



United States  
**Environmental Protection Agency**  
 Washington, DC 20460

Registration  
 Amendment  
 Other

OPP Identifier Number

**Application for Pesticide - Section I**

1. Company/Product Number <i>1448-361</i>	2. EPA Product Manager Mary Waller	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) BUSAN 1236	PM# 21	
5. Name and Address of Applicant (Include ZIP Code) Buckman Laboratories, Inc. 1256 North 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 _____	<b>NOTIFICATION</b>  APR 09 2003
<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 Alternate Trade Name: BL-1480

**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		<input type="checkbox"/> Metal	<input type="checkbox"/> Plastic
				<input type="checkbox"/> Glass	<input type="checkbox"/> Paper
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	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"/>	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph Paper glued 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 Jody L. Stobbe	Title Senior Regulatory Specialist	Telephone No. (Include Area Code) 901-272-8550
<b>Certification</b> 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>Jody L. Stobbe</i>	3. Title Senior Regulatory Specialist	
4. Typed Name Jody L. Stobbe	5. Date <i>5/31/03</i>	

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# Buckman LABORATORIES

BUCKMAN LABORATORIES INTERNATIONAL, INC.  
Research & Development

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05/27/03

### FACSIMILE TRANSMISSION

ATTENTION	COMPANY	FAX NUMBER
Joyce Edwards	EPA - OPP	703-305-6920

NUMBER OF PAGES INCLUDING THIS SHEET: 2 IF YOU DO NOT RECEIVE ALL PAGES, PLEASE ADVISE.

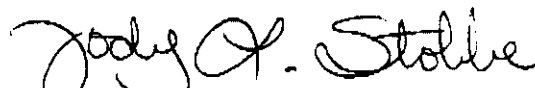
**MESSAGE:**

Dear Ms. Edwards:

Per your request, attached is the PR Notice 98-10 Certification Statement for the addition of BL-1480 as an alternate trade name to the BUSAN 1236 registration (EPA Reg. #1448-361).

This statement was included on the cover letter for this application. Please accept my apologies for not including it on the EPA Form 8570-1.

Sincerely,  
BUCKMAN LABORATORIES INTERNATIONAL, INC.



Jody L. Stobbe  
Senior Regulator Specialist

# BL-1480

## ACTIVE INGREDIENTS:

Sodium N-methylrhodanamate

42.5%

INERT INGREDIENTS

57.5%

Total Ingredients 100.0%

## KEEP OUT OF REACH OF CHILDREN DANGER PELIGRO

SI Usado no entienda la etiqueta, busque a alguien para que se le explique o uselo 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

- Causes skin damage. May be fatal if absorbed through skin. Do not get on skin or clothing.
- Irritates or frequently repeated skin contact may cause allergic reactions in some individuals.
- Harmful if swallowed.
- Irritating to eyes. Avoid breathing vapor or spray mist.
- Irritating to eyes. Do not get in eyes.

#### PERSONAL PROTECTION EQUIPMENT (PPE) FOR NON-WPS (non-agricultural) USES

See label for PPE requirements for non-WPS or non-agricultural uses.

#### Handlers Performing Direct Contact Task

- Direct contact task includes:
  - mixing, loading, or fumigant transfer with or without dry-disconnect fittings
  - equipment calibration or adjustment
  - equipment cleanup and repair
  - product sampling
  - field repair
  - field maintenance

#### Applications and other handlers performing direct-contact activities must wear:

- Clean, dry, long-sleeved shirt and long pants.
- Coveralls over long-sleeved shirt and long pants.
- Chemical resistant footwear plus socks.
- Chemical resistant headgear for overhead exposures.
- Protective apron when cleaning equipment, or when mixing, loading, or transferring without dry-disconnect fittings.
- Face shield, goggles, or a full face respirator is worn.
- A full body suit with either an organic vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C7) or a cartridge approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

#### USER SAFETY REQUIREMENTS

- Respirator Requirements: When a respirator is required for use with this product, the following criteria must be met:
  - Cartridges or canisters must be replaced daily or when odor or irritation from this product becomes apparent, whichever is sooner.
  - Respirators must be fit tested and fit checked using a program that conforms to the OSHA requirement 1910.134.
- Disposal of Contaminated Clothing: Disposed clothing and other absorbent material that have been used with this product must be sealed with tape from this product. Do not reuse this clothing.
- Cleaning and Maintenance: Clean and maintain this equipment as directed on the label. Do not use such instructions for washables, use, detergents and hot water. Keep and wash PPE separately from other laundry. Wash PPE after each day's use.

