

66330-60

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

CERTIFIED MAIL

W.A. Hawkins, Jr., Ph.D.
Arysta LifeScience North America
15401 Weston Parkway, Suite 150
Cary, NC 27513

JUN 8 2010

Subject: Midas EC Gold
EPA Reg. No. 66330-60
Pre-RED Mitigation Amendment – April 5, 2010
EPA Decision Number 434483

Dear Dr. Hawkins:

The amended label referred to above, submitted in connection with reregistration of chloropicrin under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable provided the following label revisions are made and the following conditions are met:

LABEL REVISIONS for Midas EC Gold (For sale and use in Florida Only)

1. On page 2 under the PPE section, revise the paragraph that begins, "**All Handlers (including applicators) while performing...**" to read, "**When performing tasks with liquid contact potential, all handlers (including applicators) must wear:**"
2. On page 3 under the PPE section, revise the paragraph that begins, "**All Handlers (including applicators) present in either...**" to read, "**When not performing tasks with liquid contact potential, all handlers (including applicators) present in either the application block (i.e., a field or portion of a field treated with a fumigant in any 24-hour period) until 5 days (120 hours) after the application is complete (i.e., after soil has been sealed) or the buffer zone during the buffer zone period (see exception for transient travel in the Buffer Zone section) must wear:**"
3. On page 3 under the PPE section, revise the paragraph that begins, "**All Handlers (including applicators) present in the application block...**" to read, "**When not performing tasks with liquid contact potential, all handlers (including applicators) present in the application block (i.e., a field or portion of a field treated with a fumigant in a 24-hour period) 5 days (120 hours) after the application is complete (i.e., after soil has been sealed) until the entry restricted period expires must wear:**"
4. On page 3, revise the language after the subheading "**IMPORTANT**" to read, "A self-contained breathing apparatus (SCBA) is not permitted for routine handler tasks. Wear

an SCBA and PPE required for liquid contact potential in emergencies such as a spill or leak or when corrective action is needed to reduce air levels to acceptable levels.”

5. On page 7 in the **Fumigant Safe Handling** paragraph, insert the following website, “<http://www.epa.gov/fumigantraining>.”
6. On page 8, revise the subheading and text under “Air-Rescue Device Availability. . .” to read “**AVAILABILITY OF RESPIRATORS FOR EMERGENCIES**
The employer of any handler must confirm that at least one self-contained breathing apparatus (SCBA) is on-site and is ready for use in case of an emergency. This must be documented in the FMP.”
7. On page 8 in the Entry Restricted Period, delete “until” in the fourth bullet.
8. On page 9 in the Tarp Perforation and/or Removal section in the first bullet, revise “sections” to “section.”
9. On page 9 in the Buffer Zone section in the fifth sentence of number 2, revise “within 3 days at the end” to read, “within 3 days of the end”.
10. On page 11 in the Buffer Zone table, delete footnote 4, and the reference to footnote 4 in the table header.
11. On page 12 in the Spill and Leak section, revise
 - a. the first bullet to read, “For entry into the affected area to correct problems, wear the personal protective equipment specified in the *Hazards to Humans and Domestic Animals* section of this labeling.”
 - b. Delete the bullet, “Refer to the Personal Protective Equipment section for Applicators and other handlers when handling liquid from spills and leaks.”
 - c. Revise the second sentence of the seventh bullet to read, “Dispose of contaminated material on site or at an approved waste disposal facility.”
12. On page 13, make the sub-bullet that begins, “Tarp information and procedures...” a main bullet.
13. On page 13, revise the bullet that begins “Air-purifying respirators...” to read, “Air purifying respirators, SCBAs, and other personal protective equipment (PPE) for handlers (handler task; protective clothing; respirator make, model, type, style, and size; respirator cartridge type; respirator cartridge replacement schedule; eye protection; gloves; and other PPE)”.
14. On page 14, revise the text “For handlers designated to wear air-purifying respirators. . .” to read “For handlers designated to wear respirators (air-purifying respirator or SCBA):
 - Date of medical qualification for respirator(s) that each handler is designated to wear,

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- Date of training for respirator(s) that each handler is designated to wear, and
 - Date of fit-testing for respirator(s) that each handler is designated to wear.”
15. On page 14 under the Air Monitoring Plan bullet, make the following revisions:
- In the first sub-bullet revise “an air purifying respirator” to read, “a full-face air-purifying respirator.”
 - In the third sub-bullet, revise “air-purifying respirators” to read, “a full-face air-purifying respirators.”
16. On page 14 under GAPS, delete the following, “(registrants may also include optional GAPS).”
17. On page 19 under the Midas EC Gold Raised Bed Drip Application section, revise the last sentence of the first paragraph to read, “To calculate the amount of product to be applied, multiply the application rate in lbs MIDAS EC GOLD/broadcast acre by the appropriate modifier from the Field Rate Modifier Table below, e.g., 485 lbs MIDAS EC GOLD/broadcast acre * 0.50 = 242.5 lbs MIDAS EC GOLD/treated acre.”
18. On page 20 in the Storage and Disposal box, add the heading “Container Disposal” above the subheading “Return of Containers”.

LABEL REVISIONS FOR Midas EC Gold (For sale and use in states other than Florida)

1. On page 2 under the PPE section, revise the paragraph that begins, “**All Handlers (including applicators) while performing...**” to read, “**When performing tasks with liquid contact potential, all handlers (including applicators) must wear:**”
2. On page 3 under the PPE section, revise the paragraph that begins, “**All Handlers (including applicators) present in either...**” to read, “**When not performing tasks with liquid contact potential, all handlers (including applicators) present in either the application block (i.e., a field or portion of a field treated with a fumigant in any 24-hour period) until 5 days (120 hours) after the application is complete (i.e., after soil has been sealed) or the buffer zone during the buffer zone period (see exception for transient travel in the Buffer Zone section) must wear:**”
3. On page 3 under the PPE section, revise the paragraph that begins, “**All Handlers (including applicators) present in the application block...**” to read, “**When not performing tasks with liquid contact potential, all handlers (including applicators) present in the application block (i.e., a field or portion of a field treated with a fumigant in a 24-hour period) 5 days (120 hours) after the application is complete (i.e., after soil has been sealed) until the entry restricted period expires must wear:**”

4. On page 3, revise the language after the subheading “**IMPORTANT**” to read, “A self-contained breathing apparatus (SCBA) is not permitted for routine handler tasks. Wear an SCBA and PPE required for liquid contact potential in emergencies such as a spill or leak or when corrective action is needed to reduce air levels to acceptable levels.”
5. On page 7 in the **Fumigant Safe Handling** paragraph, insert the following website, “<http://www.epa.gov/fumiganttraining>.”
6. On page 8, revise the subheading and text under “Air-Rescue Device Availability. . .” to read “**AVAILABILITY OF RESPIRATORS FOR EMERGENCIES**
The employer of any handler must confirm that at least one self-contained breathing apparatus (SCBA) is on-site and is ready for use in case of an emergency. This must be documented in the FMP.”
7. On page 8 in the Entry Restricted Period, delete “until” in the fourth bullet.
8. On page 9 in the Tarp Perforation and/or Removal section in the first bullet, revise “sections” to “section.”
9. On page 10 in the Buffer Zone table, delete footnote 4, and the reference to footnote 4 in the column header.
10. On page 12 in the Spill and Leak section, revise
 - a. the first bullet to read, “For entry into the affected area to correct problems, wear the personal protective equipment specified in the *Hazards to Humans and Domestic Animals* section of this labeling.”
 - b. Delete the bullet, “Refer to the Personal Protective Equipment section for Applicators and other handlers when handling liquid from spills and leaks.”
 - c. Make second to last bullet into two bullets that read as follows:
 - “Only correctly trained and PPE-equipped handlers are permitted to enter. Do not permit entry into the spill or leak area by any other person until the concentration of chloropicrin is measured to be less than 0.15 ppm.
 - Allow spilled fumigant to evaporate or to absorb onto vermiculite, dry sand, earth, or similar absorbent material. Dispose of contaminated material on site or at an approved waste disposal facility.”
11. On page 13, make the sub-bullet that begins, “Tarp information and procedures...” a main bullet.
12. On page 13, revise the bullet that begins “Air-purifying respirators...” to read, “Air purifying respirators, SCBAs, and other personal protective equipment (PPE) for handlers (handler task; protective clothing; respirator make, model, type, style, and size; respirator

cartridge type; respirator cartridge replacement schedule; eye protection; gloves; and other PPE)".

