



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

December 2, 2022

Mardel Rose Belotinsky
Registration Manager
Trical, Inc.
8100 Arroyo Circle
Gilroy, CA 95020-7305

Subject: Registration Review Label Amendments Incorporating Mitigation from the National Marine Fisheries Services (NMFS) Biological Opinions on the Effects of 1,3-dichloropropene (Telone) on Pacific Salmonids:
Product Name: TRI-CAL TRILONE II
EPA Registration Number: 11220-1
Application Date: August 23, 2021
Decision Number: 583090

Dear Mardel Rose Belotinsky:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the NMFS' Biological Opinion on the effects of 1,3-dichloropropene (Telone) on Pacific salmonids. The Agency has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently

Page 2 of 2
EPA Reg. No. 11220-1
Decision No. 583090

approved labeling. “To distribute or sell” is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact DeMariah Koger by phone at (202)-566-2288, or via email at koger.demariah@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington", with a long horizontal flourish extending to the right.

Linda Arrington, Branch Chief
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

Enclosure

RESTRICTED USE PESTICIDE

DUE TO HIGH ACUTE INHALATION TOXICITY AND CARCINOGENICITY
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-Cal Trilone II

A liquid fumigant for preplant treatment of soil to control plant parasitic nematodes and certain other soil pests in cropland. Not for use in greenhouses or other enclosed areas. Not for formulation or manufacturing use. Do not formulate this product into other products.

ACTIVE INGREDIENT:

1,3-Dichloropropene97.5%

OTHER INGREDIENTS:..... 2.5%

TOTAL:100.0%

One gallon of Tri-Cal Trilone II weighs 10.15 lbs. at 70°F.

Contains 9.85 lbs. of 1,3-dichloropropene per gallon.

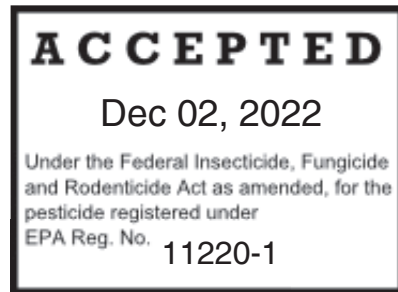
KEEP OUT OF REACH OF CHILDREN

WARNING AVISO

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

(If you do not understand the label, find someone to explain it to you in detail.)

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



FIRST AID

If inhaled:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth-to-mouth if possible. • If breathing is difficult, give oxygen. • Call a poison control center or doctor for further treatment advice.
If on skin or clothing:	<ul style="list-style-type: none"> • Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. • 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 poison control center or doctor for treatment advice.
If in eyes:	<ul style="list-style-type: none"> • Immediately flush eyes with plenty of water. • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lens, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency treatment information.

NOTE TO PHYSICIAN

Because rapid absorption may occur through lungs if product is aspirated and cause systemic effects, the decision to induce vomiting or not should be made by a physician. Probable mucosal damage may contraindicate the use of gastric lavage. 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 PANELS FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

PRECAUTIONARY STATEMENTS **HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

WARNING

Hazardous Liquid and Vapor

- DO NOT SWALLOW ANY OF THIS PRODUCT. MAY BE FATAL IF SWALLOWED.
- DO NOT GET IN EYES. CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY.
- DO NOT GET ON SKIN. MAY BE FATAL IF ABSORBED THROUGH THE SKIN. CAUSES SKIN IRRITATION AND, IF CONFINED, SKIN BURNS. MAY CAUSE ALLERGIC SKIN REACTION.
- DO NOT BREATHE VAPOR. MAY BE FATAL IF INHALED. MAY CAUSE LUNG, LIVER AND KIDNEY DAMAGE, AND RESPIRATORY SYSTEM IRRITATION UPON PROLONGED CONTACT.
- 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 EXACTLY FOLLOWING DIRECTIONS FOR USE, PRECAUTIONARY STATEMENTS, AND BY WEARING THE PERSONAL PROTECTIVE EQUIPMENT SPECIFIED IN THIS LABELING.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Chemical-Resistant Materials: Some materials that are chemical-resistant to this product are listed below. PPE constructed of Saranex, neoprene, and chlorinated polyethylene provide short-term contact or splash protection against liquid in this product. Longer-term protection is provided by PPE constructed of Viton, Teflon, and EVAL barrier laminates (for example, Responder suits manufactured by Lifeguard or Silvershield gloves manufactured by North). Where chemical-resistant materials are required, leather, canvas, or cotton materials offer no protection from this product and must not be worn when contact with this product is possible. Where coveralls are required, they must be loose-fitting and constructed of woven fabrics (e.g. tight knit cotton or cotton/polyester), non-woven fabrics (e.g. Tyvek or Sontara), or fabrics containing microporous Teflon.

