



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D C 20460

SEP 23 1993

Tom Duafala, Ph.D.
Trical
P.O. Box 1327
Hollister, CA 95024

OFFICE OF
PREVENTION PESTICIDES AND
TOXIC SUBSTANCES

Dear Dr. Duafala:

Subject: Request to Amend Telone Registrations in Response to
Telone Final Agreement
Tri-Form 40/60
EPA Registration No. 11220-15
Tri - Form 15
EPA Registration No. 11220-20
Tri-Form 30
EPA Registration No. 11220-21
Your Submissions Dated September 1, 1993

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable provided that you:

1. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:

a. In the Hazards to Humans section incorporate the following statements required for chloropicrin:

This fumigant has the capacity to cause marked irritation to the upper respiratory tract. A strong lachrymator (tear-producing eye irritant). Low concentrations are capable of causing painful eye irritation. The effect may be so powerful that a person may become temporarily blinded and panic-stricken. That, in turn, may lead to accidents.

b. Following the Hazards to Humans section add the following section:

AIR CONCENTRATION LEVEL

The acceptable air concentration level for persons exposed to chloropicrin is 0.1 ppm (0.7 mg/M³). The air concentration level is measured by a direct reading detection device, such as a Matheson-Kitagawa, Draeger, or Sensidyne.



Recycled/Recyclable
Printed with Soy/Canola Ink on paper that
contains at least 50% recycled fiber

c. In the Restricted Use Block delete "DUE TO ACUTE TOXICITY". This phrase is misleading since according to the 1,3-dichloropropene Registration Standard this chemical was made a restricted use pesticide due to its acute toxicity and its carcinogenicity.

d. Delete the new section with the heading SHIPMENT in the Storage and Disposal Section. Although in the past we have allowed Department of Transportation shipping label requirements to appear on pesticide labeling, we have not verified that the proposed wording is accurate or appropriate for pesticide labeling.

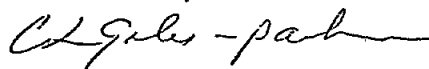
2. Submit one (1) copy of your final printed labeling before you release the product for shipment.

A stamped copy of the labeling is enclosed for your records.

The amended labeling supersedes all previously accepted labeling. The effective dates for the new label requirements is June 30, 1993. Please note that any product not bearing the approved labeling in accordance with the October 7, 1992 Final Agreement will be considered misbranded and will be subject to enforcement action.

This acceptance of your label does not relieve you of your obligation to comply with the Worker Protection Standard (WPS). Under the WPS labeling regulations at 40 CFR Part 156, Subpart K, § 156.200(c)(3), you are prohibited from distributing or selling any product within the scope of the WPS requirements after April 21, 1994, without amended labeling accepted by the Agency. This product is subject to the Worker Protection Regulations and its compliance dates and you must make these label changes in accordance to its requirements.

Sincerely yours,



Cynthia Giles-Parker
Product Manager (22)
Fungicide-Herbicide Branch
Registration Division (H7505C)

Enclosure

cc: Lisa Engstrom
Special Review Branch
Special Review and Reregistration Branch (H7508W)

3915

**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.

TRI-FORM 40/60

PREPLANT SOIL FUMIGANT

ACTIVE INGREDIENTS:

1,3-Dichloropropene 37.6%
Chloropicrin 59.4%

INERT INGREDIENTS:

3.0%

100.0%

Contains 4.51 pounds of 1,3-dichloropropene and 7.13 pounds of chloropicrin per gallon.

KEEP OUT OF REACH OF CHILDREN

DANGER



PELIGRO

POISON

NOTICE: Read the entire label. Use only according to label directions. Refer to inside of label booklet for Direction for Use including Storage, and Disposal and additional precautionary information including requirements for Personal Protective Equipment (PPE).

**IN ALL CASES OF OVEREXPOSURE GET -
MEDICAL ATTENTION IMMEDIATELY.
TAKE PERSON TO A DOCTOR OR TO AN
EMERGENCY TREATMENT FACILITY.**

FIRST AID

IF INHALED: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.

IF ON SKIN: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. If water is not immediately available, remove excess chemical from skin with adsorbent material such as toweling or dry soil, then proceed at once to a location where water is available and thoroughly wash contaminated skin with plenty of water. Call a physician.

IF IN EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

IF SWALLOWED: Do not induce vomiting. Call a physician or Poison Control Center immediately. Never give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Because rapid absorption may occur through lungs if product is aspirated and causes systemic effects, the decision to induce vomiting or not should be made by a physician. If lavage is performed, endotracheal and/or esophageal control is suggested. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach.

See Side Panel For Additional Precautionary Statements.

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

SEP 23 1993

Under the Federal Insecticide
Fungicide, and Rodenticide Act
approved for the pesticide
under EPA Reg. No.

11220-15

TRICAL

P.O. BOX 1327 • HOLLISTER, CA 95024

E.P.A. EST. 11220-CA-1,2,3,4; FL-1

E.P.A. REG. NO. 11220-15

NET CONTENTS LBS.

4915

PRECAUTIONARY STATEMENTS
HAZARD TO HUMANS
AND DOMESTIC ANIMALS:

DANGER PELIGRO

~~Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.~~

HAZARDOUS LIQUID AND VAPOR.