13. On page 13, revise the text "For handlers designated to wear air-purifying respirators. . ." to read "For handlers designated to wear respirators (air-purifying respirator or SCBA):
 - Date of medical qualification for respirator(s) that each handler is designated to wear,
 - Date of training for respirator(s) that each handler is designated to wear, and
 - Date of fit-testing for respirator(s) that each handler is designated to wear."
14. On page 14 under the Air Monitoring Plan bullet, make the following revisions:
 - In the first sub-bullet revise "an air purifying respirator" to read, "a full-face air-purifying respirator."
 - In the third sub-bullet, revise "air-purifying respirator" to read, "a full-face air-purifying respirators."
15. On page 14 under GAPS, delete the following, "(registrants may also include optional GAPS)."
16. On page 19 under the Midas EC Gold Raised Bed Drip Application section, revise the last sentence of the first paragraph to read, "To calculate the amount of product to be applied, multiply the application rate in lbs MIDAS EC GOLD/broadcast acre by the appropriate modifier from the Field Rate Modifier Table below, e.g., 485 lbs MIDAS EC GOLD/broadcast acre * 0.50 = 242.5 lbs MIDAS EC GOLD/treated acre."
19. On page 20 in the Storage and Disposal box, add the heading "Container Disposal" above the subheading "Return of Containers".

CONDITIONS

1. EPA has determined that the risk mitigation measures on the revised label for this product are necessary to adequately protect human health and the environment. Therefore, pursuant to 40 CFR § 152.130(d), EPA has decided that no product bearing previously approved labeling may be sold or distributed (release for shipment) by its registrant after December 1, 2010. Wherever state approval is required for sale or distribution of this product with this new labeling, EPA strongly encourages you to submit an application to the state authority as soon as possible. You should be aware that the Agency does not intend to modify the December 1, 2010, deadline because of any failure to obtain necessary state approvals.
2. Submit one copy of the final printed label that incorporates the required changes before the product is released for shipment.

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Midas EC Gold
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One copy of the label stamped "Accepted with comments" is enclosed for your records. If you have any questions, please contact Andrea Carone by phone at (703) 308-0122 or via email at carone.andrea@epa.gov or Mary Waller by phone at (703) 308-9354 or via email at waller.mary@epa.gov.

Sincerely,



Mary L. Waller
Product Manager (21)
Fungicide Branch
Registration Division (7504P)

Enclosure

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**RESTRICTED USE PESTICIDE
 DUE TO ACUTE TOXICITY**

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

MIDAS® EC GOLD

FOR SALE AND USE IN FLORIDA ONLY

Only For Pre-Plant Fumigations of Fields Intended for Commercial Production of Listed Crops and Field-Grown Ornamentals, for the Control of Soil-Borne Pests Including Weed Seeds, Nematodes, Insects, and Diseases.

ACTIVE INGREDIENTS:

Iodomethane.....	32.93%
Chloropicrin	61.69%
OTHER INGREDIENTS:	5.38%
TOTAL:	100.00%

One gallon weighs 15.1 pounds (5 pounds Iodomethane and 9.31 pounds Chloropicrin).

**KEEP OUT OF REACH OF CHILDREN
 DANGER / PELIGRO**

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 in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, and then continue rinsing. • Call a poison control center or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.
<p>HOT LINE NUMBERS</p> <p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</p> <p>FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE CALL: 1-866-303-6952 or 1-651-632-8946</p>	
<p>NOTE TO PHYSICIAN</p> <p>Probable mucosal damage may contraindicate the use of gastric lavage. Symptoms of overexposure may include irritation to eyes, skin, and respiratory system, shortness of breath, nausea, vomiting, dizziness, ataxia, slurred speech, drowsiness, blurred vision, staggering gait and mental imbalance, with probable recovery after period of no exposure. Treatment is symptomatic.</p>	

**ACCEPTED
 with COMMENTS
 In EPA Letter Dated:**

6/8/2010

**Under the Federal Insecticide,
 Fungicide, and Rodenticide Act,
 as amended, for the pesticide
 registered under EPA Reg. No. 66330-60**

EPA Reg. No. 66330-60
EPA Est. No.

For Product Information Call: 1-866-761-9397

Net Contents: _____ LBS

Manufactured for:
Arysta LifeScience North America, LLC
15401 Weston Parkway, Suite 150
Cary, NC 27513

PRECAUTIONARY STATEMENTS

HAZARD TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Corrosive to skin. Causes skin burns. May be fatal if inhaled or swallowed. Harmful if absorbed through skin. Do not get in eyes, on skin or on clothing. Do not breathe vapor. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

SPECIAL NOTE: This product contains chloropicrin, a poisonous liquid or vapor. Inhalation of vapors may be fatal. Chloropicrin is readily identified by smell. Exposure to very low concentrations of vapor will cause irritation of eyes, nose and throat. Continued exposure after irritation is evident or higher concentrations may cause painful irritation to the eyes or temporary blindness. Liquid will cause chemical burns to skin or eyes. Do not get on skin, in eyes, or on clothing. Chloropicrin fumigant has the capacity to cause marked irritation to the upper respiratory tract and is a strong lachrymator (tear producing eye irritant). Low concentrations, below those necessary to cause serious systemic intoxication, are capable of causing severely painful eye irritation, hence will not be voluntarily tolerated. However, the effect may be so powerful that a person may become temporarily blinded and panic-stricken and that in turn may lead to accidents.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate or viton \geq 14 mils. For more options, follow the instructions for category H on the chemical-resistance category selection chart.

All Handlers (including applicators) while performing tasks with liquid contact potential (including, but not limited to, supervisors, drip applicators and persons involved with spill recovery, container disposal, and equipment repair when within arm's length proximity and handling, adjusting or securing charged/pressurized lines, supply tubing, cylinders/tanks and other delivery equipment that contains liquid fumigant when cylinder/tank valves are in the open position) **must wear:**

- Loose fitting or well ventilated long-sleeved shirt and long pants,
- Chemical-resistant gloves,
- Chemical-resistant apron,
- Chemical-resistant footwear and socks,
- Full face shield or safety glasses with brow, temple and side protection. **DO NOT** wear goggles, and
- A half face air-purifying respirator with a 3M Brand No. 60928 cartridge filter, or equivalent (NIOSH approved number prefix TC-23C).
- In addition, if sensory irritation (tearing, burning, of the eyes or nose) is experienced while wearing a half-face air-purifying respirator, handlers must wear at a minimum a full-face air-purifying respirator with a 3M Brand No. 60928 cartridge filter, or equivalent (NIOSH approval number prefix TC-23C). See Directions for Use, Protection for Handlers, Respiratory Protection

and Stop Work Triggers, number 1: *Handlers Wearing Half-Face Air-Purifying Respirators*, for when a full-face respirator is required.

All Handlers (including applicators) present in either the application block (i.e., a field or portion of a field treated with a fumigant in any 24-hour period) until 5 days (120 hours) after the application is complete (i.e., drip lines have been purged and tarps have been laid) or the buffer zone during the buffer zone period (to include supervisors, cross ditchers, tarp monitors and drip applicators) (see exception for transient travel in the Buffer Zone section) must wear:

- Loose fitting or well ventilated long-sleeved shirt and long pants,
- Shoes plus socks,
- Full face shield or safety glasses with brow, temple and side protection. DO NOT wear goggles, and
- A half face air-purifying respirator with a 3M Brand No. 60928 cartridge filter, or equivalent (NIOSH approval number prefix TC-23C).
- In addition, if sensory irritation (tearing, burning, of the eyes or nose) is experienced while wearing a half-face air-purifying respirator, handlers must wear at a minimum a full-face air-purifying respirator with a 3M Brand No. 60928 cartridge filter, or equivalent (NIOSH approval number prefix TC-23C). See Directions for Use, Protection for Handlers, Respiratory Protection and Stop Work Triggers, number 1: *Handlers Wearing Half-Face Air-Purifying Respirators*, for when a full-face respirator is required.
- Do not wear jewelry, gloves, goggles, tight clothing, rubber protective clothing, or rubber boots when handling. Iodomethane and chloropicrin are heavier than air and can be trapped inside clothing and cause skin injury.

