

PM 21 1448-361

10/11

Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060. Approval expires 2-28-95



United States
Environmental Protection Agency
Washington, DC 20460

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

OPP Identifier Number
226690

Application for Pesticide - Section I

1. Company/Product Number 1448-361	2. EPA Product Manager Connie Welch	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Buckman Laboratories, Inc. / Busan 1236	PM# 21	
5. Name and Address of Applicant (Include ZIP Code) Buckman Laboratories, Inc. 1256 N. McLean Blvd. Memphis, TN 38108 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

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

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

Notification of Label Amendment per PR 93-10

Section - III

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

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Marty Martin	Title Asst. Regulatory Affairs Specialist	Telephone No. (Include Area Code) (901) 272-8539	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)	
2. Signature <i>Marty Martin</i>	3. Title Asst. Regulatory Affairs Specialist		
4. Typed Name Marty Martin	5. Date September 20, 1995		

11/20/11

BUSAN 1236

BUSAN is a registered trademark.

ACTIVE INGREDIENTS:
Sodium N-methylthiocarbamate
INERT INGREDIENTS:

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).

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

- Corrosive: causes skin damage. May be fatal if absorbed through skin. Do not get on skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.
- Harmful if swallowed
- Harmful if inhaled. Irritating to eyes, nose and throat. Avoid breathing vapor or spray mist.
- Irritating to eyes. Do not get in eyes.

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

STATEMENT OF PRACTICAL TREATMENT

FIRST AID: Immediately start the procedures given below and contact a Poison Center, a physician or the nearest hospital. Report the type and extent of exposure, describe the victim's symptoms and follow the advice given.
IF ON SKIN: Immediately flush skin with large amounts of running water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately.
IF IN EYES: Immediately flush eyes with large amounts of running water for at least 15 minutes. Hold eyelids apart to ensure rinsing of the entire surface of the eye and lids with water. Get medical attention immediately.
IF INHALED: Remove to fresh air. If not breathing clear the victim's airway and start mouth-to-mouth artificial respiration. If breathing is difficult, give oxygen, preferably with a physician's advise. Get medical attention immediately.
IF SWALLOWED: Immediately give several glasses of water, but do not induce vomiting. If vomiting does occur, give fluids again. Have a physician determine if condition of patient will permit induction of vomiting or evacuation of stomach. Do not give anything by mouth to an unconscious person.

STORAGE AND DISPOSAL

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

STORAGE: Do not expose to extreme temperatures. Do not stack more than 4 drums high. Leaking or damaged drums should be placed in overpack drums for disposal. Spills should be absorbed in sawdust or sand and disposed of in a sanitary landfill. Keep container closed when not in use.

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 your EPA Regional Office for guidance.

CONTAINER DISPOSAL: Triple rinse or equivalent. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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 requirements specific to your State or Tribe, consult the Agency for regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS). 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, notification and emergency assistance. It also contains specific instructions for agricultural workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS). Use this product only in accordance with its labeling and the Agriculture Use Requirements in the Directions for Use section for information on the following:

ENTRY RESTRICTIONS:

Outdoors: Entry (including early entry that would otherwise be permitted under the WPS) by other than a correctly trained and equipped handler who is performing a task specified in the labeling— is PROHIBITED from the start of application until 48 hours after application. If tarps are used for the application, non-handler entry is prohibited while tarps are in place.
NOTIFICATION: Notify workers of the application by warning them orally and by posting signs. The signs must bear the skull and crossbones symbols and state: (1) the name of the pesticide, (2) the date and time of fumigation, (3) the date and time of fumigation, (4) the name of the fumigant in use, and (5) name, address, and telephone number of applicator. Signs must be legible, size and timing of posting and removal.

Outdoors: Post the fumigant warning signs at entrances to treated areas.
PPE FOR ENTRY DURING THE RESTRICTED PERIOD: PPE for entry that is required is listed in the Hazards to Humans and Domestic Animals section of this label.

CHEMIGATION: Refer to Busan 1236 supplemental labeling for use directions. Do not apply this product through any irrigation system unless the supplemental labeling is followed.

LIMITED WARRANTY AND LIMITATION OF LIABILITY AND REMEDY: Seller warrants that this product conforms to its chemical description and is fit for the purpose referred to in the directions for use when used in accordance with the directions. Buyer assumes the risk of any use contrary to such directions. Seller makes no other warranty or representation of any kind, expressed or implied, including NO IMPLIED WARRANTY OF MERCHANTABILITY.