MAY BE FATAL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED. CAUSES SEVERE EYE DAMAGE. CAUSES BURNS OF SKIN. MAY CAUSE LUNG, LIVER AND KIDNEY DAMAGE AND RESPIRATORY SYSTEM IRRITATION. UPON PROLONGED CONTACT. MAY CAUSE ALLERGIC SKIN REACTION. THE USE OF THIS PRODUCT MAY BE HAZARDOUS TO YOUR HEALTH. THIS PRODUCT CONTAINS 1,3-DICHLOROPROPENE, WHICH HAS BEEN DETERMINED TO CAUSE TUMORS IN LABORATORY ANIMALS. RISKS CAN BE REDUCED BY CLOSELY FOLLOWING THE USE DIRECTIONS AND PRECAUTIONS, AND BY WEARING PROTECTIVE CLOTHING SPECIFIED ON THE LABEL AND IN THE LABEL BOOKLET.

**PERSONAL PROTECTIVE EQUIPMENT
REQUIREMENTS (PPE):**

The chemical resistance selection category for this product is H. For more information about PPE materials that are resistant to this product for various lengths of time, consult an EPA chemical-resistance selection chart. Heat illness mitigation techniques are in practice, such as gradual adjustment to heat and respirator stress, fans for cooling, cooling vests, frequent breaks, frequent intake of drinking water, and maintaining weight from day-to-day.

NOTE: RESPIRATORY PROTECTION:

(ONLY FULL-FACED RESPIRATORS MAY BE WORN)

When using respiratory protection, chemical cartridges or canisters must be replaced daily or when the odor or irritation of this product becomes apparent, whichever is sooner. The following respiratory protection is acceptable for use with this product: A MSHA/NIOSH approved full-face tight-fitting respirator or loose-fitting powered air purifying (PAPR) respirator with cartridge or canister specified in the label booklet and only when all of the following criteria have been met:

1. Respirator fit-testing and fit-checking program conforming to OSHA's as described in 29 CFR Part 1910.134.
2. Training for respirator user conforming to OSHA's training requirement as described in 29 CFR Part 1910.134.
3. Examination of the respirator user by a qualified medical practitioner to ensure physical ability to safely wear that style of respirator.

NOTE: CHEMICAL PROTECTIVE CLOTHING (CPC)

There are no protective clothing materials that are completely impervious to penetration by liquid 1,3-dichloropropene. CPC constructed of SARANEX, neoprene and chlorinated polyethylene provide short-term liquid contact and splash protection. CPC constructed of EVAL laminate barriers (for example, RESPONDER suits manufactured by Life-guard or SILVERSHIELD gloves manufactured by North), Viton and Teflon provide longer-term protection. Leather gloves and shoes offer no protection from 1,3-dichloropropene and if contaminated cannot be made safe to wear. Render unusable and dispose of contaminated leather goods, including shoes.

NOTE: See Label Booklet For Additional Personal Protective Equipment Requirements.

USER SAFETY RECOMMENDATIONS

READ LABEL VERY CAREFULLY

1. Do not get in eyes.
2. Do not breathe the vapor.
3. Do not get on skin.
4. Do not swallow any 1,3-dichloropropene.
5. Never siphon 1,3-dichloropropene by mouth or use mouth to blow out clogged lines, nozzles, etc.

Do not eat, drink, smoke, or chew gum or tobacco while handling this product or before washing hands and face thoroughly with soap and water. Do not use the toilet before thoroughly washing hands.

If this product penetrates through your clothing or personal protective equipment, stop handling this product immediately, remove the clothing and equipment, wash your body thoroughly, and put on clean clothing and equipment before resuming the handling activity. Never wear protective gear having the odor of 1,3-dichloropropene.

After handling this product, remove personal protective equipment immediately. Wash the outside of gloves before taking them off. Shower or wash thoroughly and change into clean clothing as soon as possible.

Discard clothing and personal protective equipment that cannot be reused, including clothing or other absorbent materials that have been drenched or thoroughly contaminated with this product. Otherwise, wash clothing and personal protective equipment (including both the inside and outside of gloves) before each day of reuse according to manufacturer's directions or, if no such directions, in detergent and hot water. Keep and wash them separately from other laundry.

EMERGENCY: In case of an emergency endangering health or the environment involving this product, call the 24 Hour Emergency Phone Number (800) 424-9300.

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ENVIRONMENTAL HAZARDS.

Do not contaminate water by cleaning of equipment or disposal of wastes. In case of spills, properly dispose of contaminated materials.
Ground Water Advisory: 1,3-dichloropropene is known to move through soil and under certain conditions has the potential to reach ground water as a result of agricultural use. Application in areas where soils are permeable and ground water is near the surface, or in karst geology, could result in ground water contamination.

PHYSICAL OR CHEMICAL HAZARDS

FLAMMABLE: Do not use, pour, spill, or store near heat or open flames. Do not cut or weld container.

ENGINEERING CONTROLS REQUIREMENTS**MECHANICAL TRANSFER SYSTEM:**

Personal protective equipment specified for "Direct Contact Activities" must be worn by the operator of the mechanical transfer system. The operator of the mechanical transfer system must have available to him the manufacturer's written instructions for operation of the system and must read and understand (or have explained to him in detail) the proper operation and maintenance of the system.

WITH ALL BULK AND MINI-BULK CONTAINERS:

1,3-dichloropropene must be transferred through connecting hoses, pipes, and/or couplings sufficiently tight to prevent workers or other persons from coming in contact with liquid 1,3-dichloropropene.

