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Systems Integration Group, Inc.

MEPPLUS PILL

ACTIVE INGREDIENT:

Mepiquat Chloride: N,N-dimethylpiperidinium chloride .....	95.80%
Bacillus cereus, Strain BP01 .....	0.11%
OTHER INGREDIENTS .....	4.09%
TOTAL:.....	100.00%

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).

FIRST AID

IF SWALLOWED: Call a physician or poison control center. Drink 1 to 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

IF IN EYES: Flush with plenty of water. Call a physician if irritation persists.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

IF INHALED: Move to fresh air. Aid in breathing, if necessary, and get immediate medical attention.

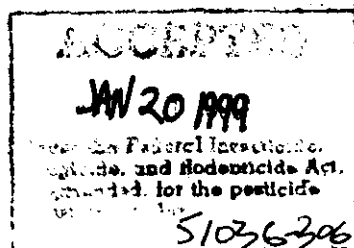
EPA Reg. No. 51036-GNA/306

EPA Est. No. 51036-GA-1

NET CONTENTS: \_\_\_\_\_

U.S. Patent No. 5,705,648 and others pending.  
International patents pending.

Manufactured By:  
MICRO FLO COMPANY  
P.O. BOX 5948  
LAKELAND, FL 33807



PRECAUTIONARY STATEMENTS  
Hazards to Humans and Domestic Animals

WARNING

May be fatal if swallowed. Harmful if inhaled or absorbed through skin. Avoid breathing dust or spray mist. Avoid contact with skin or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

1. Long-sleeved shirt and long pants
2. Waterproof gloves
3. Shoes plus socks
4. Wear a NIOSH accepted filtering facepiece respirator N-95 or higher.

Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment. If no such instructions for washables, use detergent and hot water. Keep and wash Personal Protective Equipment separately from other laundry.

USER SAFETY RECOMMENDATIONS

USERS SHOULD:

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

Engineering Controls Statement: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240(d) (4-6)], the handler Personal Protective Equipment requirements may be reduced or modified as specified in the Worker Protection Standard.

ENVIRONMENTAL HAZARDS

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 apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. 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.

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 agency responsible for pesticide regulation. When exposed to potentially high concentrations of living microbial products such as this, all mixer/loaders and other handlers must wear a NIOSH accepted filtering facepiece respirator N-95 or higher.

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 12 hours.

Personal Protective Equipment 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:

- 1. Coveralls
- 2. Chemical-resistant gloves
- 3. Shoes plus socks
- 4. Wear a NIOSH accepted filtering facepiece respirator N-95 or higher.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. STORAGE: Store in original container only, in a cool, dry, locked area. Tightly close or re-seal partially used containers to minimize moisture absorption. Store separately from other pesticides, fertilizers, food or feed to prevent contamination. In case of a spill or broken container, call CHEMTREC at 1-800-424-9300.

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

CONTAINER DISPOSAL: Completely empty package into application equipment. Then dispose of empty package in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. Stay out of smoke from burning bags.

IN CASE OF EMERGENCY: In case of large-scale spillage regarding this product, call CHEMTREC at 1-800-424-9300. In case of medical emergency regarding this product, call your local doctor for immediate treatment, or the local poison control center (hospital).

#### GENERAL INFORMATION

) MepPlus Pill is a dry, concentrated "pill" form of the chemical active ingredient used in the liquid products sold by BASF Corporation under the PIX Brand name and by Micro Flo under the brand name Mepichlor 4.2% Liquid. This pill form has been designed to be easy and economical to use and for easy container disposal. The sizes have been chosen so that one "pill" will be equivalent to one quart of a 4.2% liquid product.

) MepPlus Pill allows the grower to manage the cotton plant for short-season production leading to reduced risk of yield and quality loss due to delayed and prolonged harvest. Benefits derived from the use of MepPlus Pill include increased early boll retention and/or larger bolls, reduced plant height which provides a more open canopy, less boll rot, improved defoliation, less trash and lower ginning costs, better harvest efficiency and a darker leaf color. These benefits can provide for earlier maturity and often result in improved yields.