#### User Safety Recommendations

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately after handling this pesticide gets 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 apply directly to water, to areas where surface water is present, or to wetlands areas below the mean high water mark. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, coastal waters, or public waters unless in accordance with the requirements of the National Pollution 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 adequate treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

**STATEMENT OF PRACTICAL TREATMENT:** 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. Get medical attention immediately. IF SWALLOWED: Rinse mouth with water. Do not induce vomiting. 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 a condition of patient will permit induction of vomiting or evaluation 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. 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. Do not reuse or refill this container. For information on the disposal of this product, contact your local, state, or Federal law enforcement authority or the Hazardous Waste Operations and Emergency Response (HWEP) representative at your EPA Regional Office for guidance.

### CONTAINER DISPOSAL:

Triple rinse or equivalent. Then offer for recycling or reconditioning, or purchase 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 to a surface or in a manner that causes drift, other directly or through drift. Only untested handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the Agency responsible for pesticide regulation. THIS PRODUCT IS NOT TO BE SOLD OR USED FOR AGRICULTURAL PURPOSES IN THE FOLLOWING COUNTIES OF TEXAS: ATASCOSA, CAMERON, DUVAL, HIDALGO, MAVERICK, STARR, WILLACY, ZAPATA.

### AGRICULTURAL TREATMENT GUIDELINES:

See the supplemental labeling entitled "A Multipurpose Soil Insecticide" for use directions. Do not apply this product unless the supplemental labeling is followed.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS) § 170. The Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and for handlers of agricultural pesticides. It also contains specific instructions, decontamination, notification, and emergency assistance. It also contains specific instructions, exceptions, 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). Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS) § 170. Refer to supplemental labeling under "Agricultural Use Restrictions" in the Directions for Use section for information about this standard.

### ENTRY RESTRICTIONS:

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 the labeling is PROHIBITED from the start of application until 48 hours after application. In addition, if traps are used for the application, non-handler entry is prohibited while traps are being removed.

### NOTIFICATION:

Notify workers of the application by warning them orally and by posting warning signs in accordance with the Worker Protection Standard (WPS) § 170.22. (b) (4) and (b) (4)(ii) of the Standard. (4) the date and time of fumigation, (5) BL-1480 42.5% WP, and (6) the number of applicator. Post the WPS sign in compliance with 40 CFR § 170.22 and follow all WPS requirements pertaining to location, legibility, color, 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 the labeling is listed in the Hazards to Humans and Domestic Animals section of this labeling.

**NON-AGRICULTURAL USE REQUIREMENTS**  
The requirements in this box apply to uses of the product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when the product is used in the following circumstances: (1) the product is used in the "HAZARDS TO HUMANS AND DOMESTIC ANIMALS" section of the label entitled, "PERSONAL PROTECTION EQUIPMENT (PPE) FOR NON-WPS (non-agricultural) USES";

**WOOD TREATMENT:** BL-1480 is a liquid used to control terminal decay in posts, pilings, and similar large timber members. Timber known to have internal decay should be scheduled for treatment before it has decayed to the point where replacement is necessary. A groundline area of 40 sq cm (approx.) starting 10 cm (4 in) above the groundline and extending 10 cm (4 in) from the edge of the post, pile, or piling should be treated in diameter and a length of 2.12 times the radius of the end of the post or pile, whichever is greater. The first hole should be at the groundline and subsequent holes about 6 to 12 inches (15 to 30 cm) apart. The holes should be at the groundline and spaced equal amounts of the fumigant into all holes using a 1/2 pint per hole on the average. Plug the holes with treated wood plugs.

### LIMITED WARRANTY AND LIMITATION OF LIABILITY AND REMEDIES

Seller warrants that this product conforms to its chemical description and is reasonably fit for the purpose intended in the directions for use when used in accordance with the directions under normal conditions. Seller assumes no liability for such applications or resulting from adverse weather conditions. Seller warrants that this product is free from adulteration and is fit for the purpose intended. Seller makes no warranty, expressed or implied, of MERCHANTABILITY OR FITNESS OF THE GOODS FOR ANY OTHER PARTICULAR PURPOSE. No such warranties shall be implied by law and no agent of seller is authorized to alter this warranty in any way except in writing with a specific reference to this warranty. The exclusive remedy against seller shall be a claim for damages not to exceed the purchase price of the product, without regard to whether such a claim is based upon breach of warranty or not.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS) § 170. The Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and for handlers of agricultural pesticides. It also contains specific instructions, decontamination, notification, and emergency assistance. It also contains specific instructions, exceptions, 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). Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS) § 170. Refer to supplemental labeling under "Agricultural Use Restrictions" in the Directions for Use section for information about this standard.