All Handlers (including applicators) present in the application block (i.e., a field or portion of a field treated with a fumigant in any 24-hour period) 5 days (120 hours) after the application is complete (i.e., drip lines have been purged and tarps have been laid) until the entry restricted period expires (to include planters, hole punchers, tarp cutters, tarp removers, tarp remover drivers, and persons involved with tarp and irrigation repair, air monitoring, scouting/crop advising) must wear:

- Loose fitting or well ventilated long-sleeved shirt and long pants,
- Shoes plus socks, and
- Full face shield or safety glasses with brow, temple and side protection. DO NOT wear goggles.
- In addition, if sensory irritation (tearing, burning, of the eyes or nose) is experienced, handlers must wear at a minimum a full-face air-purifying respirator with a 3M Brand No. 60928 cartridge filter, or equivalent (NIOSH approval number prefix TC-23C). See Directions for Use, Protection for Handlers, Respiratory Protection and Stop Work Triggers, number 2: *Handlers in the Application Block 5 days (120 hours) after the Application is Complete until the Entry Restricted Period Expires*, for when a full-face respirator is required.
- Do not wear jewelry, gloves, goggles, tight clothing, rubber protective clothing, or rubber boots when handling. Iodomethane and chloropicrin are heavier than air and can be trapped inside clothing and cause skin injury.

IMPORTANT: an air-supplying respirator [i.e., a respirator connected directly to a clean air source or a self-contained breathing apparatus (SCBA)] is not permitted for routine handler tasks. Such respirators are only permitted in emergencies such as a spill or leak or when corrective action is needed to reduce air levels to acceptable levels.

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User Safety Requirements

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

USER SAFETY RECOMMENDATIONS

User should:

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

ENVIRONMENTAL HAZARDS

This pesticide is toxic to mammals and birds. Do not apply directly to water or 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 waters or rinsate. Iodomethane and chloropicrin have certain properties and characteristics in common with chemicals that have been detected in ground water (iodomethane and chloropicrin are highly soluble in water and have low adsorption to soil).

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat, open flames, or sparking electrical equipment. Do not use application devices containing natural rubber, aluminum, magnesium or their alloys.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying this product.

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 the application.

For any requirements specific to your state or tribe, consult the 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), restricted entry intervals, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

For the entry restricted period and notification requirements, see the **Entry Restricted Period and Notification** sections of this labeling.

PPE for Entry during the Entry Restricted Period: PPE for entry that is permitted by this labeling is listed in the Hazards to Humans and Domestic Animals section of this labeling.

HANDLERS

The following activities are prohibited from being performed in the application block (i.e., the field or portion of a field treated with a fumigant in any 24-hour period) by anyone other than persons who have been appropriately trained and equipped as handlers in accordance with the requirements in the Worker Protection Standard (40 CFR Part 170), from the start of the application until the entry restricted period ends (NOTE: persons installing, perforating, removing, repairing, and monitoring tarps are considered handlers for the durations listed below). Those activities include those persons:

- Participating in the application as supervisors, loaders, drivers, tractor co-pilots, shovelers, cross ditchers, or as other direct application participants (the application starts when the fumigant is first introduced into the soil and ends after the fumigant has stopped being delivered/dispensed to the soil);
- Using devices to take air samples to monitor fumigant air concentrations;
- Cleaning up fumigant spills (this does not include emergency personnel not associated with the fumigation application);
- Handling or disposing of fumigant containers;
- Cleaning, handling, adjusting, or repairing the parts of fumigation equipment that may contain fumigant residues;
- Installing, repairing, operating, or removing irrigation equipment in the fumigant application block;
- Entering the application site to perform scouting, crop advising, or monitoring tasks;
- Installing, perforating (cutting, punching, slicing, poking), removing, repairing, or monitoring tarps:
 - until 14 days after application is complete if tarps are not perforated and removed during those 14 days, or
 - until tarp removal is complete if tarps are **both** perforated **and** removed less than 14 days after application, or
 - until 48 hours after tarp perforation is complete if they will not be removed within 14 days after application.

NOTE: see Tarp Perforation and/or Removal section on this labeling for requirements about when tarps are allowed to be perforated.

- Performing any handling tasks as defined by the WPS.

PROTECTION FOR HANDLERS

Respiratory Protection and Stop Work Triggers

1. Handlers Wearing Half-Face Air-Purifying Respirators

The following procedures must be followed to determine whether a full-face air-purifying respirator with a 3M Brand No. 60928 cartridge filter, or equivalent, is required or if operations must cease for handlers wearing a half-face air-purifying respirator:

- If at any time any handler experiences sensory irritation (tearing, burning of the eyes or nose) while wearing a half-face air-purifying respirator:
 - A full-face air-purifying respirator must be worn by all handlers who remain in the application block and/or buffer zone, **or**
 - Operations must cease and handlers not wearing full-face air-purifying respirators must leave the application block and/or buffer zone.
- When full-face air-purifying respirators are worn, then air-monitoring samples for chloropicrin must be collected at least every 2 hours in the breathing zone of a handler performing a representative handling task.
- When using monitoring devices to monitor air concentration levels, a direct reading detection device, such as a Matheson-Kitagawa, Dräger, or Sensidyne device must be used. The devices must have a sensitivity of at least 0.15 ppm for chloropicrin.
- When breathing zone samples are required, they must be taken outside respiratory protection equipment and within a ten inch radius of the handler's nose and mouth.
- If at any time (1) a handler experiences any sensory irritation when wearing a full-face air-purifying respirator; or (2) an air sample is greater than or equal to 1.5 ppm, then all handler activities must cease and handlers must be removed from the application block and buffer zone. If operations cease, the emergency plan detailed in the FMP must be implemented.

- Handlers can remove full-face air-purifying respirators or resume work activities if all of the following conditions exist provided that a half-face air-purifying respirator is worn:
 - Two consecutive breathing zone samples for chloropicrin taken at the handling site at least 15 minutes apart must be less than 1.5 ppm;
 - Handlers do not experience sensory irritation; and
 - Air-purifying respirator cartridges have been changed.
 - During the collection of air samples a full-face air-purifying respirator must be worn by the handler taking the air samples. Samples must be taken where the sensory irritation is first experienced.