1. All hoses, piping, and tanks used in connection with 1,3-dichloropropene shall be of type appropriate for use under the pressure and vacuum conditions to be encountered.
2. External sight gauges shall be equipped with valves so that pipes to sight gauge can be shut off in case of breakage or leakage.
3. The mechanical transfer system must be adequate to make necessary measurements of the pesticide being used.
4. Shut-off devices must be installed on the exit end of all hoses and at all disconnect points to prevent leakage of 1,3-dichloropropene product when the transfer is stopped and hose is removed or disconnected. A dry coupler that will minimize pesticide leakage must be installed at the disconnect point.
5. The pressure in hoses used to move 1,3-dichloropropene beyond a pump must not exceed the manufacturer's maximum pressure specification.

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.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling. For any requirements specific to your State, consult the agency in your State responsible for pesticide regulation. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected workers may be in the area during application. For any requirements specific to your State, consult the agency in your State responsible for pesticide regulation.

The restricted entry interval (REI) following application of a product containing 1,3-dichloropropene is 72 hours.

The following Personal Protective Equipment must be worn for entry into treated areas that involves contact with treated soil:

- a. An approved full-face tight-fitting respirator equipped with organic vapor cartridges (MSHA/NIOSH approval TC-23C) or canister approved for pesticides (MSHA/NIOSH approval TC-14G) whenever the odor of 1,3-dichloropropene can be detected.
- b. Chemical resistant gloves and footwear. This footwear must be worn when walking on treated soil within 72 hours after application.

Notify workers of the application by providing oral or written warnings. Written or oral warning must be given to workers who are expected to be in a treated area or in any area about to be treated with this product. These oral warnings shall inform workers of areas or fields that may not be entered without protective equipment until 72 hours after treatment. In case of accidental exposure, follow directions as shown by the First Aid section on this label. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Written warnings must include the following information: DANGER, Area treated with soil fumigant containing 1,3-dichloropropene on (insert date of application). Do not enter without protective equipment until 72 hours after treatment.

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Y**STORAGE, SHIPMENT AND DISPOSAL**

SHIPPING, STORAGE: Agricultural Chemical. Do not ship or store with food, feeds, drugs or clothing.

SHIPMENT: This fumigant is classified in the U.S. Department of Transportation Hazardous Materials Regulations as RQ Poisonous Liquid, flammable, n.o.s., (contains Dichloropropene and Chloropicrin), 6.1, UN 2029, PG 1, Poison-Inhalation Hazard, Hazard Zone B and no exemptions from specifications, packaging, marking, and labeling are allowed. Describe empty cylinders as having last contained Dichloropropene and Chloropicrin (Poison-Inhalation Hazard). Do not ship with food, feeds, or clothing.

STORAGE: Store in tightly-closed original container in a cool place away from dwellings. Do not allow contamination of seeds, plants, fertilizers, or other pesticide chemicals. Do not contaminate food, feed stuffs, drugs, or domestic water supplies.

DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide and rinsals 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. Because 1,3-dichloropropene is corrosive under certain conditions, flush all application equipment with fuel oil, kerosene or a similar type of petroleum solvent immediately after use. Fill pumps and meters with new motor oil or a 50% motor oil/fuel oil mixture before storing. Do not use water. Dispose of rinsals by applicable Federal, State and local regulations. Never introduce rinsals or unused product into surface or underground water supplies.

METAL CONTAINER DISPOSAL: To dispose of container emptied during application operation, remove bungs, invert container in the field just treated and ensure that the container is free of liquid. Orient container such that ventilation of bung holes is not restricted. Allow containers to aerate for at least 14 days. Replace bungs prior to transport. After aeration, offer container to qualified reconditioner or dispose of as directed by State or local regulations.

REFILLABLE CONTAINERS: Contact the company and/or the company representative for directions on cleaning and handling refillable containers.

BULK PRODUCT TRANSFERS: Dry break or dry disconnect couplings are required for all product transfers involving bulk containers for products containing 1,3-dichloropropene as of September 30, 1993.

WARRANTY DISCLAIMER

NOTICE: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.

INHERENT RISKS OF USE

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label and label booklet instructions (including conditions noted on the label and label booklet, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of the company or the seller. All such risks shall be assumed by Buyer.

LIMITATION OF REMEDIES

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at the company's election, one of the following: (1) Refund of purchase price paid by buyer or user for product bought; or, (2) Replacement of amount of product used. The company shall not be liable for losses or damages resulting from handling or use of this product unless the company is promptly notified of such loss or damage in writing. In no case shall the company be liable for consequential or incidental damages or losses. The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statement or agreements. No employee or sales agent of the company or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

CA May, 1993-

**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.

LABEL BOOKLET

Directions for Use Including Storage and Disposal;
Precautionary Information, including Requirements for
Personal Protective Equipment; Engineering Control and
Requirements; and Agricultural Use Requirements.

TRI-FORM 40/60**ACTIVE INGREDIENTS:**

1,3-Dichloropropene	37.6%
Chloropicrin	59.4%

INERT INGREDIENTS:	3.0%
---------------------------	-------------

100.0%

Contains 4.51 pounds of 1,3-dichloropropene and 7.13 pounds of chloropicrin per gallon.