### ENTRY RESTRICTIONS:

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 the labeling is PROHIBITED from the start of application until 48 hours after application. In addition, if traps are used for the application, non-handler entry is prohibited while traps are being removed.

### NOTIFICATION:

Notify workers of the application by warning them orally and by posting warning signs in accordance with the Worker Protection Standard (WPS) § 170.22. (b) (4) and (b) (4)(ii) of the Standard. (4) the date and time of fumigation, (5) BL-1480 42.5% WP, and (6) the number of applicator. Post the WPS sign in compliance with 40 CFR § 170.22 and follow all WPS requirements pertaining to location, legibility, color, 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 the labeling is listed in the Hazards to Humans and Domestic Animals section of this labeling.

Health 3	Flammability 1	Reactivity 1
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Product Weight 10.1 lbs/gal, 1.21 kg/L  
NET CONTENTS MARKED ON CONTAINER  
EPA Reg. No. 144B-361

Manufactured by EPA Est. No. 144B-TH-1, 144B-MO-1  
**Buckman Laboratories, Inc.**  
1256 N. McLain Blvd., Memphis, Tennessee 38108 U.S.A.  
(901) 278-0330 or 1-800-BUCKMAN

1-800-3

**BL-1480**  
**A Multipurpose Soil Fumigant**



3/22

# A Multipurpose Soil Fumigant BL-1480

**ACTIVE INGREDIENT:**

Sodium N-methyl dithiocarbamate ..... 47.5%  
INERT INGREDIENTS ..... 52.5%  
100.0%

This product contains 4.3 lb. of active ingredient per gallon and weighs 10.1 lb. per gallon.

THIS PRODUCT IS NOT TO BE SOLD IN THE FOLLOWING COUNTIES OF TEXAS: ATASCOSA, CAMERON, DUVAL, HIDALGO, MAVERICK, STARR, WILLACY, ZAPATA.

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

IT IS THE RESPONSIBILITY OF THE USER TO READ THIS LABEL AND USE THIS PRODUCT ACCORDINGLY.

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

**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.

**Worker Protection Standards (WPS) for applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard (40 CFR Part 170):**

**Personal Protective Equipment (PPE)**

**(1) Handlers Performing Direct-Contact Tasks—**

**Direct-contact tasks 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
- Rinstate disposal
- Cleanup of small spills
- Preparing containers for aeration
- Any other handling tasks not otherwise listed in (2) or (3) 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 tasks may be performed in a treated area outdoors 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 tasks must wear:

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

**Plus:** Handlers must wear if pungent, rotten egg odor of this product can be detected outdoors 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**

**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 manufacturer'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 day's use.

**User Safety Recommendations:**

**Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets 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.

**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.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish. Do not contaminate water when disposing of equipment washwaters or rinsate. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high-water mark. Do not 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.

**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 four 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 three 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**

**CALIFORNIA ONLY**

Application must be in compliance with Technical Information Bulletin-California: "Guidelines for All Application Methods for Metam-Sodium in California." This information bulletin may be obtained from your local pesticide dealer or Metam-Sodium registrant.

BL-1480 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. BL-1480 is recommended for the suppression of weeds and the control of plant parasitic nematodes, and soilborne fungi that cause reductions in the yield and quality of ornamental, food, and fiber crops.

BL-1480 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 suppressed 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 suppression is obtained when BL-1480 is applied to weeds that are in an active vegetative growth phase.

The **plant parasitic nematodes** which BL-1480 controls include root knot, lesion, dagger, lance, needle pin, reniform, stunt, stubby root, sting, and spiral. Note: In the Northwest, BL-1480 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 *Plasmiodiophora brassicae* (Club root fungus), *Phoma (Pyrenochaeta) terrestris* (Pink Root), *Cylindrocladium crotalariae* (Cylindrocladium Black Rot).