2. Handlers in the Application Block 5 days (120 hours) after the Application is Complete until the Entry Restricted Period Expires

The following procedures must be followed to determine whether a full-face air-purifying respirator with a 3M Brand No. 60928 cartridge filter, or equivalent, is required or if operations must cease for handlers in the application block after the application is complete

- If at any time any handler experiences sensory irritation (tearing, burning of the eyes or nose) then either:
 - A full-face air-purifying respirator must be worn by all handlers who remain in the application block or
 - Operations must cease and handlers not wearing respiratory protection must leave the application block.
- Handlers can remove full-face air-purifying respirators or resume operations if two consecutive breathing zone samples taken at the handling site at least 15 minutes apart show that levels of chloropicrin have decreased to less than 0.15 ppm provided that handlers do not experience sensory irritation. During the collection of air samples, a full-face air-purifying respirator must be worn by the handler taking air samples. Samples must be taken where the sensory irritation is first experienced.
- When using monitoring devices to monitor air concentration levels, a direct reading detection device, such as a Matheson-Kitagawa, Dräger, or Sensidyne device, must be used. The devices must have a sensitivity of at least 0.15 ppm for chloropicrin.
- When breathing zone samples are required, they must be taken outside respiratory protection equipment and within a ten inch radius of the handler's nose and mouth.
- When full-face air-purifying respirators are worn, then air monitoring samples must be collected at least every two hours in the breathing zone of a handler performing a representative handling task.
- If at any time (1) a handler experiences any sensory irritation when wearing a full-face air-purifying respirator, or (2) an air sample is greater than or equal to 1.5 ppm, then all handler activities must cease and handlers must be removed from the application block. If operations cease, the emergency plan detailed in the FMP must be implemented.
- Handlers can resume work activities without full-face air-purifying respirators if two consecutive breathing zone samples taken at the handling site at least 15 minutes apart show levels of chloropicrin have decreased to less than 0.15 ppm, provided that handlers do not experience sensory irritation. During the collection of air samples a full-face air purifying respirator must be worn by the handler taking the air samples. Samples must be taken where the sensory irritation is first experienced.
- Work activities can resume if all of the following conditions exist provided that a full-face air-purifying respirator is worn:
 - Two consecutive chloropicrin breathing zone samples taken at the handling site at least 15 minutes apart must be less than 1.5 ppm, but are greater than 0.15 ppm;
 - Handlers do not experience sensory irritation while wearing the full-face air-purifying respirator; and
 - Cartridges have been changed.
 - During the collection of air samples, a full-face air-purifying respirator must be worn by the handler taking the air samples. Samples must be taken where the sensory irritation is first experienced.

Supervision of Handlers

Only Certified Applicators (certified by the state and trained by Arysta) in the proper handling, worker protection, and application of MIDAS EC GOLD soil fumigant and protected handlers under their direct supervision may be present in the treatment area during the application. For drip irrigation, the Certified Applicator must be at the fumigation site to start the application including set-up, calibration, and initiation of the application. The Certified Applicator may leave the site but must return at least every 2 hours to visually inspect the equipment to ensure proper functioning. The Certified Applicator must directly supervise all WPS-trained handlers onsite until the fumigant has stopped being delivered/dispensed into the soil. WPS-trained handlers may perform the monitoring functions in place of the Certified Applicator, but must be under the Certified Applicator's supervision and be able to communicate with the Certified Applicator at all times via cell phone or other means. The results of monitoring activities must be captured in the Fumigant Management Plan's (FMP) post-application summary.

For handling activities that take place after the fumigant has been delivered/dispensed into the soil until the entry restricted period expires, the Certified Applicator does not have to be on-site, but must have communicated, in a manner that can be understood, to the site owner/operator and handlers responsible for carrying out those activities the information necessary to comply with the label and procedures described in the FMP (e.g., emergency response plans and procedures). Communication activities must be captured in the FMP.

IMPORTANT: This requirement does not override the requirements in the Worker Protection Standard for Agricultural Pesticides for information exchange between owners/operators of agricultural establishments and commercial pesticide applicators.

The Certified Applicator must provide **Fumigant Safe Handling** information to each handler involved in the application or confirm that each handler participating in the application has received **Fumigant Safe Handling** information in a manner they can understand within the past 12 months. **Fumigant Safe Handling** information will be provided where this product is purchased, or at (*insert EPA Website*).

For all handling tasks at least two handlers trained under the provisions of the WPS 40 CFR 170.230 must be present.

Respirator Fit Testing, Medical Qualification and Training

Employers must verify that any handler who uses a respirator is:

- Fit-tested and fit-checked using a program that conforms to OSHA's requirements (see 29 CFR Part 1910.134)
- Trained using a program that conforms to OSHA's requirements (see 29 CFR Part 1910.134)
- Examined by a qualified medical practitioner to ensure physical ability to safely wear the style of respirator to be worn. A qualified medical practitioner is a physician or other licensed health care professional who will evaluate the ability of a worker to wear a respirator. The initial evaluation consists of a questionnaire that asks about medical conditions (such as a heart condition) that would be problematic for respirator use. If concerns are identified, then additional evaluations, such as a physical exam, might be necessary. The initial evaluation must be done before respirator use begins. Handlers must be reexamined by a qualified medical practitioner if their health status or respirator style or use-conditions change. Upon request by local/state/federal/tribal enforcement personnel, employers must provide documentation demonstrating how they have complied with these requirements.

Providing, Cleaning and Maintaining PPE

The employer of any handler (as stated in this label) must make sure that all handlers are provided and correctly wear the required PPE. The PPE must be cleaned and maintained as required by the Worker Protection Standard for Agricultural Pesticides.

Air-Purifying Respirator Availability

At a minimum two handlers must have the appropriate air-purifying respirator and cartridges available and these handlers must be fit-tested, trained and medically examined.

The employer of any handler must confirm that an air-purifying respirator and appropriate cartridges of the type specified in the PPE section of this labeling are immediately available for each handler who will wear one. This must be documented in the FMP.

Cartridges or canisters must be replaced when odor or irritation from this product becomes apparent, if the measured concentration of chloropicrin is greater than or equal to 1.5 ppm, or after 8 hours of use, whichever occurs first.

Air-Rescue Device Availability

The employer of any handler must confirm that at least one air-rescue device (e.g., SCBA) is on-site and is ready for use in case of an emergency. This must be documented in the FMP.

Exclusion of Non-Handlers from Application Block:

The Certified Applicator supervising the application and the owner/operator of the establishment where the fumigation is taking place must make sure that all persons who are not trained and PPE-equipped and who are not performing one of the handling tasks as stated in this labeling are excluded from the application block during the entry restricted period and the buffer zone during the buffer zone period.

Entry Restricted Period

Entry (including early entry that would otherwise be permitted under the WPS) by any person, other than a correctly trained and PPE-equipped handler who is performing a handling task listed on this labeling, is PROHIBITED from the start of the application until:

- 5 days (120 hours) after application is complete if tarps are not perforated and removed for at least 14 days following application, NOTE: Persons installing, repairing, or monitoring tarps are handlers until 14 days after the application is complete if tarps are not perforated and removed during those 14 days, or
- 48 hours after tarp perforation is complete if tarps will not be removed for at least 14 days following application, or
- Until tarp removal is completed if tarps are both perforated and removed less than 14 days after application.

NOTE: See **Tarp Perforation and/or Removal** section on this labeling for requirements about when tarps are allowed to be perforated.

Notification

Notify workers of the application by warning them orally and by posting Fumigant Treated Area signs. The Fumigant Treated Area signs must bear the skull and crossbones symbol and state:

- (1) "DANGER/PELIGRO"
- (2) "Areas under fumigation, DO NOT ENTER/NO ENTRE"
- (3) Iodomethane/Chloropicrin Fumigant In Use
- (4) Date and time of fumigation
- (5) Date and time entry restricted period is over
- (6) MIDAS EC GOLD, and
- (7) Name, address, and telephone number of the Certified Applicator in charge of the fumigation.

Post the Fumigant Treated Area sign instead of the WPS sign for this application but follow all WPS requirements pertaining to location, legibility, size and timing of posting and removal.

Post the Fumigant Treated Area signs at all entrances to the application block (i.e., the field or portion of a field treated with a fumigant in any 24-hour period).

Tarp Perforation and/or Removal

IMPORTANT: Persons perforating, repairing, removing, and/or monitoring tarps are defined, within certain time limitations, as handlers (see handlers as stated in this labeling) and must be provided the PPE and other protections for handlers as required on this labeling and in the Worker Protection Standard for Agricultural Pesticides.