TRICAL

P.O. BOX 1327 • HOLLISTER, CA 95024

E.P.A. EST. 11220-CA-1,2,3,4; FL-1

E.P.A. REG. NO. 11220-15

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

NOTICE: Read the entire label. Use only according to label directions. Refer to inside of label booklet for Direction for Use including Storage, and Disposal and additional precautionary information including requirements for Personal Protective Equipment (PPE).

**IN ALL CASES OF OVEREXPOSURE GET
MEDICAL ATTENTION IMMEDIATELY.
TAKE PERSON TO A DOCTOR OR TO AN
EMERGENCY TREATMENT FACILITY.**

FIRST AID

IF INHALED: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.

IF ON SKIN: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. If water is not immediately available, remove excess chemical from skin with adsorbent material such as towel or dry soil, then proceed at once to a location where water is available and thoroughly wash contaminated skin with plenty of water. Call a physician.

IF IN EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

IF SWALLOWED: Do not induce vomiting. Call a physician or Poison Control Center immediately. Never give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Because rapid absorption may occur through lungs if product is aspirated and causes systemic effects, the decision to induce vomiting or not should be made by a physician. If lavage is performed, endotracheal and/or esophageal control is suggested. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach.

See Side Panel For Additional Precautionary Statements.

**PRECAUTIONARY STATEMENTS
HAZARD TO HUMANS
AND DOMESTIC ANIMALS:
DANGER PELIGRO**

~~Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.~~

HAZARDOUS LIQUID AND VAPOR.
MAY BE FATAL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED. CAUSES SEVERE EYE DAMAGE. CAUSES BURNS OF SKIN. MAY CAUSE LUNG, LIVER AND KIDNEY DAMAGE AND RESPIRATORY SYSTEM IRRITATION UPON PROLONGED CONTACT. MAY CAUSE ALLERGIC SKIN REACTION. THE USE OF THIS PRODUCT MAY BE HAZARDOUS TO YOUR HEALTH. THIS PRODUCT CONTAINS 1,3-DICHLOROPROPENE, WHICH HAS BEEN DETERMINED TO CAUSE TUMORS IN LABORATORY ANIMALS. RISKS CAN BE REDUCED BY CLOSELY FOLLOWING THE USE DIRECTIONS AND PRECAUTIONS, AND BY WEARING PROTECTIVE CLOTHING SPECIFIED ON THE LABEL AND IN THE LABEL BOOKLET.

**PERSONAL PROTECTIVE EQUIPMENT
REQUIREMENTS (PPE):**

The chemical resistance selection category for this product is H. For more information about PPE materials that are resistant to this product for various lengths of time, consult an EPA chemical-resistance selection chart. Heat illness mitigation techniques are in practice, such as gradual adjustment to heat and respirator stress, fans for cooling, cooling vests, frequent breaks, frequent intake of drinking water, and maintaining weight from day-to-day.

**NOTE: RESPIRATORY PROTECTION:
(ONLY FULL-FACED RESPIRATORS MAY BE WORN)-**

When using respiratory protection, chemical cartridges or canisters must be replaced daily or when the odor or irritation of this product becomes apparent, whichever is sooner. The following respiratory protection is acceptable for use with 1,3-dichloropropene: A MSHA/NIOSH approved full-face tight-fitting respirator or loose-fitting powered air purifying (PAPR) respirator with cartridge or canister specified in the label booklet and only when all of the following criteria have been met:

- (1). Respirator fit-testing and fit-checking program conforming to OSHA's as described in 29 CFR Part 1910.134;
- (2). Training for respirator user conforming to OSHA's training requirements as described in 29 CFR Part 1910.134;
- (3). Examination of the respirator user by a qualified medical practitioner to ensure physical ability to safely wear that style of respirator.

NOTE: CHEMICAL PROTECTIVE CLOTHING (CPC)-

There are no protective clothing materials that are completely impervious to penetration by liquid 1,3-dichloropropene. CPC constructed of SARANEX, neoprene and chlorinated polyethylene provide short-term liquid contact and splash protection. CPC constructed of EVAL laminate barriers (for example, RESPONDER suits manufactured by Life-guard or SILVERSHIELD gloves manufactured by North), Viton and Teflon provide longer-term protection. Leather gloves and shoes offer no protection from 1,3-dichloropropene and if contaminated cannot be made safe to wear. Render unusable and dispose of contaminated leather goods, including shoes.

1. Direct Contact Activities: The following personal protective equipment (PPE) must be worn by individuals performing tasks that may involve direct contact with liquid 1,3-dichloropropene or from direct venting of 1,3-dichloropropene vapor to the atmosphere. These tasks, which must be conducted outdoors or in a well-ventilated area, include but are not limited to:

- Equipment calibration or adjustment;
- Equipment clean-up and repair;
- Product sampling;
- Any activity less than 6 feet from an unshielded pressurized hose containing 1,3-dichloropropene;
- Rinsate disposal;
- Fumigant transfer;
- Clean-up of small spills;
- Preparing containers for aeration;

- (a). A full-face tight-fitting respirator or loose-fitting powered air purifying (PAPR) respirator equipped with organic vapor cartridges (MSHA/NIOSH approval TC-23C) or canister approved for pesticides (MSHA/NIOSH approval TC-14G).
- (b). Coveralls.
- (c). Chemical resistant apron.
- (d). Headgear if there is a potential for contact with liquid 1,3-dichloropropene from an overhead source.
- (e). Chemical resistant gloves and footwear (E.G., EVAL or neoprene).