FOR ANY OTHER PARTICULAR PURPOSE. No such warranties shall be made. No part of this seller is authorized to alter this warranty in any way except in writing. The exclusive remedy against seller shall be a claim for damages resulting from the product, without regard to whether such a claim is based on contract or tort.

HMIS/NPCA RATING
Health 3 Flammability 1 Reactivity 1

Product
NET CONT
EPA Reg

Manufactured By EPA Est. No. 1448-TN-1, 1448-TN-1
BUCKMAN LABORATORIES, INC.
1256 N. McLEAN BLVD., MEMPHIS, TN 38103
(901) 278-0330 or 1-800-BUCKMAN

Manufactured by
Buckman Laboratories, Inc.
Memphis, Tennessee 38108, U.S.A.

NET CONTENTS: AS MARKED ON CONTAINER
EPA Reg. No. 1448-361
EPA Est. 1448-TN-1 EPA Est. 1448-MO-1

KEEP OUT OF REACH OF CHILDREN
DANGER PELIGRO

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- Harmful if swallowed
- Harmful if inhaled. Irritating to eyes, nose and throat. Avoid breathing vapor or spray mist.
- Irritating to eyes. Do not get in eyes.

Personal Protective Equipment (PPE)

(1) Handlers Performing Direct - Contact Task Direct contact task include:

- mixing, loading, or fumigant transfer with or without dry-disconnect fittings
- equipment calibration or adjustment
- equipment cleanup and repair
- product sampling
- application and soil sealing outside an enclosed cab
- any activity less than 6 feet from an unshielded pressurized hose containing this product
- Spill cleanup
- removal of tarp or plastic film
- rinsate disposal
- cleanup of small spills
- preparing containers for aeration
- any other handling task not otherwise listed in (2), (3), or (4) below

Applicators and other handlers performing direct-contact activities must wear:

- Coveralls over long-sleeved shirt and long pants,
- Waterproof gloves,
- Chemical-resistant footwear plus socks,
- Chemical-resistant headgear for overhead exposures,
- Chemical-resistant apron when cleaning equipment, or when mixing, loading, or transferring without dry-disconnect fittings,
- Face sealing goggles, unless full face respirator is worn,
- A respirator with either an organic-vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

(2) Handlers in Enclosed Cabs

Applicators and other handlers in enclosed cabs must wear:

- Coveralls
- Shoes and socks

Plus, if pungent, rotten-egg odor of this product can be detected inside the enclosed cab, the handlers in the cab must wear:

- Face sealing goggles, unless full face respirator is worn
- A respirator with either an organic-vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH) approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G). In addition, the PPE specified in (1) for direct-contact activities must be immediately available in the enclosed cab and must be worn if the handler leaves the enclosed cab to perform any direct-contact activity. The enclosed cab must meet the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides — 40 CFR 170.240(d)(5).

(3) Handlers in Treated Areas While Entry Is Restricted

While entry is restricted (see "Entry Restrictions" in the Agricultural Use Requirements box elsewhere in this labeling), only the following handling task may be performed in a treated area outdoors or in the entire greenhouse (or other enclosed structure) in which a treatment took place:

- Assessing/adjusting the soil seal
- Operating ventilation equipment
- Assessing pest control, application technique, or application efficacy
- Sampling air or soil for this product

All other tasks are prohibited until the entry restriction is over.

Handlers performing the above task must wear:

- Coveralls over long-sleeved shirts and long pants,
- Waterproof gloves
- Chemical-resistant footwear and socks

Plus: Handlers must wear (1) in a treated greenhouse before ventilation criteria have been met OR (2) if pungent, rotten egg odor of this product can be detected outdoors or in a treated greenhouse after ventilation criteria have been met:

- Face-sealing goggles (unless full-face respirator is worn) and
- A respirator with either an organic-vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

USER SAFETY REQUIREMENTS

User Safety Requirements:

- 1. Respirator Requirements:** When a respirator is required for use with this product, the following criteria must be met:
 - a. Cartridges or canisters must be replaced daily or when odor or irritation from this product becomes apparent, whichever is sooner.
 - b. Respirators must be fit-tested and fit-checked using a program that conforms to the OSHA requirements (described in 29 CFR Part 1910.134).
- 2. Dispose of Contaminated Clothing:** Discard clothing and other absorbent material that have been drenched or heavily contaminated with liquid from this product. Do not reuse them.
- 3. Clean and Maintain PPE:** Follow manufacture's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Wash PPE after each days use.