- Standard tarps must not be perforated until a minimum of 5 days (120 hours) have elapsed after the fumigant injection into the soil is complete (e.g., after drip lines have been purged and tarps have been laid), unless a weather condition exists which necessitates early perforation, see **Early Tarp Perforation for Flood Prevention Activities** sections. Highly retentive tarps (on an Arysta approved list) must not be perforated until a minimum of 10 days (240 hours) have elapsed after the fumigation injection into the soil is complete.
- If tarps will be removed before planting, tarp removal must not begin until at least 2 hours after tarp perforation is complete.
- If tarps will not be removed before planting, planting or transplanting must not begin until at least 48 hours after the tarp perforation is complete.
- If tarps are left intact for a minimum of 14 days after fumigant injection into the soil is complete, planting or transplanting may take place while the tarps are being perforated.
- Tarps used for fumigations may be perforated manually **ONLY** for the following situations:
 - At the beginning of each row when a coultter blade (or other device which performs similarly) is used on a motorized vehicle such as an ATV.
 - In fields that are 1 acre or less.
 - During flood prevention activities.
- In all other instances tarps must be perforated (cut, punched, poked, or sliced) only by mechanical methods.
- **Early Tarp Perforation for Flood Prevention Activities**
 - Tarp perforation is allowed before the 5 or 10 days have elapsed.
 - Tarps must be immediately retucked and packed after soil removal.

Buffer Zone

The area adjacent to the treated area is referred to as the buffer zone. The buffer zone shall extend from the edge of the treated area in all directions. See Buffer Zone Table. The minimum buffer zone distance shall be 25 feet.

The Certified Applicator supervising the soil fumigation is responsible for the following:

1. Calculating the appropriate size of the buffer zone that must be maintained from the start of the application until 48 hours following the end of the application.
2. Establishing and maintaining the buffer zone from the start of the application until 48 hours following the end of the application. Buffer zones must be on the property under the control of the Certified Applicator and must not include property that is not under the control of the Certified Applicator unless written permission is obtained prior to fumigation, including signature, from responsible parties from all properties that will be included or partially included in the buffer zone. Buffer zones shall not extend onto public roads or areas, or onto any other land for which written consent is not attainable. The Certified Applicator must use an appropriate means to manage and maintain the buffer zone such as posting Buffer Zone signs around the perimeter of the buffer zone at potential points of entry, using trained workers to patrol the buffer zone, or other equivalent means. If Buffer Zone signs are used, they must be posted from the start of the application until 48 hours following the end of the application and must be removed within 3 days at the end of the buffer zone period. The Buffer Zone signs must include the same warning symbol and statements required for Fumigant Treated Area signs as stated on this label with the exception that signs will indicate "Fumigant Buffer Zone" at the top of the sign and will delete the statement "areas under fumigation".
3. Ensuring that unprotected workers and bystanders do not enter the buffer zone from the start of the application until 48 hours following the end of the application. Exception: Unprotected workers and bystanders may travel through (but not engage in any activity in) the buffer zone during the application and the 48-hour period following the end of the application, provided their

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total exposure time in any 24-hour period is 15 minutes or less. However, travel by unprotected workers or bystanders through the fumigated area itself is prohibited during the entire Entry Restricted period. Handlers protected with required Personal Protective Equipment (PPE) may work in buffer zones. See the PERSONAL PROTECTIVE EQUIPMENT section.

4. Ensuring application site has a distinctive buffer zone. The buffer zone of the field to be treated cannot overlap the buffer zone of another field treated within the last 48 hours.
5. Ensuring that there are no occupied nursing homes, hospitals, or prisons; and no occupied licensed schools, licensed day care facilities and licensed assisted living facilities (licensed by state or local governments) with ¼ mile of the fumigated area during the buffer zone period.

Determining Buffer Zone Distance

- Determine the size of the buffer zone using the following Buffer Zone Table.
- The size of the buffer zone will be dependent on the following three factors:
 - The number of field acres that are being treated with MIDAS EC GOLD.
 - The pounds of MIDAS EC GOLD that are being applied per treated acre.
 - Buffer zone reduction credits.

Buffer Zone Table

MIDAS EC GOLD Application Rate (Lbs per Treated Acre) ⁴	SIZE OF FIELD IN ACRES (Buffer zone distance in feet) ^{1, 2}							
	Up to 5 Acres	6 – 10 Acres	11-15 Acres	16- 20 Acres	21-25 Acres	26-30 Acres	31-35 Acres	36-40 ⁵ Acres
100	25	25	45	60	70	80	90	95
150	25	30	60	85	100	115	130	145
175	25	35	65	100	120	135	150	165
200	25	40	80	115	135	155	175	190
250	25	50	95	140	165	190	215	235
300	30	60	115	170	200	230	260	285
350	35	70	135	200	235	265	300	330
360	35	70	140	205	240	275	310	340
400	40	75	150	225	265	305	345	380
485	50	95	185	275	325	370	420	465

1. For rates not listed on this table, use the buffer zone for the next highest rate, or use the following calculation to determine the exact buffer zone distance:

$$\text{Buffer Zone for Application Rate Not Listed} = \frac{\text{Known Buffer Zone on Table} \times \text{Application Rate Not Listed}}{\text{Rate of Application for Known Buffer Zone}}$$

2. Buffer Zone Reduction Credits:

Reduce buffer zone by 10% for each factor listed below:

- Use of highly retentive tarps. Highly retentive tarps for which credit can be applied must be on an Arysta approved list. Examples of Arysta approved tarps are Canslit Brand Metalized 1.3 mil, Pliant Blockade® VIF 1.25 mil, and Pliant Metalized 1.0-1.25.
- Application to soils having >3% organic matter refer to the USDA or USGS Soil Survey Maps for the treated area that identify the range of organic matter and / or a documented soil survey report that lists range of % organic matter for the treated area. Collection of samples for analysis of soil in the treated area should follow procedures as per USDA's Natural Resource Conservation Services methods. Information on soil sampling can be found at www.soil.usda.gov.

For example, if the Buffer Zone is 50 feet and the application qualifies for a buffer zone reduction credit such as use of highly retentive tarps, then the buffer zone can be reduced by 10%, i.e., reduced by 5 feet based on the following calculation: 50 ft – (50 ft X 10%) = 45 feet.

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If the application qualifies for two buffer zone reduction credits such as use of a highly retentive tarps and soil with >3% organic matter, then the buffer zone can be reduced by 20%, i.e., reduced by 10 feet based on the following calculation: 50 ft – (50 ft X 20%) = 40 feet.

- 3. Applications are limited to 40 contiguous acres or less per day.
- 4. For raised bed applications, the treated acre is the raised bed, not the untreated furrows. As an example, if a raised bed field is 50% raised bed (treated) and 50% furrow (untreated), and 350 lbs of MIDAS EC GOLD is applied to the raised beds of the field, then the effective application rate to the treated raised bed is 350 lbs per treated acre; and that is the rate that would determine the buffer zone.
- 5. Contact your Arysta LifeScience representative for approved tarps and rate reduction recommendations

Note: Minimum allowable buffer zone is 25 feet regardless of buffer zone reduction credits.

GENERAL INFORMATION AND INSTRUCTIONS

This fumigant is a highly hazardous material. All uses of this fumigant are covered under the Worker Protection Standard, and must be conducted in accordance with all of the requirements of the Worker Protection Standard, (40 CFR Part 170). It is a restricted use pesticide that must only be used by Certified Applicators, certified by the state and trained by Arysta in the proper handling, worker protection, and application of MIDAS EC GOLD soil fumigant and handlers under their direct supervision. Before using, read the entire label and follow all use directions and precautions. All persons working with this fumigant must be knowledgeable about the hazards and trained in the use of required air-purifying respirator equipment and detector devices, emergency procedures and proper use of the fumigant.

Control of Soil-Borne Pests: MIDAS EC GOLD controls soil-borne pests including nematodes, insects, weed seeds, and diseases.

Midas EC GOLD will control the following pests when present in soil at the time of treatment:

Weed Seeds, including broadleaf weeds such as nutsedge, pigweed, broomrape and lambsquarters, and grasses such as bermudagrass, and annual bluegrass. Effectiveness against hard seed weeds, such as mallow, dodder, morning glory, and certain leguminous weeds may be variable.

Plant-parasitic Nematodes, such as root-knot, root lesion (meadow), cyst, citrus, burrowing, false root-knot, lance, spiral, ring, stubby root, dagger, awl, sheath and sting (stylet) nematodes.