See Requirements Continued In Third Column

PROTECTIVE EQUIPMENT REQUIREMENTS (Continued):

2. Application: Persons operating application equipment for this product must wear:

(a). Coveralls

(b). Shoes and socks.

In addition, the following PPE must be worn whenever the odor or irritation of this product can be detected: (a) An approved full-face tight-fitting respirator or loose-fitting powered air purifying (PAPR) respirator equipped with organic vapor cartridges (MSHA/NIOSH approval TC-23C) or canister approved for pesticides (MSHA/NIOSH approval TC-14G).

NOTE: The PPE specified above for "Direct Contact Activities" must be readily available at all times and worn if it is necessary to leave the vehicle applying this product to perform any direct contact activity.

3. Early Entry Activities: Persons entering the treated area to perform soil sealing or any other early entry activity within 72 hours after application must wear:

(a). Coveralls or a long-sleeved shirt and pants.

(b). Shoes and socks.

In addition, the following PPE must be readily available at all times and worn under the conditions indicated:

(a). An approved full-face tight-fitting respirator or loose-fitting powered air purifying (PAPR) respirator equipped with organic vapor cartridges (MSHA/NIOSH approval TC-23C) or canister approved for pesticides (MSHA/NIOSH approval TC-14G) whenever the odor or irritation of this product can be detected.

(b). Chemical resistant gloves and footwear (e.g., EVAL or neoprene) whenever there is direct contact with soil treated with this product.

4. Special Activities: The following personal protective equipment must be worn by persons exposed to high airborne concentrations of this product, such as clean-up following large spills, exposure to this product in poorly ventilated areas and bulk tank cleaning:

(a). Body protection providing gas tight protection (level A) is required to prevent possible skin effects.

(b). A positive pressure atmosphere supplying respirator (MSHA/NIOSH approval number prefix TC-16C or TC-18F) must be worn.

USER SAFETY RECOMMENDATIONS

READ LABEL VERY CAREFULLY

1. Do not get in eyes.

2. Do not breathe the vapor.

3. Do not get on skin.

4. Do not swallow any 1,3-dichloropropene.

5. Never siphon 1,3-dichloropropene by mouth or use mouth to blow out clogged lines, nozzles, etc.

Do not eat, drink, smoke, or chew gum or tobacco while handling this product or before washing hands and face thoroughly with soap and water. Do not use the label before thoroughly washing hands.

If this product penetrates through your clothing or personal protective equipment, stop handling this product immediately, remove the clothing and equipment, wash your body thoroughly, and put on clean clothing and equipment before resuming the handling activity. Never wear protective gear having the odor of 1,3-dichloropropene.

After handling this product, remove personal protective equipment immediately. Wash the outside of gloves before taking them off. Shower or wash thoroughly and change into clean clothing as soon as possible.

Discard clothing and personal protective equipment that cannot be reused, including clothing or other absorbent materials that have been drenched or thoroughly contaminated with this product. Otherwise, wash clothing and personal protective equipment (including both the inside and outside of gloves) before each day of reuse according to manufacturer's directions or, if no such directions, in detergent and hot water. Keep and wash them separately from other laundry.

EMERGENCY: In case of an emergency endangering health or the environment involving this product, call the 24 Hour Emergency Phone Number (800) 424-9300.

ENVIRONMENTAL HAZARDS

Do not contaminate water by cleaning of equipment or disposal of wastes. In case of spills, properly dispose of contaminated materials.

Ground Water Advisory: 1,3-dichloropropene is known to move through soil and under certain conditions has the potential to reach ground water as a result of agricultural use. Application in areas where soils are permeable and ground water is near the surface, or in karst geology, could result in ground water contamination.

PHYSICAL OR CHEMICAL HAZARDS

FLAMMABLE: Do not use, pour, spill, or store near heat or open flames. Do not cut or weld container.

ENGINEERING CONTROLS REQUIREMENTS

MECHANICAL TRANSFER SYSTEM: Personal protective equipment specified for "Direct Contact Activities" must be worn by the operator of the mechanical transfer system. The operator of the mechanical transfer system must have available to him the manufacturer's written instructions for operation of the system and must read and understand (or have explained to him in detail) the proper operation and maintenance of the system.

WITH ALL BULK AND MINI-BULK CONTAINERS: 1,3-dichloropropene must be transferred through connecting hoses, pipes, and/or couplings sufficiently tight to prevent workers or other persons from coming in contact with liquid 1,3-dichloropropene.

1. All hoses, piping, and tanks used in connection with 1,3-dichloropropene shall be of type appropriate for use under the pressure and vacuum conditions to be encountered.
2. External sight gauges shall be equipped with valves so that pipes to sight gauge can be shut off in case of breakage or leakage.
3. The mechanical transfer system must be adequate to make necessary measurements of the pesticide being used.
4. Shut-off devices must be installed on the exit end of all hoses and at all disconnect points to prevent leakage of 1,3-dichloropropene product when the transfer is stopped and hose is removed or disconnected. A dry coupler that will minimize pesticide leakage must be installed at the disconnect point.
5. The pressure in hoses used to move 1,3-dichloropropene beyond a pump must not exceed the manufacturer's maximum pressure specification.

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.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling. For any requirements specific to your State, consult the agency in your State responsible for pesticide regulation. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected workers may be in the area during application. For any requirements specific to your State, consult the agency in your State responsible for pesticide regulation.

The restricted entry interval (REI) following application of a product containing 1,3-dichloropropene is 72 hours.