User Safety Recommendations

Users should:

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

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

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IF IN EYES: Immediately flush eyes with large amounts of running water for at least 15 minutes. Hold eyelids apart to ensure rinsing of the entire surface of the eye and lids with water. Get medical attention immediately.

IF INHALED: Remove to fresh air. If not breathing clear the victim's airway and start mouth-to-mouth artificial respiration. If breathing is difficult, give oxygen, preferably with a physician's advise. Get medical attention immediately.

IF SWALLOWED: Immediately give several glasses of water, but do not induce vomiting. If vomiting does occur, give fluids again. Have a physician determine if condition of patient will permit induction of vomiting or evacuation of stomach. Do not give anything by mouth to an unconscious person.

STORAGE AND DISPOSAL

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

STORAGE: Do not expose to extreme temperatures. Do not stack more than 4 drums high. Leaking or damaged drums should be placed in overpack drums for disposal. Spills should be absorbed in sawdust or sand and disposed of in a sanitary landfill. Keep container closed when not in use.

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 your EPA Regional Office for guidance.

CONTAINER DISPOSAL: Triple rinse or equivalent. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

USE PRECAUTIONS

Keep children and pets out of treated area. Keep off desirable lawns and plants. Do not apply within 3 feet of the drip line of desirable plants, shrubs or trees. Do not use in confined areas or where fumes may enter nearby houses. Do not use in greenhouses. Keep container tightly closed when not in use.

PRODUCT INFORMATION

Busan 1236 is a water-soluble liquid. When applied to properly prepared soil, the liquid is converted into a gaseous fumigant. After a sufficient waiting period, the gas dissipates, leaving the soil ready for planting. Busan 1236 is recommended for the control of weeds, plant parasitic nematodes, and soilborne fungi that cause reductions in the yield and quality of ornamental, food, and fiber crops.

Busan 1236 will control only those pests in the fumigation zone at the time of treatment. Recontamination may occur subsequent to the fumigant's dissipation from the soil.

Weeds and germinating weed seeds that are controlled include grasses (annual bluegrass, Bermuda grass, water grass, Johnson grass), sedges (nutgrass), composites (dandelion, ragweed), pinks (chickweed), mints (henbit), goosefoots (lambsquarters), amaranths (pigweed, careless weed), convolvulus (wild morning glory), purslanes, and nightshades. The best weed control is obtained when Busan 1236 is applied to weeds that are in an active vegetative growth phase.

The **plant parasitic nematodes** which Busan 1236 controls include root knot, lesion, dagger, lance, needle, pin, reniform, stunt, stubby root, sting, and spiral. Note: In Oregon and Washington, Busan 1236 will only suppress *Meloidogyne chitwoodi*.

The **plant pathogenic fungi** controlled include species of *Verticillium*, *Rhizoctonia*, *Pythium*, *Phytophthora*, *Sclerotinia*, as well as *Sclerotium rolfsii*, *Armillaria mellea* (Oak root fungus), and *Plasmodiophora brassicae* (Club root fungus).

BUSAN 1236 TREATMENT GUIDELINES

For optimum results from soil fumigation with Busan 1236, certain procedures should be observed at designated times in the treatment program. Described in this section are important guidelines for each of the four stages of the treatment process:

- Planning a Busan 1236 application
- Preparing a field for application applying Busan 1236
- Applying Busan 1236
- Preparing for planting after application of Busan 1236.

Your Buckman Laboratories representative will help you select the best treatment program for your particular needs.

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.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR 170. This Standard contains requirements for the protection of agricultural workers on farms, forest 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 in this labeling about personal protective equipment, 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).

ENTRY RESTRICTIONS:

Outdoors: Entry (including early entry that would otherwise be permitted under the WPS) by any person-- other than a correctly trained and equipped handler who is performing a handling task permitted on this labeling-- is PROHIBITED from the start of application until 48 hours after application. In addition, if tarps are used for the application, non-handler entry is prohibited while tarps are being removed.