Soil-borne Insects, such as wireworms, cutworms, grubs, rootworms, ants and garden symphylans.

Soil-borne Diseases, such as *Verticillium*, *Pythium*, *Rhizoctonia*, *Phytophthora*, and *Fusarium*.

MIDAS EC GOLD is not to be used as a preventative treatment for pests that may be introduced after the fumigant has been applied and/or tarps removed. To reduce the potential for the re-introduction of pests (nematodes, weed seed and disease); avoid the use of irrigation water, transplants or equipment that could carry pests into the planting area. Avoid moving infested soil back into the treated area through cultivation or other means.

GENERAL USE PRECAUTIONS

- Follow all local government instructions for posting of treated areas and post all treated areas with warning signs.
- Comply with all local ordinances and regulations.

- Do not apply within ¼ mile of nursing homes, hospitals or prisons; or licensed schools, licensed day care facilities or licensed assisted living facilities (licensed by state or local governments) that will be occupied during the buffer zone period.
- Applications are limited to 40 contiguous acres or less per day.
- Never fumigate alone. A minimum of two persons must be present during handling and application of soil fumigants.
- Additional instructions must be made available to handlers in the mechanical operation of the application equipment and how to safely work with the operator while fumigating.
- Always handle this product in the open, with all handlers positioned "upwind" from the container and/or where there is adequate ventilation.
- When fumigating, it is required that 5 gallons of water be available in the service truck. This water must be potable and in containers marked "Decontamination water not to be used for drinking.
- For raised bed drip applications, keep all pets, livestock and other domestic animals out of the treated areas for 5 days. Most raised bed applications will not result in tarp removal.
- Do not allow entry by unprotected persons into the fumigated area until the Fumigant Treated Area signs are removed.

SPILL AND LEAK PROCEDURES

- For Spill and Leak PPE requirements refer to the Personal Protective Equipment, All Handlers (including applicators) while performing tasks with liquid contact potential section on this label.
- Refer to the Personal Protective Equipment section for Applicators and other handlers when handling liquid from spills and leaks.
- Cease all operations if any leak develops in the fumigation system.
- Evacuate everyone from the immediate area of the spill or leak.
- Approach the area from the upwind side. Work upwind to repair leak(s), if possible.
- Only correctly trained and PPE-equipped handlers are permitted to enter. Do not permit entry into the spill or leak area by any other person until the concentration of chloropicrin is measured to be less than 0.15 ppm.
- Allow spilled fumigant to evaporate or to absorb onto vermiculite, dry sand, earth, or similar absorbent material. Such material should be disposed of on site or at an approved disposal facility.
- Contaminated soil, water and other cleanup debris may be hazardous waste. Report any spill that exceeds 300 lbs (19.9 gallons of product) to the National Response Center at 1-800-424-8802.

SITE-SPECIFIC FUMIGATION MANAGEMENT PLAN (FMP)

Prior to the start of fumigation, the Certified Applicator supervising the application must verify that a site-specific FMP exists for each application block (i.e., a field or portion of a field treated with a fumigant in any 24-hour period). In addition, an agricultural operation fumigating multiple application blocks may format the FMP in a manner whereby all of the information that is common to all the application blocks is captured once, and any information unique to a particular application block or blocks is captured in subsequent sections.

The FMP must be prepared by the Certified Applicator, the site owner/operator, registrant or other party.

The Certified Applicator must verify in writing (sign and date) that the site-specific FMP(s) reflects current site conditions before the start of fumigation.

Each site-specific FMP must contain the following elements:

- Applicator information (name, phone number, pesticide applicator license and/or certificate number, employer name, employer address)
- General site information
 - Application block location (e.g., county, township-range-section quadrant), address, or global positioning system (GPS) coordinates
 - Name, address, and phone number of owner/operator of the application block
 - Diagrams and maps
 - Identify nursing homes, hospitals, prisons, licensed schools, licensed day care facilities, or licensed assisted living facilities (licensed by state or local governments) within ¼ mile of the fumigated area, and document how it was determined that such sites would be unoccupied during the application period.
- General application information (target application date/window, brand name of fumigant, EPA registration number)
 - Tarp information and procedures for repair, perforation, and removal
 - Brand name, lot number, thickness
 - Name and phone number of person responsible for repairing tarps
 - Schedule for checking tarps for damage, tears, and other problems
 - Maximum time following notification of damage that the person(s) responsible for tarp repair will respond
 - Minimum time following application that tarp will be repaired
 - Minimum size of damage that will be repaired
 - Other factors used to determine when tarp repair will be conducted
 - Name and phone number of person responsible for perforating and/or removing tarps (if other than certified applicator)
 - Equipment/methods used to perforate tarps
 - Schedule and target dates for perforating tarps
 - Schedule and target dates for removing tarps
- Soil conditions (description of soil texture in application block, method used to determine soil moisture)
- Weather conditions (summary of forecasted conditions for the day of the application and the 48-hour period following the fumigant application)
 - Wind speed
 - Inversion conditions (e.g., shallow, compressed (low-level) temperature inversion)
 - Air stagnation advisory
- Buffer Zones
 - Application method
 - Application rate (pounds of MIDAS EC GOLD)
 - Application block size (acres)
 - Credits applied
 - Description of areas in the buffer zone that are not under the control of the owner/operator of the application block and how it was verified that these structures were unoccupied during the buffer zone period, including any consent documentation signed by parties whose properties were outside the control of the Certified Applicator but were included in the buffer zone.
- Air-purifying respirators, air-rescue devices, and other personal protective equipment (PPE) for handlers (handler task, protective clothing, air-purifying respirator type, respirator cartridge type, respirator cartridge replacement schedule, air-rescue device type, eye protection, gloves, other PPE)
- Emergency procedures (evacuation routes, locations of telephones, contact information for first responders, local/state/federal/tribal contacts, key personnel and emergency procedures/responsibilities in case of an incident, equipment/tarp/seal failure or complaints, or other emergencies).
- Fumigant Treated Area and/or Buffer Zone (if used) posting procedures [person(s) who will post Fumigant Treated Area and/or Buffer Zone (if used) signs, location of Fumigant Treated Area and/or Buffer Zone (if used) signs, procedures for Fumigant Treated Area and/or Buffer Zone (if used) sign removal].

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- Plan describing how communication will take place between the applicator, land owner/operator, and other on-site handlers (e.g., tarp perforators/removers, irrigators) for complying with label requirements (e.g., timing of tarp perforation and removal, PPE, buffer zone location).
 - Name and phone number of persons contacted
 - Date contacted
- Authorized on-site personnel
 - Names, addresses and phone numbers of handlers
 - Names, addresses and phone numbers for employers of handlers
 - Tasks that each handler is authorized and trained to perform
 - For handlers designated to wear air-purifying respirators:
 - date of medical qualification to wear an air-purifying respirator
 - date of air-purifying respirator training, and
 - date of fit-testing for the air-purifying respirator.
- Air monitoring plan
 - If sensory irritation is experienced; indicate whether operations will be ceased or operations will continue with an air-purifying respirator
 - If the intention is to cease operations when sensory irritation is experienced, provide the name, address, and phone number of the handler that will perform monitoring activities prior to operations resuming
 - When air-purifying respirators are worn:
 - Representative handler tasks to be monitored
 - Monitoring equipment to be used and timing of monitoring
- Good Agricultural Practices (GAPs)
 - Description of applicable mandatory GAPs (registrants may also include optional GAPs)
 - Measurements and documentation to ensure GAPs are achieved (e.g., measurement of soil and other site conditions)
- Description of hazard communication. (The application block has been posted in accordance with the label. Non-handlers are excluded from the buffer zone. Pesticide product labels and material safety data sheets are on-site and readily available for employees to review.)
- Record-keeping procedures (the owner/operator of the application block as well as the Certified Applicator must keep a signed copy of the site-specific FMP for 2 years from the date of application).