#### EARLY APPLICATION OF MEPPLUS PILL

Growers may use low-rate multiple applications, or higher, less frequent dosages which provide maximum flexibility under a wide range of growing conditions. MepPlus Pill should not be applied to plants under stress. If stress is alleviated, plants should be evaluated for vegetative growth before additional applications are made. MepPlus Pill may be tank mixed with insecticides/miticides when application timings coincide (See Restrictions and Limitations.)

Fields should be carefully scouted. MepPlus Pill should not be applied if plants are under any form of stress. In the absence of stress, a maximum of five low rate applications can be made each season. The first application can be applied at the match head square stage. The rate and timing of subsequent applications

depend on growing conditions. Under good growing conditions additional treatments (1/16th to 1/8th pill/acre) can be made at 7-14 day intervals. Higher rates of MepPlus Pill (1/8th to 3/8ths pill/acre) should be used if vegetative growth becomes excessive and a greater degree of height control is desired. Do not use more than a total of 1 1/2 pills/acre in a growing season. If significant loss of squares and/or young bolls has occurred earlier due to insect pressure or other stresses, but now these stresses have been alleviated, the need for MepPlus Pill is increased - excess vegetative growth is likely because of poor fruit load.

LATE SEASON APPLICATION OF MEPPLUS PILL

Late application of MepPlus Pill (approximately during the fourth to sixth week of blooming) can provide certain benefits to cotton. However, it should not and does not substitute for early season use, the time of the greatest benefit from the use of MepPlus Pill. Late season application can lead to one or more of the following: reduction in late season vegetative growth or regrowth after cutout or defoliation, more complete and manageable cutout, better defoliation, earlier maturity and reduction in trash and lower ginning costs. Some of these effects may favorably influence the yield potential and fiber quality. A late season application of MepPlus Pill should be applied only if fields are not drought or nutrient stressed; that is, those fields likely to experience additional vegetative growth or regrowth. However, fields that are very rank and extremely vigorous due to a combination of poor boll load and excellent growing conditions may not respond as much as desired to late season applications at the suggested rates.

TIMING FOR LATE SEASON APPLICATIONS

On fields where cotton cuts out and then starts regrowth: Apply when regrowth begins, as evidenced by new leaves in the terminal and stem elongation. This would often, but not always, be in the period of 5-6 weeks after the first bloom.

On fields where cotton never completely cuts out: Apply MepPlus Pill when there are 4-6 nodes above the white flower (NAWF). Measure NAWF by counting the number of mainstem nodes from the first position white bloom (the one closest to the mainstem) to the terminal. Count the node with the first position white bloom as zero and the last node in the terminal, which is counted, should have a leaf at least the size of a quarter. Generally, the NAWF first reaches 4-6 during the fourth to sixth week of bloom. During this time period, the NAWF should be decreasing about one node every 5-6 days - if its rate of decrease is less, this means that the plant is not cutting out soon enough (the crop is too vigorous). If the fifth week of bloom arrives and NAWF is still above 5-6, apply MepPlus Pill.

USE RATE FOR LATE SEASON APPLICATION

MepPlus Pill should be applied at a rate between 1/4th to 3/4ths pill per acre. Use the lower rate range on cotton with only moderate additional growth potential, and the higher rate range on fields likely to continue vigorous growth. Total seasonal use per season (early plus late application) must not exceed 1 1/2 pills per acre.

SPRAY VOLUMES

Thorough coverage is required.

IN WATER:

Areas other than California:

Ground Application - Use a minimum of 2 gallons of water per acre.

Aerial Application - Use a minimum of 2 gallons/acre.

California Only:

Ground Application - Use a minimum of 5 gallons/acre.

Aerial Application - Use a minimum of 5 gallons/acre.

IN OIL:

Application in oil is permitted only in AL, AR, FL, GA, LA, MO, MS, NC, OK, SC, TN and TX.

Do not attempt to add MepPlus Pill directly to oil in spray tank. Instead, dissolve MepPlus Pill in water before adding to an oil with added emulsifiers. Do a jar test for compatibility before attempting to mix large quantities.

Use a minimum total oil volume of 2 pints/acre for ultra low volume (ULV) aerial application. Use a non-phytotoxic oil concentrate which contains either a petroleum or vegetable oil base, contains only EPA-exempt ingredients, provides good mixing quality in the jar test (see "Compatibility" section), and has been used successfully in your locality. The oil diluent should contain emulsifiers which provide good mixing quality. If the oil does not contain an emulsifier, one must be added during mixing at a volume equal to 3% of the final volume of the mixing tank. Do not apply MepPlus Pill as ULV without using emulsifiers. If using a vegetable oil based product, only highly refined concentrates should be used.