NOTIFICATION: Notify workers of the application by warning them orally and by posting fumigant warning signs. The signs must bear the skull and crossbones symbols and state: (1) DANGER/PELIGRO, (2) Area under fumigation, DO NOT ENTER/NO ENTRE, (3) the date and time of fumigation, (4) BUSAN 1236 Fumigant in use, and (5) name, address, and telephone number of applicator. Post the fumigant warning signs instead of the WPS sign for this application, but follow all WPS requirements pertaining to location, legibility, size and timing of posting and removal.

Outdoors: Post the fumigant warning signs at entrances to treated areas.

PPE FOR ENTRY DURING THE 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.

General Precautions for Irrigation Systems

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes, or any public area such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) where chemigated area is open to public such as golf courses or retail green houses.

Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs should be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain

legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol of at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDE IN IRRIGATION WATER.

This sign is in addition to any sign posted to comply with the Worker Protection Standard

Planning a Busan 1236 Application

Time of Application

Busan 1236 is applied after harvest and 21 days before a new crop is planted. In some area of North America, fall applications are preferred because the fumes dissipate over the winter, allowing planting to begin as soon as favorable springtime conditions arrive.

Application Over Cover Crops

Busan 1236 can be applied through sprinkler irrigation systems over cover crops such as alfalfa, clover, and such grasses as rye, oats, wheat, and sudan grass. When the product is applied over cover crops, no cultivation of the soil is required before the application of Busan 1236.

Application Rate

Apply 14 to 72 gallons of Busan 1236 per treated acre depending on crop, target pest, and soil properties. Soil properties to consider when determining the application rate include the depth of soil to be treated, soil texture, and percent organic matter.

Target Pest and Depth of Treatment

For control of weeds and fungi causing seed or seedling diseases, treatment of only the top 2 to 4 inches of soil may be required. For control of nematodes and fungi which occur throughout the rhizosphere, treatment to depths greater than 4 inches may be required. For a given soil type, the required application rate will increase proportionately with the depth of treatment required. For example, if 25 gallons of Busan 1236 per acre is required to treat 4 inches, then 50 gallons of Busan 1236 will be required to treat to a depth of 8 inches. Choose the appropriate application method to distribute Busan 1236 evenly throughout the soil to the required depth.

Organic Matter in the Soil

Except in the case of cover crops, plant material under the soil surface should be thoroughly decomposed before Busan 1236 is applied. Because of the absorbing effect of humus, soils with high levels of organic matter under the surface require higher than usual doses of Busan 1236. For example, muck soils require twice the amount of fumigant that would be used in mineral soils.

Soil Texture

Application rates will vary with the soil texture. For instance, heavy clay soils require more Busan 1236 than light sandy soils.

Preparing a Field for Application

Soil Cultivation

Cultivate the soil thoroughly before treatment, breaking up all large clods. If the soil crusts following pretreatment irrigation, lightly cultivate it again before treatment with Busan 1236.

Soil Temperature During Treatment

At the time of fumigation, the soil temperature should be in the range of 40° - 90°F (4° - 32°C) at a depth of 3 inches.

To prevent rapid evaporation of the product from the soil, avoid treating soil during times of the day when soil temperatures exceed 90°F (32°C). Instead, make the application during the early morning hours when the soil temperature is coolest.

Measuring the Soil Moisture

Application should be made under "good seed bed moisture conditions"; that is, the soil moisture should be about 50 – 80 percent of field capacity. As a simple field test, squeeze a handful of soil into a ball and then gently try to break it apart with your fingers. If it breaks easily, the soil moisture content is sufficient. If it will not break apart or if water can be squeezed out, it is too wet. When necessary, 1–2 weeks prior to treatment sprinkle or flood, irrigate the soil to increase the moisture content. The soil must be moistened to at least the desired treatment depth.

Area To Be Treated

Busan 1236 can be applied either broadcast or in bands, depending on the crop to be planted. For example, in the production of row crops, band applications are most economical.

Phytotoxicity

Busan 1236 is phytotoxic. Protect valuable, non-target plants by stopping soil applications of Busan 1236 at least 3 feet short of the drip line of trees, shrubs, and other desirable plants. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

Applying Busan 1236

Busan 1236 may be applied by chemigation, soil injection, disc, rotary tiller, power mulcher, and soil covering methods.

Use of Diluted Busan 1236

DO NOT STORE THE DILUTED PRODUCT. Use Busan 1236 promptly after it has been mixed with water. In dilute solutions in water, Busan 1236 decomposes over a period of weeks. Although Busan 1236 is stable in its concentrated form, it is unstable in acid dilutions.