The following Personal Protective Equipment must be worn for early entry into treated areas that involves contact with treated soil:

- a. An approved full-face tight-fitting respirator equipped with organic vapor cartridges (MSHA/NIOSH approval TC-23C) or canister approved for pesticides (MSHA/NIOSH approval TC-14G) whenever the odor of 1,3-dichloropropene can be detected.
- b. Chemical resistant gloves and footwear. This footwear must be worn when walking on treated soil within 72 hours after application.

Notify workers of the application by providing oral or written warnings. Written or oral warning must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. These oral warnings shall inform workers of areas or fields that may not be entered without protective equipment until 72 hours after treatment. In case of accidental exposure, follow directions as shown by the First Aid section on this label. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Written warnings must include the following information: DANGER, Area treated with soil fumigant containing 1,3-dichloropropene on (insert date of application). Do not enter without protective equipment until 72 hours after treatment.

STORAGE, SHIPMENT AND DISPOSAL

SHIPPING, STORAGE: Agricultural Chemical. Do not ship or store with food, feeds, drugs or clothing.

SHIPMENT: This fumigant is classified in the U.S. Department of Transportation Hazardous Materials Regulations as RQ Poisonous Liquids, flammable, n.o.s. (contains Dichloropropene and Chloropicrin), 6.1, UN 2929, PG 1, Poison-Inhalation Hazard, Hazard Zone B and no exemptions from specifications, packaging, marking, and labeling are allowed. Describe empty cylinders as having last contained Dichloropropene and Chloropicrin (Poison-Inhalation Hazard). Do not ship with food, feeds, or clothing.

STORAGE: Store in tightly-closed original container in a cool place away from dwellings. Do not allow contamination of seeds, plants, fertilizers, or other pesticide chemicals. Do not contaminate food, feed stuffs, drugs, or domestic water supplies.

DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide and rinsates 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. Because 1,3-dichloropropene is corrosive under certain conditions, flush all application equipment with fuel oil, kerosene or a similar type of petroleum solvent immediately after use. Fill pumps and meters with new motor oil or a 50% motor oil/fuel oil mixture before storing. Do not use water. Dispose of rinsate by applicable Federal, State and local regulations. Never introduce rinsate or unused product into surface or underground water supplies.

METAL CONTAINER DISPOSAL: To dispose of container emptied during application operation, remove bungs, invert container in the field just treated and ensure that the container is free of liquid. Orient container such that ventilation of bung holes is not restricted. Allow containers to aerate for at least 14 days. Replace bungs prior to transport. After aeration, offer container to qualified reconditioner or dispose of as directed by State or local regulations.

REFILLABLE CONTAINERS: Contact the company and/or the company representative for directions on cleaning and handling refillable containers.

BULK PRODUCT TRANSFERS: Dry break or dry disconnect couplings are required for all product transfers involving bulk containers for products containing 1,3-dichloropropene as of September 30, 1993.

WARRANTY DISCLAIMER

NOTICE: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.

INHERENT RISKS OF USE

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label and label booklet instructions (including conditions noted on the label and label booklet, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of the company or the seller. All such risks shall be assumed by Buyer.

LIMITATION OF REMEDIES

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at the company's election, one of the following: (1) Refund of purchase price paid by buyer or user for product bought; or, (2) Replacement of amount of product used. The company shall not be liable for losses or damages resulting from handling or use of this product unless the company is promptly notified of such loss or damage in writing. In no case shall the company be liable for consequential or incidental damages or losses. The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statement or agreements. No employee or sales agent of the company or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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This product is a multi-purpose liquid fumigant for preplant treatment of soil to control nematodes, symphylians, wireworms and certain soil borne diseases in cropland.

Before fumigation, soil sampling for the type and number of pests present is recommended. In fields where pre-treatment soil samples indicate the presence of high population levels of nematodes, a successful fumigation cannot be expected to eradicate entire populations. Therefore, post-treatment sampling is recommended to determine the need for additional pest management practices.

Consult State Agricultural Experiment Station or Extension Service specialists for information on other practices such as post-harvest destruction of crop residues, weed control or other cultural practices, and use of nematode resistant crop varieties that may aid in reducing crop losses from soil borne pests.

GENERAL USE PRECAUTIONS.

Soil fumigation using this product should be conducted only according to directions and conditions of use described in this labeling.

FORMULATOR USE OF 1,3-DICHLOROPROPENE: Labeling for and use products containing 1,3-dichloropropene that are prepared and sold by formulators must comply with all precautionary statements, use precautions, environmental hazards, handling and protective equipment requirements, maximum application rates and other exposure mitigation measures specified in this product labeling.

RECONTAMINATION PREVENTION: This product will control pests that are present in the soil treatment zone at time of fumigation. It will not control pests that are introduced into soil after fumigation. To avoid reinfestation of treated soil do not use irrigation water, transplants, seed pieces, or equipment that could carry soil borne pests from infested land. Avoid contamination from moving infested soil onto treated beds through cultivation, movement of soil from below the treated zone, dumping contaminated bare soil in treated fields and soil contamination from equipment or crop remains. Clean equipment carefully before entering treated fields.

BULK TRANSFERS: Dry break or dry disconnect couplings are required for all product transfers involving bulk containers for 1,3-dichloropropene as of September 30, 1993.

Do not use containers, pumps or other transfer equipment made of aluminum, magnesium or their alloys, as under certain conditions 1,3-dichloropropene may be severely corrosive to such metals.