For situations where an initial FMP is developed and certain elements do not change for multiple fumigation sites (e.g., applicator information, authorized on-site personnel, record-keeping procedures, emergency procedures) only elements that have changed need to be updated in the site-specific FMP provided the following:

- The Certified Applicator supervising the application has verified that those elements are current and applicable to the application block before it is fumigated.
- Record-keeping requirements are followed for the entire FMP (including elements that do not change).

Once the application begins, the certified applicator must make a copy of the FMP available for viewing by handlers involved in the fumigation. The certified applicator or the owner operator of the application block must provide a copy of the FMP to any local/state/federal/tribal enforcement personnel who request the FMP. In the case of an emergency, the FMP must be made immediately available when requested by local/state/federal/tribal emergency response and enforcement personnel.

Within 30 days of completing the application portion of the fumigation process, the Certified Applicator supervising the application must complete a post-application summary that describes any deviations from the FMP that have occurred, measurements taken to comply with GAPs, monitoring results as well as any complaints and/or incidents that have been reported to him/her.

The Post-Application Summary must contain the following elements:

- Actual date of the application, application rate, and size of application block fumigated
- Summary of weather conditions on the day of the application and during the 48-hour period following the fumigant application
- Soil temperature measurement (if air temperatures were above 100° F in any of the 3 days prior to the application)
- Tarp damage and repair information (if applicable)
 - Location and size of tarp damage
 - Description of tarp/tarp seal/tarp equipment failure
 - Date and time of tarp repair
- Tarp perforation/removal details (if applicable)
 - Description of tarp removal (if different than in the FMP)
 - Date tarps were perforated
 - Date tarps were removed
- Vacating occupied structures within the buffer zone
 - Dates and times people left occupied structures within the buffer zone; and when they were allowed to return to such structures.
- Complaint details (if applicable)
 - Person filing complaint (e.g., on-site handler, person off-site)
 - If off-site person, name, address, and phone number of person filing complaint
 - Description of control measures or emergency procedures followed after complaint.
- Description of incidents, equipment failure or other emergency, and emergency procedures followed (if applicable)
- Details of elevated air concentrations monitored on-site (if applicable)
 - Location of elevated air concentration levels
 - Description of control measures or emergency procedures followed
 - Air monitoring results
 - When sensory irritation experienced:
 - Date and time of sensory irritation
 - Handler task/activity
 - Handler location where irritation was observed
 - Resulting action (e.g., cease operations, continue operations with air-purifying respirators)
 - When using a direct read instrument:
 - Sample date and time
 - Handler task/activity
 - Handler location
 - Air concentration
 - Sampling method
- Date of Fumigant Treated Area sign removal.
- Date of Buffer Zone sign removal (if used)
- Any deviations from the FMP
- Record-keeping procedures (the owner/operator of the application block as well as the Certified Applicator must keep a signed copy of the post-application summary for 2 years from the date of application).

MANDATORY GOOD AGRICULTURAL PRACTICES (GAPs)

The following GAPs must be followed during all fumigant applications. All measurements and other documentation planned to ensure that the mandatory GAPs are achieved must be recorded in the FMP and/or post-application summary.

- MIDAS EC GOLD must be transferred through connecting hoses, pipes, and/or couplings sufficiently tight to prevent workers or other persons from coming in contact with the liquid.
- All hoses, piping, and tanks used in connection with this product shall be of a type appropriate for use under the pressure and vacuum conditions to be encountered.

- Hoses between any fumigant container and the flow meter or flow delivery device must be Teflon® hoses reinforced with stainless steel wire braid or its equivalent.
- External sight gauges, if applicable, shall be equipped with a valve so that pipes to sight gauge can be shut off in case of breakage or leakage.
- The mechanical transfer system must be adequate to make necessary measurements of the pesticide being used.
- Shut-off devices must be installed on the exit end of all cylinder connections and at all disconnect points to prevent leakage of product when the transfer is stopped and hose is removed or disconnected.
- The pressure in hoses used to move the product must not exceed the manufacturer's maximum pressure specifications.
- Check equipment to ensure good condition and integrity prior to each use.

Tarps (tarps are required for all MIDAS EC GOLD applications. Prior to application, cover the areas to be treated with a tarp).

- A written tarp plan must be developed and included in the FMP. The plan must include:
 - schedule and procedures for checking tarps for damage, tears, and other problems
 - plans for determining when and how repairs to tarps will be made, and by whom
 - minimum time following injection that tarp will be repaired
 - minimum size of tarp damage that will be repaired
 - other factors used to determine how and when tarp repair will be conducted
 - schedule, equipment, and methods used to perforate tarps
 - aeration plans and procedures following perforation of tarp, but prior to tarp removal or planting/transplanting
 - schedule, equipment, and procedures for tarp removal

Weather Conditions

- Prior to fumigation the weather forecast for the day of the application and the 48-hour period following the fumigation must be checked to determine if unfavorable weather conditions exist (see **Identifying Unfavorable Weather Conditions** section) or are predicted and whether fumigation should begin.
- Wind speed at the application site must be a minimum of 2 mph at the start of the application or forecasted to reach at least 5 mph during the application.
- Do not apply if a shallow, compressed (low-level) temperature inversion is forecast to persist for more than 18 consecutive hours for the 48-hour period after the start of application, or if there is an air stagnation advisory issued by the National Weather Service in effect for the area in which the fumigation is planned.
- Detailed local forecasts for weather conditions, wind speed, and air stagnation advisories may be obtained on-line at: <http://www.nws.noaa.gov>, or by contacting your local National Weather Service Forecasting Office.
- **Identifying Unfavorable Weather Conditions** - Unfavorable weather conditions block upward movement of air, which results in trapping fumigant vapors near the ground. The resulting air mass can move off-site in unpredictable directions. These conditions typically exist prior to sunset and continue past sunrise and persist as late as noontime. Unfavorable conditions are common on nights with limited cloud cover and light to no wind and their presence can be indicated by ground fog or smog and can also be identified by smoke from a ground source that flattens out below a ceiling layer and moves laterally in a concentrated cloud.

Soil Preparation

- Soil must be properly prepared and at the surface generally be free of large clods. The area to be fumigated must be tilled to a depth of at least 5 to 8 inches.
- Field trash must be properly managed. Residue from a previous crop must be worked into the soil to allow for decomposition prior to fumigation. Little or no crop residue shall be present on the soil surface. Crop residue that is present must not interfere with the soil seal. Removing the

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crop residue prior to fumigation is important to limit the natural "chimneys" that occur in the soil when crop residue is present. These "chimneys" allow the soil fumigants to move through the soil quickly and escape into the atmosphere. This may create potentially harmful conditions for workers and bystanders and limit the efficacy of the fumigant. However, crop residue on the field serves to prevent soil erosion from both wind and water and is an important consideration. To accommodate erosion control, fumigant efficacy, and human health protection, clear fields of crop residue as close to the timing of the fumigation as possible to limit the length of time that the soil would be exposed to potentially erosive weather conditions.

- Till fields with known plowpans because they can lead to puddling of the fumigant due to inadequate soil drainage.

Soil Temperature

- The soil temperature at a depth of 8 inches must not be less than 55° F or exceed 90° F at the beginning of the application.
- If air temperatures have been above 100° F in any of the three days prior to application, then soil temperature must be measured and recorded in the FMP.

Prior to All Applications:

- Ensure that application equipment does not contain components made of natural rubber, aluminum, magnesium or their alloys.

During All Applications:

- Do not change cylinders when the fumigant system is under pressure. Change cylinders with all cylinder valves in the off position.

Following All Applications:

- To minimize the potential for crop injury, allow the fumigant to dissipate before planting a crop. Seeds may be used as a bioassay to determine if MIDAS EC GOLD is present in the soil at concentrations sufficient to cause plant injury. See fumigation table for planting requirements.
- Fumigation of highly acidic soils or those high in organic matter can cause ammonia toxicity to plants and or elevated levels of soluble salts in the soil causing phytotoxicity. Analyze soil following fumigation and fertilize as indicated. Avoid those fertilizers using ammonium salts.
- When using standard tarps, planting shall not occur for at least 10 days after application.
- When using highly retentive tarps, planting shall not occur for at least 14 days after application.