Odors During Treatment

Strong odors during or after treatment are a signal that the fumigant is escaping and needs to be sealed in the soil.

Sealing Busan 1236 in Soil

To be most effective, Busan 1236 should be sealed in the soil. Sealing methods include applying irrigation water or plastic tarpaulins and packing soil with a roller or drag. Tarpaulins should be spread loosely over the treated area and secured to prevent removal by wind. They should remain in place for at least 48 hours. Seven days after treatment, the sealed area should be cultivated to a depth of 2 inches to aerate the soil. When tarpaulins are used to seal the soil, wait at least 21 days before planting.

Chemigation--General Precautions

When applying by chemigation methods the following precautions must be observed:

1. Apply this product only through the following types of systems: sprinkler including center pivot, lateral move, end row, side (wheel) roll, traveler, big gun, solid set, or hand move; flood (basin); furrow; border; or drip (trickle) irrigation system(s). Do not apply this product through any other type of irrigation system.
2. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.
3. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

- 4. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- 5. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Chemigation Systems Connected to Public Water Systems

A "public water system" is one that provides piped water for human consumption to the public; and the system also either has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days a year.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventor (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 should 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 measuring at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock. This valve prevents fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to shut off the pesticide injection pump automatically when the water pump motor stops. In cases where there is no water pump, controls on the pesticide injection pump are also needed when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Field Application—Where Entire Area Is Being Treated

CALIFORNIA ONLY

Application Must Be In Compliance With Technical Information Bulletin-California "Application Guidelines For California When Applying Metam Sodium Through Sprinkler Irrigation Systems." This Information Bulletin May Be Obtained From Your Local Pesticide Dealer or Metam Sodium Registrant.

● **Chemigation Methods**

Sprinkler Chemigation: Use 35 to 72 gallons Busan 1236 per acre for control of nematodes and fungi at a depth of 24 inches. For control of weeds and fungi at a depth of 6 inches or less, use 14 to 72 gallons per acre. Inject the Busan 1236 in enough water to reach the desired treatment depth. The product should be continuously metered into the irrigation system throughout the entire application period. Flush the system with only enough water to clear lines. If the soil surface dried quickly, reseal it with 15 minutes of water once a day for the next day or two.

Use sprinkler systems that give uniform coverage. Apply only through central pivot or solid set sprinkler irrigation systems containing antisiphon and check valves which will prevent water source contamination and overflow of the slurry tank. 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 from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must also contain interlocking controls between the metering device and the water pump to ensure simultaneous shut-off. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

● Drift Prevention

Do not apply when wind speed favors drift beyond the area intended for treatment.

● Effect of Air Temperature and Winds on Sprinkler Application

When using a sprinkler application method, apply Busan 1236 only when the air temperature is below 90°F (32°C). This precaution is recommended to guard against evaporation of the product. Either low humidity or high winds can also cause the evaporation of Busan 1236 before it can be drenched into the soil. To prevent wind drift of the fumigant, apply only when wind conditions are suitable.

● Runoff of Treatment Solution

To prevent runoff of treatment solution during sprinkler application, do not exceed the infiltration rate of the solution into the soil. Should runoff occur, isolate it from growing crops and water sources. Once collected, reapply it to the treated area.

Check, Flood (Basin), Furrow and Border Chemigation: Meter Busan 1236 at a steady rate into water during irrigation. Depending upon the kind of pest and the treatment depth desired, use 14 to 72 gallons of Busan 1236 per acre in 3 to 18 inches of water per acre.

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity, such as a drop structure or weir box, to decrease the potential for contaminating the water source from backflow should the water flow stop.

Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

1. 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 from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

● Other Field Application Methods

Soil Injection: Use chisel or shank-type injectors to apply 14 to 72 gallons of Busan 1236 per acre into well prepared soil. Seal immediately after treatment.

Disc Applied Method: Spray dilute Busan 1236 immediately in front of disc. Use 14 to 72 gallons per acre. Follow immediately with a roller to smooth and compact the soil surface.

● Application on Beds or Rows Chemigation Methods

Drench Method: Busan 1236 may be applied to finished beds in enough water to soak at least 2 inches deep for control of shallow seeded weeds. To avoid contamination by untreated soil, do not disturb the treated area. Apply 14 to 72 gallons of Busan 1236 per treated acre.