EQUIPMENT CLEAN-UP: Because 1,3-dichloropropene is corrosive under certain conditions, flush all application equipment with fuel oil, kerosene or a similar type of petroleum solvent immediately after use. Fill pumps and meters with new motor oil or a 50% motor oil/fuel oil mixture before storing. Do not use water. Dispose of rinsate by incorporation into field just treated or by other approved means. Never introduce rinsate or unused product into surface or underground water supplies.

CHEMIGATION: Do not apply 1,3-dichloropropene through any type of irrigation system.

FERTILITY INTERACTIONS: Fumigation may temporarily raise the level of ammonia nitrogen and soluble salts in the soil. This is most likely to occur when heavy rates of fertilizer and fumigant are applied to soils that are either cold, wet, acid, or high in organic matter. To avoid injury to certain crops including red beets, carrots, corn, radishes, cole crops, legumes (beans), lettuce, onions, and sugar beets, fertilize as indicated by soil tests made after fumigation. To avoid ammonia injury or nitrate starvation (or both) to crops grown on high organic soils, do not use fertilizers containing ammonium salts. Use only fertilizers containing nitrates until after the crop is well established and the soil temperature is above 65 degrees F. In mineral soils, do not apply more than 2/3 of the nitrogen requirements from fertilizers containing ammonium salts until the crop is well established and the soil temperature is above 65 degrees F.

When using high rates of the product as required by certain state nursery regulations, liming of highly acid soils before fumigation may stimulate nitrification and reduce the possibility of ammonia toxicity. Certain nursery crops such as citrus seedlings, *Cornus* sp., *Catalpa* sp., spruce, and vegetable crops such as cauliflower have shown evidence of phosphorus deficiency following fumigation. To avoid this possible effect, it is suggested that additional phosphate fertilizer (foliar applied) is recommended where experience indicates a deficiency may occur.

APPLICATION TIMING: This product can be applied at any time of the year when soil conditions permit. Conditions that allow rapid diffusion of the fumigant as a gas through the soil normally give best results. Because this product does not provide residual control of soil pests, it should be used as a preplant application before planting each crop. The following soil temperature and moisture conditions should exist at time of treatment. Failure to meet these conditions may result in unsatisfactory product performance.

SOIL CONDITIONS: Soil temperature at the depth of application must be between 40 degrees F and 60 degrees F. In areas where the soil temperature in the spring may not reach 40 degrees F in time to allow application of this product prior to planting, late summer or early fall treatment is recommended.

Soil moisture throughout the desired treatment zone should be at or near the permanent wilting point to allow optimum dispersion of the fumigant, which moves as a gas through the soil air spaces. The permanent wilting point varies with soil texture and organic matter content. Coarser textured soils can be fumigated under conditions of higher soil moisture than finer textured soils; however, if the soil moisture is too high, fumigant movement will be retarded and effectiveness of the treatment will be reduced. Previous and/or local experience with the soil to be treated or the crop to be planted can often serve as a guide to conditions that will be acceptable. If you do not know how to determine the soil moisture content of the area to be treated, consult your local extension service or soil conservation service specialist or pest control advisor (eg consultant) for assistance.

In general, no irrigation should immediately precede subsoiling or fumigation; however, when surface soil moisture conditions are not likely to provide an adequate seal against fumigant loss, a very light sprinkler irrigation to wet the top 1 to 2 inches of soil may be useful.

SOIL PREPARATION: The soil should be free of clods. Large clods can prevent effective soil sealing and reduce effectiveness of this product. Plant residues should be thoroughly incorporated into the soil prior to treatment to avoid interfering with application. Undecomposed plant material may harbor pests that will not be controlled by fumigation. Little or no crop residue should be present on the soil surface. Crop residue that is present should be flat to permit the soil to be sealed effectively. Compacted soil layers within the desired treatment zone should be fractured before or during application of the fumigant. Deviation from the above conditions may result in unsatisfactory results.

PLACEMENT OF FUMIGANT: This product may be applied as either a broadcast (overall) or row treatment. It must be placed at least 10 inches below the final soil surface. When soil conditions allow, placement a minimum of 12 inches below the final soil surface is recommended. Deeper placement is recommended when fumigating soil to be planted to deep-rooted plants, such as perennial fruit and nut crops, or to control deeply distributed pests.

APPLICATION METHODS AND EQUIPMENT

BROADCAST APPLICATION: Use chisel (shank), Nobel (sweep) plow or plow-sole application equipment. For best results when using chisel equipment, use ripper-type, forward-swept shanks. Nobel plow equipment is particularly useful for fall fumigation when the soil still contains some standing undecomposed plant material. Subsoiling may be necessary before application as described under "Soil Preparation". Choose application equipment which allows the deepest application and best soil seal under existing conditions.

The fumigant outlet spacing varies with the type of application equipment used. With chisel equipment a fumigant shank spacing of 12 to 24 inches is recommended. The outlet spacing for this equipment may be up to 1 1/2 times the application depth but generally should be equal to the application depth and should not exceed the soil-shattering capability of the chisels. The maximum outlet spacing should not exceed 24 inches. With plow-sole equipment a 12-inch outlet spacing is recommended. Do not exceed an outlet spacing of 18 inches. With Nobel (sweep) plow equipment use an outlet spacing of 9-12 inches along the sweeps.