(1) Handlers Performing Tasks With Liquid Contact Potential: Tasks with liquid contact potential are tasks performed outdoors or in a well-ventilated area. They include:

- equipment calibration or adjustment
- equipment cleanup and repair
- product sampling
- any activity less than 6 feet from an unshielded pressurized hose containing this product
- rinsate disposal
- fumigant transfer
- clean-up of small spills
- preparing containers for aeration
- any other task not otherwise listed in (2), (3), or (4), below.

Handlers performing tasks with liquid contact potential must wear at minimum:

- coveralls over short-sleeved shirt and short pants
- chemical-resistant gloves, such as barrier laminate (EVAL) or Viton
- chemical-resistant footwear plus socks
- chemical-resistant headgear for overhead exposure
- chemical-resistant apron
- a face shield or safety glasses with brow and temple shields (Do not wear chemical goggles)
- a half-face 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). See further respirator requirements in the “User Safety Requirements” section on this label.

(2a) Handlers Performing Tasks with No Liquid Contact Potential: *Broadcast applications, in-bed applications, or applications at the time of bedding, except as in 2b.* Tasks with no liquid contact potential are tasks performed outdoors or in a well-ventilated area. These tasks include:

- tractor driving
- soil sealing
- field activities on the day of application that do not disrupt the soil at the depth of liquid injection

Handlers performing tasks with no liquid contact potential must wear at minimum:

- loose fitting or well ventilated long-sleeved shirt and long pants
- shoes and socks
- a face shield or safety glasses with brow and temple shields (Do not wear chemical goggles)
- a half-face 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).
- A respirator is not required (not applicable in California) if the occupants are within an enclosed cab that is in conformance with one of the following: 1) ANSI/ASAE S525-1.1 MAY 1998 sections 7.1.5, 7.1.7, 7.2.3, and 9, or 2) the requirements listed in the Worker

Protection Standard (WPS) for agricultural pesticides—40 CFR 170.240(d)(5). The cab must be equipped with a vapor-adsorptive filter containing a minimum of 1000 grams activated charcoal. The filter must be changed after no more than 50 hours of application time. See further respirator requirements in the “User Safety Requirements” section on this label.

- In addition, the PPE specified in (1) for activities with direct liquid contact potential must be immediately available and must be worn if the handler is to perform any direct-contact activity with a potential for liquid contact.

(2b) Handlers Performing Tasks with No Liquid Contact Potential--*Pre-bed, Row product applications, (e.g., Yetter rig)* (not applicable in California): Tasks with no liquid contact potential are tasks performed outdoors or in a well-ventilated area. These tasks include:

- tractor driving
- soil sealing
- field activities on the day of application that do not disrupt the soil at the depth of liquid injection

Handlers performing tasks with no liquid contact potential must wear at minimum:

- loose fitting or well ventilated long-sleeved shirt and long pants
- shoes and socks
- a face shield or safety glasses with brow and temple shields (Do not wear chemical goggles)
- In addition, the PPE specified in (1) for activities with liquid contact potential must be immediately available and must be worn if the handler is to perform any direct-contact activity with a potential for liquid contact.

(3) Handlers In Treated Area 1 to 5 days After Application: Only the following handler tasks may be performed in the treated area within 5 days after the application is complete:

- assessing/adjusting the soil seal
- assessing pest control, application technique, or application efficacy
- sampling air or soil for this product
- removing tarp or plastic film

All other tasks are prohibited until the 5-day period has expired.

Handlers in treated area 1 to 5 days after application must wear at minimum:

- loose fitting or well ventilated long-sleeved shirt and long pants
- shoes and socks
- a face shield or safety glasses with brow and temple shields (Do not wear chemical goggles)
- a half-face 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).
- A respirator is not required if the occupants are within an enclosed cab (not applicable in California) that is in conformance with one of the following: 1) ANSI/ASAE S525-1.1 MAY 1998 sections 7.1.5, 7.1.7, 7.2.3, and 9, or 2) the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides—40 CFR 170.240(d)(5). The cab must be equipped with a vapor-adsorptive filter containing a minimum of 1000 grams activated charcoal. The filter must be changed after no more than 50 hours of application

time. See further respirator requirements in the “User Safety Requirements” section on this label.