## BL-1480 TREATMENT GUIDELINES

For optimum results from soil fumigation with BL-1480, 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 BL-1480 application
- Preparing a field for application of BL-1480
- Applying BL-1480
- Preparing for planting after application of BL-1480.

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 warning signs. The signs must state: (1) DANGER/PELIGRO, (2) PESTICIDES/PESTICIDAS, (3) KEEP OUT/NO ENTRE, (4) the date and time of fumigation, (5) BL-1480, 42.5% active, and (6) name, address, and telephone number of applicator. Post the WPS sign in compliance with 40 CFR Part 170, and follow all the WPS requirements pertaining to location, legibility, color, 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) when chemigated area is open to public such as golf courses.

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 toward 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 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.

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### Planning a BL-1480 Application

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#### *Time of Application*

BL-1480 is applied after harvest and not less than 21 days before a new crop is planted. In some areas 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 Rate**

Apply 14 to 72 gallons of BL-1480 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.

BL-1480 can be used at 22 and 37 gallons per treated acre before or following the use of Telone II. A minimum of a 14 day interval must be observed between the application of the products.

**Target Pest and Depth of Treatment**

For control of 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 BL-1480 per acre is required to treat 4 inches, then 50 gallons of BL-1480 will be required to treat to a depth of 8 inches. Choose the appropriate method to distribute BL-1480 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 BL-1480 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 BL-1480. 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 BL-1480 than light sandy soils.

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**Preparing a Field for Application**

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**Soil Cultivation**

Cultivate the soil thoroughly before treatment, breaking up all large clods. If the soil crusts following pre-

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treatment irrigation, lightly cultivate it again before treatment with BL-1480.

### ***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% 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***

BL-1480 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***

BL-1480 is phytotoxic. Protect valuable, non-target plants by stopping soil applications of BL-1480 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 BL-1480.

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### ***Applying BL-1480***

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BL-1480 may be applied by chemigation (but not sprinkler irrigation), soil injection, disc, rotary tiller, power mulcher, and soil covering methods.

**Use of Diluted BL-1480**

DO NOT STORE THE DILUTED PRODUCT. Use BL-1480 promptly after it has been mixed with water. Although BL-1480 is stable in its concentrated form, in dilute solutions in water BL-1480 decomposes over a period of weeks.

**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. If increasingly strong odors are occurring, the application should be stopped immediately and not resumed until after the source of the odor is identified and corrected. Whenever possible, a water seal should be applied immediately to the treated areas of the field.

**Sealing BL-1480 in Soil**

To be most effective, BL-1480 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.

**APPLICATION METHODS**

**1) CHEMIGATION METHODS**

**PRECAUTIONARY STATEMENTS**

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

**• GENERAL**

- A. Apply this product only through the following types of systems: flood (basin); furrow; border; or drip (trickle) irrigation system(s). Do not apply this product through any other type of irrigation system, such as sprinklers.
- B. Crop injury or lack of effectiveness can result from nonuniform distribution of treated water.
- C. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

- D. 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.
- E. 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.

• **Runoff of Treatment Solution**

To prevent runoff of treatment solution during 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.

**BROADCAST CHEMIGATION METHODS**

• **Check, Flood (Basin), Furrow and Border Chemigation:** Meter BL-1480 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 BL-1480 per treated 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.

and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

- **Drench Method:** BL-1480 may be applied to finished beds in enough water to soak at least 2 inches deep for suppression of shallow seeded weeds. To avoid contamination by untreated soil, do not disturb the treated area. Apply 14 to 72 gallons of BL-1480 per treated acre.

**2) OTHER FIELD APPLICATION METHODS**

**BROADCAST METHODS**

• **INJECTION METHOD**

**Soil Injection:** Use chisel or shank-type injectors to apply 14 to 72 gallons of BL-1480 per acre into well prepared soil. Follow immediately with a bedshaper, roller press wheel, or similar device, or cover with an adequate amount of soil to seal the fumigant into the soil.

• **INCORPORATION METHODS**

**Disc or Plow Applied Method:** Apply dilute BL-1480 immediately under disc or plow. Use 14 to 72 gallons per treated acre. Follow immediately with a bedshaper, roller press wheel, or similar device, or cover with an adequate amount of soil to seal the fumigant into the soil.

**Rotary Tiller or Power Mulcher:** Apply dilute BL-1480 immediately in front of tiller or mulcher. Use 14 to 72 gallons per treated acre. Follow immediately with a bedshaper, roller press wheel, or similar device, or cover with an adequate amount of soil to seal the fumigant into the soil.