Mix under constant and vigorous agitation. Pour one-half of the required volume of oil into the spray tank, followed by the emulsifier (if the oil does not already contain one) at approximately 3% of the final spray tank volume, and then add MepPlus Pill while the remainder of the oil is added. Constant agitation is required during and after mixing and during application.

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size

Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of Nozzles - Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.



Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

#### Boom Length

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

#### Application Height

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

#### Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

#### Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common

during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### Sensitive Areas

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

#### RAIN WASH-OFF PRECAUTION

The use of a high quality, EPA exempt surfactant will enhance the uptake of MepPlus Pill into the plant. Therefore, the use of a surfactant allows applications made as little as 4 hours prior to rainfall to be effective. Without a surfactant, the product should be used at least 8 hours prior to the expected rainfall.

#### COMPATIBILITY

MepPlus Pill is compatible with most insecticides and miticides. MepPlus Pill SHOULD ALWAYS BE ADDED TO THE SPRAY SOLUTION FIRST. If MepPlus Pill is added after boron, emulsifiable concentrates or liquid flowable products, additional dissolving time is necessary. If compatibility is in doubt, perform a jar test to check for compatibility. MepPlus Pill can be used with foliar fertilizers if your experience shows the combination is compatible and will not injure cotton under your conditions. Caution should be used when applying with foliar fertilizers under conditions of extreme heat.

#### RESTRICTIONS AND LIMITATIONS

Insect or mite damage to MepPlus Pill treated crops can lead to yield decreases or other undesirable effects.

Do not apply MepPlus Pill to cotton that is under stress. If using low rate multiple applications, discontinue use until your crop has overcome any stress.

Do not apply more than 1 1/2 MepPlus Pill per acre per season. The sum of all products and formulations containing mepiquat chloride must not exceed 0.132 pounds (60 grams) of mepiquat chloride per acre per season.

Do not apply MepPlus Pill within 30 days of harvest.

Do not graze or feed cotton forage to livestock.

MepPlus Pill forms a clear solution when added to water. Effectiveness is not related to the color of the spray solution of MepPlus Pill products.

Do not tank mix with other products other than those mentioned under "Compatibility".

Do not apply this product through any type of irrigation system.

Do not plant another crop within 75 days after last treatment.

Time and rate of application: Short-staple and long staple (Pima) cotton

Directions for use should be observed as specified below:

SEE CONVERSION CHART AT END OF DIRECTIONS FOR USE

I. HIGH RATE SINGLE OR MULTIPLE APPLICATIONS

Use these instructions when you are not able to start growth regulation treatments early, or when you want to make the fewest number of applications.

AREA	TIME OF APPLICATION	RATE PER ACRE
AL, AR, AZ, CA, FL, GA, LA, MO, MS, NM, NC, SD, TN, VA	First application: Apply when cotton is actively growing and is between 20" and 30" tall, but not more than 7 days beyond early bloom (5-6 blooms per 25 row feet). Also apply if cotton is 24" tall and has no bloom.	
	Use 1/4 pill per acre rate on cotton where excessive vegetative growth is not expected and use 1/2 pill per acre in areas where excessive vegetative growth has historically occurred See Restrictions and Limitations.	1/4th to 1/2 pill
	Second application: Make another application in 2 to 3 weeks if additional growth control is desired.	1/4th to 1/2 pill
	Third application for control of excessive growth: If the cotton field has a history of vigorous growth or if conditions continue to favor vigorous growth, apply a third application 1 to 2 weeks after the second application.	1/4th to 1/2 pill