- In addition, the PPE specified in (1) for activities with direct liquid contact potential must be immediately available and must be worn if the handler is to perform any direct-contact activity with a potential for liquid contact.

(4) Handlers Exposed to High Concentrations: *Handlers exposed to high airborne concentrations of this product, such as cleanup following large spills and exposure to this product in poorly ventilated areas, must wear at minimum:*

- chemical-resistant suit
- chemical-resistant gloves, such as barrier laminate (EVAL) or Viton
- chemical-resistant footwear plus socks
- chemical-resistant headgear
- supplied-air respirator with MSHA/NIOSH approval number prefix TC-19C or self-contained breathing apparatus (SCBA) with MSHA/NIOSH approval number prefix TC-13F. See further respirator requirements in the “User Safety Requirements” section on this label.

Note: In-tank cleaning of bulk tanks must be performed only by persons who have been specifically trained for this activity according to OSHA guidelines as described in OSHA 29 CFR Part 1910.146. Refer to section on storage tanks in the manual “Telone Soil Fumigant - A Guide to Application”, a guide for products containing 1,3-Dichloropropene.

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 OSHA’s requirements (described in 29 CFR Part 1910.134); (c) Respirator users must be trained using a program that conforms to OSHA’s requirements (described in 29 CFR Part 1910.134); (d) Respirator users must be examined by a qualified medical practitioner to ensure physical ability to safely wear the style of respirator to be worn.
2. **Dispose of Contaminated Clothing:** Discard clothing and other absorbent materials 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 there are 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.
4. **Contact With Mouth:** Never siphon this product by mouth or use mouth to blow out clogged lines, nozzles, etc.
5. **Heat Illness Avoidance:** Use measures to avoid or minimize heat illness while using this product. These measures include gradual adjustment to heat and respirator stress, fans for cooling, cooling vests, frequent breaks to cool down, frequent intake of drinking water, and maintaining weight from day to day.

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.

ENVIRONMENTAL HAZARDS

- Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark.
- Do not contaminate water by disposal of equipment rinsate. See “Storage and Disposal” section.
- In case of spills, properly dispose of contaminated materials.
- **Groundwater Advisory:** 1,3-dichloropropene is known to move through soil and under certain conditions has the potential to reach groundwater as a result of agricultural use. Application in areas where soils are permeable and groundwater is near the surface could result in groundwater contamination.

Reporting Ecological Incidents:

To report ecological incidents, including mortality, injury, or harm to plants and animals, call (831) 637-0195.

PHYSICAL OR CHEMICAL HAZARDS

- Combustible. Do not use or store near heat or open flame.
- Do not mix or allow coming in contact with oxidizing agent. A chemical reaction hazard may occur.
- Handle carefully! Do not drop or let container be impacted by heavy objects. An explosion hazard may occur.

ENGINEERING CONTROLS REQUIREMENTS

MECHANICAL TRANSFER SYSTEM: Personal protective equipment specified for “Tasks with Liquid Contact Potential” must be worn by the operator of the mechanical transfer system. The operator of the mechanical transfer system must follow instructions on proper operation of the system found in the manual “Telone Soil Fumigant - A Guide to Application”, a guide for products containing 1,3-Dichloropropene. Contact your product distributor for more information or for these materials.

END-ROW SPILLAGE CONTROL: The dispensing system must shut off the feed stream when chisels are raised out of the ground. Do not stop or park near any area where dribble from chisel tips has fallen. The applicator must follow instructions on proper operation and maintenance of the system found in the manual “Telone Soil Fumigant - A Guide to Application”, a guide for products containing 1,3-Dichloropropene. Contact your product distributor for more information or for these materials.

- A flow shutoff device must be placed as close as is technically feasible to the fluid discharge point. This can be a ball, poppet, or diaphragm check valve, or full flow shutoff device such as an electric or pneumatically actuated valve.
- Service any system immediately if continuous drip occurs.
- If mechanical check valves and orifices are used, place the check valve above the orifice. Also, isolate the check valve from upstream pressure by installing a main line shut off or bypass valve prior to the manifold.
- Pipe diameter from check valve to injection point must not exceed 1/4 inches ID National Pipe Standard (NPS). Preferably, use the smallest diameter pipe or tubing possible which achieves the required flow rate.
- Alternate end-row spillage devices or methods such as, but not limited to, micro-bore restricted flow tubing or line purge systems may be used if they provide equal or superior control versus check valves.