**BAND, BED OR ROW METHODS**

• **INJECTION METHOD**

**Soil Injection:** BL-1480 can be injected into pre-formed plant beds using chisel or shank-type injectors. If a wider treated band is desired, space 2 or more shanks to cover the desired treating width. Use 14 to 72 gallons per treated acre. Follow immediately with a bedshaper, roller press wheel, or similar device, or cover with an adequate amount of soil to seal the fumigant into the soil.

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• **INCORPORATION METHODS**

**Rotary Tiller or Power Mulcher:** Apply dilute BL-1480 immediately in front of tiller or mulcher. Use 14 to 72 gallons per treated acre. Follow immediately with a bedshaper, roller press wheel, or similar device, or cover with an adequate amount of soil to seal the fumigant into the soil.

**Soil Covering Methods (Bed-over methods):** BL-1480 may be applied onto the soil immediately ahead of bed-shaping equipment. The recommended rate of BL-1480 is 14 to 72 gallons per treated acre. Follow immediately with a bedshaper, roller press wheel, or similar device, or cover with an adequate amount of soil to seal the fumigant into the soil.

BL-1480 may be applied to prepared or unprepared sites as a coarse drench treatment in a band using standard tractor application equipment. Use 55 to 72 gallons of product per treated acre. Apply irrigation water while application is taking place and continue until enough water has been applied to drive the BL-1480 to the minimum depth of two feet. Do not apply more than one inch of irrigation water. The soil should be at 50–80% field capacity at the time of application. Because BL-1480 is harmful to plants, an appropriate interval must be observed between soil fumigation and planting. Planting can only begin 21 days (minimum) after treatment.

• **REPLANT METHOD**

Use 18 to 24 fl. oz of BL-1480 per 100 gallons of water. Use 16 gallons of this mixture per 4' x4' treated area. More water and/or product may be necessary to treat different sized areas to ensure product movement to desired depth.

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**Preparing for Planting After Application of BL-1480**

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***Effect of Rain***

If a BL-1480 application is rained on less than 24 hours after treatment, lack of control at and near the soil surface may result.

***Recontamination***

Precautions must be taken to prevent recontamination of treated soil with plant pathogenic fungi and plant

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parasitic nematodes. Use clean seeds and plants. Before farm equipment is driven into the treated area, it should be rinsed free of the untreated soil from other fields.

***Interval Between Treatment and Planting***

Because BL-1480 is harmful to living plants, an appropriate interval must be observed between soil fumigation and planting. On well drained soils which have a light to medium texture and which are not excessively wet or cold following application, planting can begin 14–21 days after treatment. If soils are heavy or especially high in organic matter, or if they remain wet and/or cold (below 60°F or 15°C) following application, a minimum interval of 30 days should be observed.

***Aeration Before Planting***

Soils, including soils high in clay or organic matter, should be allowed to aerate and dry thoroughly after treatment with BL-1480. During cold and/or wet weather, frequent shallow cultivation can aid in the escape of BL-1480 from the soil.

***Testing for Dissipation of BL-1480***

After the waiting period has passed, if there is any question about the complete escape of BL-1480 from the soil, transplant several seedlings into the treated soil. If the plant develops normally without any signs of chemical injury, crop planting can begin. For assistance in testing for dissipation of BL-1480, contact your Buckman representative.



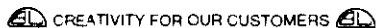
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**LIMITED WARRANTY  
AND LIMITATION  
OF LIABILITY AND REMEDIES**

Seller warrants that this product conforms to its chemical description and is reasonably fit for the purpose referred to in the directions for use when used in accordance with the directions under normal conditions. Buyer assumes the risk of any use contrary to such directions or resulting from extreme weather conditions. Seller makes no other warranty or representation of any kind, express or implied, concerning the product, including **NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS OF THE GOODS FOR ANY OTHER PARTICULAR PURPOSE.** No such warranties shall be implied by law and no agent of seller is authorized to alter this warranty in any way except in writing with a specific reference to this warranty. The exclusive remedy against seller shall be a claim for damages not to exceed the purchase price of the product, without regard to whether such a claim is based upon breach of warranty or tort. Any controversy or claim arising out of our relating to this contract, or breach thereof, shall be settled by arbitration in accordance with the commercial arbitration rules of the American Arbitration Association, and judgement upon the award rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof.

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