Broadcast application can be made in the same direction or at an angle to the direction of row planting.

ROW APPLICATION: Use chisel equipment to treat a band of soil where the crop is to be planted, i.e. the plant row. One or two chisels per plant row is recommended. In general, when one chisel is used, apply product at the flow rates given. When two chisels per plant row are used, space the chisels (fumigant outlets) 8 to 12 inches apart and divide the flow rates equally between the two outlets. Regardless of the number of chisels used, the amount of fumigant applied per 1000 feet of plant row should remain the same. With certain deeper rooted crops such as potatoes and sugar beets, higher flow rates may be necessary to ensure adequate treatment of the zone of soil where primary root growth occurs; however, in no case should the amount of fumigant applied per acre exceed the gallons per acre rates for broadcast treatment.

To prevent seed germination problems caused by improper seed-to-soil contact or improper seeding depth, do not place the seed directly over the furrow left by the applicator chisel(s). When one chisel is used per plant row, place the seed about 4 inches to one side of the chisel furrow. When two chisels are used per plant row, plant the seed offset from the chisel trace.

APPLICATION METHODS AND EQUIPMENT (Continued):

SEALING THE SOIL AFTER APPLICATION: Immediately after chisel application of the product, the soil should be "sealed" to prevent fumigant loss and ensure that an effective concentration of fumigant is maintained within the soil for a period of several days.

For Broadcast Treatment (flat fumigation), sealing can be accomplished with equipment that will uniformly mix the soil to a depth of 3 to 4 inches to effectively eliminate chisel or plow traces which can allow direct escape of the fumigant. A tandem disc or similar equipment may be used for this purpose. To maximize sealing, steps should also be taken to compact the soil surface to further retard the rate of fumigant loss by following with a ring roller, cultipacker or roller in combination with tillage equipment. Compaction of the soil surface alone may give the appearance of adequate sealing without effectively disrupting chisel or plow traces.

For Row Treatment, forming the beds at the time of application should be accomplished in a manner that places the fumigant at least 12 inches from the nearest soil/air interface. The closest soil/air interface could be the furrow for multiple knife applications or the top of the bed for single knife applications. Row treatments into preformed beds should be sealed by disrupting the chisel trace using press sealers, ring rollers or by reforming the beds and following with such equipment.

Sealing can also be improved by applying non-perforated plastic film, such as polyethylene, over the entire area or in strips. Use of a film to seal the soil surface does not eliminate the need to eliminate chisel traces prior to application of the plastic film unless simultaneous application and tarp laying by the same piece of equipment occurs and the tarp is a minimum of 1 mil thick.

Proper soil conditions at the time of application (see Soil Preparation section) are important to ensure proper placement of fumigant (see Placement of Fumigant section) and obtaining adequate sealing. Prior tillage should be adequate to eliminate clods and thoroughly mix crop residues into the soil.

SOIL FUMIGATION INTERVAL: Leave the soil undisturbed and unplanted for at least 7 days after application of the fumigant. A longer undisturbed interval is required if the soil becomes cold or wet, and for deep-rooted trees, shrub and vine planting sites.

After the fumigation interval, to prevent phytotoxicity, allow the fumigant to dissipate completely before planting the crop. Under optimum soil conditions for dissipation, 1 week for each 10 gallons/acre is recommended. For fruit, nut, and nursery crops at least three months should elapse between treatment and planting. To hasten dissipation, especially if heavy rains or low temperatures occur during the treatment period, till the soil to the depth of fumigant application. Use a knife-like chisel without turning the soil to reduce the possibility of recontaminating the treated soil. Dissipation is usually complete when the odor of the product is no longer evident at the application depth. Seed may be used as a bioassay to determine if the product is present in the soil at concentrations sufficient to cause plant injury. Do not plant if the odor of the product is present within the zone of fumigation.

APPROVED USES

TRI-FORM 40/60 is a preplant soil fumigant for control of soil-borne pests such as wireworms and nematodes, and diseases caused by certain species of *Rhizoctonia*, *Pythium*, *Fusarium*, *Phytophthora*, and *Verticillium*. TRI-FORM 40/60 is to be used in soil to be planted to the crops listed below.

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APPLICATION RATES TRI-FORM 40/60

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Crop	Type of Treatment	Soil Type	Gallons Per Acre ¹
Brussel Sprouts	Over-all	Mineral	21.9 to 36.3
Cucumbers	(Broadcast)	Muck or peat	58.2 to 87.3
Eggplant			
Floral Crops			
Melons			
Nursery Crops			
Onions	Over-all		51.0 to 58.4
	(Broadcast)		
Plant and Seed Beds	Over-all	Mineral	29.1 to 36.3
Radishes	(Broadcast)	Muck or peat	58.2 to 87.3
Strawberries	Over-all	Mineral	58.2 to 87.3
	(Broadcast)		
Sweet Potatoes	Over-all		51.0 to 58.4
	(Broadcast)		
Tomatoes	Over-all	Mineral	21.9 to 36.3
	(Broadcast)	Muck or peat	58.2 to 87.3

¹ Use the higher rates in heavier soil.

NOTE:

1. Use highest rate on heavy soils such as clay or muck and lowest rate on light sandy soils.
2. Use highest rate for cyst-forming nematodes and Verticillium wilt control.
3. Row or bed applications may be made at the broadcast rates, but the amount used will be proportionately less per acre depending on the row spacing and width of treatment in the row or bed.