MANDATORY GOOD AGRICULTURAL PRACTICES (GAPs) FOR MIDAS EC GOLD DRIP APPLICATIONS

In addition to the GAPs required for all soil fumigation applications, the following GAPs apply for drip applications:

- Apply this product only through buried drip tape. Do not apply this product through any other type of irrigation system. Drip tape used to apply MIDAS EC GOLD must be buried 2-4 inches beneath the soil surface. Use of a tarp seal is required for all applications of this product.
- Crop, injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- Do not connect an irrigation system used for pesticide applications to a public water system unless the pesticide label prescribed safety devices for public water systems are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction.

There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

- The certified applicator or WPS trained handlers under the supervision of and in communication with the certified applicator shall shut the system down and make necessary adjustments should the need arise.

Product and Dosage

- Plan the application by calculating the amount of MIDAS EC GOLD required at the appropriate rate for the crop, acreage and target pest. MIDAS EC GOLD must be metered into the water supply line and then passed through a mixing device, such as a centrifugal pump or static mixer, to assure proper agitation.
- Do not allow treatment solution to accumulate on the soil surface. Do not allow treatment solution to pond, puddle or run-off. If run-off occurs, discontinue the application immediately; cover the contaminated soil area with untreated soil to absorb the material; and tarp the contaminated area until 48 hours following the end of the application.
- The dilution rate for drip-line fumigation is 1060-1515 ppm. One gallon of MIDAS EC GOLD in 1810 gallons of water is equivalent to 1000 ppm. MIDAS EC GOLD must be metered into the water.
- In very sandy soils, apply MIDAS EC GOLD when soil moisture conditions throughout the treatment zone are near field capacity. When necessary, apply a pre-treatment amount of water to wet the bed and enhance even movement of the material through the soil profile at the time of treatment.

System Controls and Integrity

- The irrigation system (main lines, headers, drip tape) must be thoroughly checked for leaks before the start of application. Leak detection requires that the irrigation system be at full operating pressure. The amount of time needed at full operating pressure will vary by irrigation system design. Look for puddling along major pipes (holes in pipes or leaky joints), at the top and ends of rows (leaky connection, open drip tape), and on the bed surface (damaged drip tape, malfunctioning emitters). Any leaks discovered during the pre-application check must be repaired prior to fumigant application.
- To inject MIDAS EC GOLD, use a metering system (such as a positive pressure system, positive displacement injection pump, diaphragm pump, or a Venturi system) effectively designed and constructed of materials that are compatible with the fumigant and capable of being fitted with system interlocking controls. Do not use containers pumps or other equipment made of aluminum, magnesium or their alloys as chloropicrin can be corrosive to such metals.
- The system must contain:
 - A functional check valve, vacuum-relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination and backflow;
 - A functional, automatic, quick-closing check valve to prevent the flow of fluids back toward the fumigant container;
 - A functional, normally closed solenoid-operated valve located on the intake side of the injection point and connected to the system interlock to prevent the fumigant from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down;
 - Functional interlocking controls to automatically shut off the fumigant injection when the irrigation water flow stops or decreases to the point where fumigant distribution is adversely affected;
 - Drip irrigation components made of brass, stainless steel, copper, nickel, polypropylene, polyethylene, Teflon, viton, rigid PVC, and EPDM. Rigid PVC must **NOT** be exposed to undiluted MIDAS EC GOLD or more than 1515 ppm of MIDAS EC GOLD in the diluted form. **DO NOT** use aluminum, vinyl, plastic (other than polypropylene or polyethylene), zinc or alloys.

Site of Injection and Irrigation System Layout

- Site of injection must be as close as practical to the area being treated (such as direct injection of fumigant into the header pipe/manifold or into an above ground delivery pipe attached to the header). If the fumigant is injected into a main line, make sure the irrigation pipe is able to be cleared of all fumigant as the fumigant may pool in low sections of the pipe. Also make sure that valves on lateral lines of the main line are closed, if these lateral lines lead to areas not being fumigated at the time of the application.

System Flush

- After application of MIDAS EC GOLD, continue to drip-irrigate the area with water to flush the irrigation system. Do not allow MIDAS EC GOLD to remain in the irrigation system after the application is complete. The total volume of water, including the amount used for flushing the irrigation system, must be adequate to completely remove the fumigant from the lines, but should be less than the amount that could over-saturate the beds (bed collapse can occur from over-saturation). If common lines are used for both the fumigant application and water seal (if a water seal is applied), these lines must be adequately flushed before starting the water seal and/or normal irrigation practices.

Soil Sealing

- Tarps must be put in place before the fumigation begins.
- Tarp edges must be buried along the furrow and at the ends of rows.

MIDAS EC GOLD RAISED BED DRIP APPLICATION

Rates in the table below are given in pounds of MIDAS EC GOLD per broadcast acre. The amount of product applied will be proportionate to the row spacing and width of the raised bed. To calculate the amount of product to be applied, multiply the application rate in lbs MIDAS EC GOLD/broadcast acre by the appropriate modifier from the Field Rate Modifier Table below.

RAISED BED DRIP APPLICATION TABLE		
Crop	MIDAS EC GOLD Per Broadcast Acre¹	Time Between Application and Planting²
Field-Grown Ornamentals Peppers Strawberries Tomatoes	Standard Tarps 300 - 485 lbs/Broadcast Acre (19.8 – 32.2 gal/Broadcast Acre)	10 – 14 days
	Highly Retentive Tarps³ 175 – 200 lbs/Broadcast Acre (11.6 – 13.3 gal/Broadcast Acre)	14 – 21 days When using highly retentive tarps
NOTE:		
¹ For fields infested with nutsedge and Malva, apply a minimum of 450 lbs/broadcast acre (29.8 gal/acre) of MIDAS EC GOLD with standard tarps and 250 lbs/broadcast acre (16.6 gal/acre) with highly retentive tarps.		
² Use the longer planting restriction period under conditions of high soil moisture, heavy soils, or rain.		
³ Contact your Arysta LifeScience representative for tarp selection and rate reduction recommendations and approved tarps.		

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Field Rate Modifier Table for Raised Bed Applications

Row Spacing (inches)	Bed Width (inches)	Field Rate Modifier
72	40	0.55
72	36	0.50
72	32	0.44
72	30	0.42
72	28	0.39
66	32	0.48
66	30	0.45
66	28	0.42
66	24	0.36
60	30	0.50
60	28	0.47
48	28	0.58

ROTATIONAL CROPS

Food crops other than strawberry, tomatoes, and peppers require a 4 month plant back rotation restriction from the date of fumigant application. Crop rotation to non-food crops or non-bearing fruit or nut trees is not restricted.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in a dry, cool, well-ventilated area under lock and key. When appropriate to prevent tipping, store cylinders upright, secured to a rack or wall. Post as a pesticide storage area.

Handling: Product cylinders shall not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging or sliding. Do not use rope slings, hooks, tongs, or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured. Do not remove valve protection bonnet and safety cap until immediately before use. When cylinder is not in use, close valve by turning clockwise until hand tight, screw safety cap onto valve outlet, and replace protection bonnet.

Pesticide Disposal: Pesticide wastes are acutely hazardous. 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.

Return of Containers: Refillable container. Refill this container with 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.

This pesticide container, whether full or partially used, is the property of the manufacturer or distributor where it was purchased and must be returned to the distributor of origin. Do not ship containers without safety caps or valve protection bonnets. Containers shall never be refilled by the consumer or used for any other product or purpose.

FOR 24-HOUR CHEMICAL EMERGENCY (spill, leak, fire or accident) ASSISTANCE:
Call CHEMTREC at 1-800-424-9300

Warranty and Disclaimer Statement

The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Such risks may

arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of Arysta LifeScience North America, LLC ("Arysta"), and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. To the extent applicable by law, all such risks shall be assumed by the user or buyer.

Arysta warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions.

This warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to Arysta, and is subject to the inherent risks described above.

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