** Call a Poison Control Center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
- IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.
- IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
- IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible. Call a poison control center, or doctor, or when going for treatment, you may also call 1-800-858-7378 for emergency medical treatment advice. See side panel for additional Precautionary Statements.

**CONDITIONS OF SALE AND WARRANTY**

The Directions for Use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application all of which are beyond the control of Frick Services, Inc. or the Seller. All such risks shall be assumed by the Buyer. Frick Services, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use subject to the inherent risks referred to above. Frick Services, Inc. makes no other express or implied Warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall Frick Services, Inc. or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this Product. Frick Services, Inc. and the Seller offer this product, and the Buyer and user accept it, subject to the foregoing Conditions of Sale and Warranty, which may be varied only by agreement in writing signed by a duly authorized representative of Frick Services, Inc.

Pro Ap is a trademark of Frick Services, Inc. Cavalcade is a trademark of Sipcam Agro USA, Inc.

EPA REG. NO. 60063-28-040249  
 EPA EST. NO. 040249-IN-010  
**Net Weight: 50 lb (22.68 kg)**



**MSDS# 02-006**



Trade Name: Pro Ap Cavalcade 0.29% Plus Fertilizer  
 Registration No: 60063-28-040249

DATE ISSUED: 1/12/2008  
 SUPERSEDES: NA

M02-006

**SECTION 1 CHEMICAL PRODUCT AND COMPANY INFORMATION**

Manufacturer or Formulator:	Frick Services, Inc. 3154 W. Depot Street Wawaka, IN 46794	Product Name:	Pro Ap Cavalcade 0.29% Plus Fertilizer
CHEMTREC: 800-424-9300	Emergency Phone: 800-552-1754	Common Name:	Pro Ap Cavalcade 0.29% Plus Fertilizer
		Chemical Type:	Inorganic Chemical Fertilizer with Pesticide
		IUPAC name:	5-propylamino- $\alpha$ - $\alpha$ -trifluoro-4,6-dinitro- $\alpha$ -toluidine

**SECTION 2 COMPOSITION INFORMATION**

Chemical Name and Synonyms	C.A.S. No.	Chemical Formula	WT%	TLV	PEL
			<b>Hazardous</b>		
Prodiamine	29091-21-2	not listed	0.29	Not Indicated	Not Indicated
			<b>Non-Hazardous</b>		
Blend of the following non-hazardous ingredients:			99.71		Not available
Urea	57-13-6	(NH <sub>2</sub> ) <sub>2</sub> CO		10 mg/m <sup>3</sup> (dust)	
				5 mg/m <sup>3</sup> (resp)	
Ammonium Sulfate	7783-20-2	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>		15 mg/m <sup>3</sup> (dust)	
Dicyandiamide					
Organic nitrogen	461-58-5	not listed			

**SECTION 3 HAZARDS IDENTIFICATION**

**Ingestion:** May cause aggravation to respiratory tract  
**Inhalation:** Avoid breathing dusts. May cause nose, throat and lung aggravation.  
**Eye Contact:** May cause aggravation.  
**Skin Absorption:** Not normally absorbed through the skin.  
**Skin Contact:** May cause aggravation.  
**Effects of Overdose:** Ingestion of large doses may cause diarrhea, nausea, abdominal cramps or formation of methemoglobinemia. Seek medical attention.

**SECTION 4 FIRST AID MEASURES**

**Ingestion:** If victim is fully conscious, immediately give a large quantity of water to drink, then induce vomiting by tickling back of throat with finger. Never give anything by mouth to an unconscious person.  
**Inhalation:** Remove person from contaminated area to fresh air or employ proper respiratory protection until adequate ventilation or other control measure is restored. Apply artificial respiration if necessary.  
**Eyes:** IMMEDIATELY flush eyes with plenty of water, holding eyelids apart to ensure flushing of the entire eye surface and lids. Do not apply any medication except on the advice of a physician.  
**Skin:** Wash with plenty of soap and water. Remove contaminated clothes and footwear. Wash clothing and decontaminate footwear before reuse. Do not apply any medication except on the advice of a physician.  
**Note to Physician:** There is no specific antidote if this product is ingested. If a large amount has been ingested and emesis is inadequate, lavage stomach. This product has a high affinity to activated charcoal. Fifty (50) grams activated charcoal in 400 ml water can be given to absorb the remaining material in the stomach. Treat the patient symptomatically.

**SECTION 5 FIRE FIGHTING MEASURES**

**Extinguishing Media:** Water spray, foam, dry chemical, CO<sub>2</sub>, sand, or fine earth.  
**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus and protective clothing.  
**Unusual Fire and Explosion Hazards:** Flammable or explosive with high-energy impact. During extremely high temperature fire conditions, the product may reach melting point and decompose to release NH<sub>3</sub>, SO<sub>x</sub>, PO<sub>x</sub> or CN.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Environmental Precautions:** Keep out of water supplies, lakes, ponds, streams and rivers. This product is a fertilizer and may promote algae growth.  
**Steps to be taken in case material is released or spilled:** Do not touch spilled product. Wear protective clothing, chemical-resistant gloves, shoes and safety glasses or goggles. Use approved respirator if exposure levels are high. If materials are uncontaminated, collect in resealable containers, label containers and reuse as directed on label. Do not reuse bag.

**SECTION 7 HANDLING AND STORAGE**

**Precautions to be taken in handling and storing:** Store in original container in a locked storage area inaccessible to children or pets. Store separately from food, feed, fertilizer, seeds, and other pesticides so that cross contamination does not occur.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Ventilation Protection:** Adequate ventilation.  
**Respiratory Protection:** Approved dust respirator when necessary.  
**Protective Clothing:** Wear long-sleeved shirt and pants; shoes and socks, and impervious gloves.  
**Eye Protection:** In dusty conditions, safety glasses with side shields or goggles may be necessary.

**SECTION 9 CHEMICAL PROPERTIES**

Boiling Point:	Not applicable	<b>Solubility in Water:</b>	Fertilizer chemicals are soluble in water.
Density:	68-70lb/ft <sup>3</sup>		Herbicide compound and polyurethane coating are water insoluble.
Flashpoint:	Non-flammable	<b>% Volatiles (by volume):</b>	Not applicable
pH:	Not listed	<b>Vapor Pressure, mm Hg:</b>	0.0033mPa@25°C
Appearance:	Multi-colored granules.	<b>Reaction with Water:</b>	None
Extinguishing Media:	Use media suitable to extinguish source of fire.		