AREA	TIME OF APPLICATION	RATE PER ACRE
	Late season application: See section titled "Late Season Application of MepPlus Pill".	1/4th to 3/4ths pill
OK, TX, (except Rio Grande Valley)	Areas <u>without</u> a history of excessive vegetative growth:  First application: Apply when cotton is in early bloom stage (5-6 blooms per 25 row feet) and actively growing. Also apply if no blooms are present and the cotton is 20" tall and actively growing. See Restrictions and limitations.	1/4th pill
	Second application: Make a second application in 3-4 weeks if additional growth control is desired.	1/4th pill
	Third application: If conditions after the second application of MepPlus Pill continue to favor vigorous growth, apply a third application 1 to 2 weeks after the second application.	1/4th pill
	Late season application: See section titled "Late Season Application of MepPlus Pill".	1/4th to 3/4ths pill
OK, TX	Areas <u>with</u> a history of excessive vegetative growth:  First application: For best results, apply when plants are in early bloom stage (5-6 blooms per 25 row feet) and an average of 24" tall. Treatments can also be made when cotton height averages a minimum of 20" and a maximum of 30", provided cotton is not more than 7 days beyond early bloom. If cotton is 24" tall and has no blooms, apply MepPlus Pill. See Restrictions and Limitations.	1/2 pill
	Second application: For fields with a history of excessive growth, or if conditions after the first application favor excessive growth, make a second application in 2 to 3 weeks.	1/4th to 1/2 pill
	Third application: If conditions after the second application of MepPlus Pill continue to favor vigorous growth, apply a third application 1 to 2 weeks after the second application.	1/4th to 1/2 pill

AREA	TIME OF APPLICATION	RATE PER ACRE
	Late season application: See section titled "Late Season Application of MepPlus Pill".	1/4th to 3/4ths pill

II. LOW-RATE MULTIPLE APPLICATIONS

Use these instructions when you want to maintain maximum flexibility in plant regulation treatments.

AREA	TIME OF APPLICATION	RATE PER ACRE	
		Excessive Growth Not Expected or Lower Rates Have Worked in the Past.	Excessive Growth Expected or Higher Rates Have Been Necessary in the Past.
AL, AR, AZ, CA, FL, GA, LA, MO, MS, NC, NM, OK, SC, TN, TX, VA	First application: Apply at the matchhead square <sup>1</sup> stage of growth.	1/16th pill	1/8th pill
	Second application: 7-14 days later, or when regrowth occurs.	1/16th pill	1/8th pill
	Third application: 7-14 days later, or when regrowth occurs.	1/16th to 1/8th pill*	1/8th to 1/4th pill*
	Fourth application: 7-14 days later, or when regrowth occurs.	1/16th to 1/4th pill *	1/8th to 3/8ths pill*
	Fifth application: (If needed): 7-14 days later, or when regrowth occurs.	1/8th to 1/4th pill*	1/8th to 3/8ths pill*
Late season application: See section titled "Late Season Application of MepPlus Pill".		1/4th to 1/2 pill*	3/8ths to 3/4ths pill*

\* Use the higher rate if previous application was not made or if growing conditions favor excessive growth.

<sup>1</sup> Matchhead square is when the first square of a typical cotton plant is 1/8 - 1/4" in diameter. Make the first application when 50% of the plants have one or more matchhead squares.

## CONVERSION CHART

Use this chart to compare MepPlus Pill and liquid equivalents.

MEPICHLOR PILL	MEPICHLOR 4.2% LIQUID
1/16th pill	2 fl. oz.
1/8th pill	4 fl. oz.
1/4th pill	8 fl. oz.
3/8ths pill	12 fl. oz.
1/2 pill	16 fl. oz.
3/4ths pill	24 fl. oz.
1 pill	32 fl. oz.

## CONDITIONS OF SALE AND WARRANTY

The Directions for Use of this product 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 use of the product in a manner inconsistent with its labeling, all of which are beyond the control of MICRO FLO COMPANY ("MICRO FLO") or the Seller. All such risks shall be assumed by the Buyer.

MICRO FLO warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Directions for Use when it is used in accordance with such directions, subject to the inherent risks mentioned above.

MICRO FLO NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS, WARNINGS OR CAUTIONS. BUYER'S EXCLUSIVE REMEDY AND MANUFACTURER'S OR SELLER'S EXCLUSIVE LIABILITY FOR ANY AND ALL CLAIMS, LOSSES, DAMAGES OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OF, OR THE REPAYMENT OF THE PURCHASE PRICE FOR, THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. MICRO FLO AND THE SELLER OFFER THIS PRODUCT, AND THE BUYER AND USER ACCEPT IT, SUBJECT TO THE FOREGOING CONDITIONS OF SALE AND WARRANTY.