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

1. All hoses, piping, and tanks used in connection with this product 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 this 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 this product beyond a pump must not exceed the manufacturer’s maximum pressure specification.

DIRECTIONS FOR USE

Restricted Use Pesticide

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

Endangered Species Protection Requirements

It is a Federal offense to use any pesticide in a manner that results in an unauthorized “take” (e.g., kill or otherwise harm) of an endangered species and certain threatened species, under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult <http://www.epa.gov/espp/>, call 1-844-447-3813, or email ESPP@epa.gov. You must use the Bulletin valid for the month in which you will apply the product.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only handlers may be in the application block from the start of the application until the entry restricted period ends, and in the buffer zone during the buffer zone period. 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, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), restricted-entry intervals, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

ENTRY RESTRICTION: 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 5 days after application. In addition, if tarps are used for the application, non-handler entry is prohibited while tarps are being removed.

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

PPE FOR REENTRY DURING THE ENTRY-RESTRICTED PERIOD: PPE for entry that is permitted by this labeling is listed in the “Hazards to Humans and Domestic Animals” section of this labeling.

READ ALL DIRECTIONS FOR USE CAREFULLY BEFORE APPLYING.

GENERAL INFORMATION

TRI-CAL TRILONE II is a liquid fumigant for preplant treatment of soil to control plant parasitic nematodes and certain other soil pests and plant diseases in cropland. TRI-CAL TRILONE II may be applied as a preplant soil treatment to control the following types of plant parasitic nematodes: burrowing, citrus, cyst (golden, sugar beet, soybean, carrot and wheat), dagger, lance, pin, needle, reniform, ring, root knot, root lesion, spiral, sting and stubby root. TRI-CAL TRILONE II can also be used to control garden centipedes (symphylans) and wireworms, suppress sugar beet Rhizomania disease, *Fusarium* wilt of cotton and *Verticillium* wilt of mint and aid in the control of bacterial canker of peaches.

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 MUST BE CONDUCTED ONLY ACCORDING TO DIRECTIONS AND CONDITIONS OF USE DESCRIBED IN THIS LABELING.

USE RESTRICTIONS

- Do not apply within 100 feet of any well used for potable water.
- Do not apply this product within 100 feet of karst topographical features. Karst topography is identified from landscape features that result from the dissolving activity of water in carbonate rock formations (limestone, dolomite, and marble). Surface features that are associated with karst topography include sinkholes, caverns, springs, and sinking or disappearing streams. In North Dakota, South Dakota, Wisconsin, Minnesota, New York, Maine, New Hampshire, Vermont, Massachusetts, Utah, and Montana: Where groundwater aquifers exist at a depth of 50 feet or less from the surface, do not apply this product where soils are Hydrologic Group A.
- This product is prohibited from sale, sale into, use, or distribution in Nassau and Suffolk Counties, New York.
- Use of TRI-CAL TRILONE II is prohibited in Broward and Dade Counties, Florida.

ADDITIONAL USE RESTRICTIONS FOR TRI-CAL TRILONE II IN CERTAIN FLORIDA COUNTIES

Additional use restrictions listed below apply to the following Florida counties: Brevard, Charlotte, Citrus, Collier, DeSoto, Glades, Hardee, Hendry, Hernando, Highlands, Hillsborough, Indian River, Lake Lee, Manatee, Martin, Monroe, Okeechobee, Orange, Osceola, Palm Beach, Pasco, Pinellas, Polk, Sarasota, Seminole, St. Lucie, Sumter, and Volusia.

- Use TRI-CAL TRILONE II only on soils that have a relatively shallow hard pan or soil layer restrictive to downward water movement (such as spodic horizon) within six feet of the ground surface and are capable of supporting seepage irrigation regardless of irrigation method employed.
- Use standard chisel injection equipment to inject TRI-CAL TRILONE II as deep as possible without placing the fumigant directly into the shallow subsurface irrigation water.

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 tare soil in treated fields and soil contamination from equipment or crop remains. Clean equipment carefully before entering treated fields. Cultural practices, which provide post-harvest destruction of crop residues and weeds prior to fumigation, and practices which prevent weed infestation following fumigation and prior to planting, will help prevent recontamination.

EQUIPMENT CLEAN-UP

Because Tri-Cal Trilone II 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.

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.

CHEMIGATION

DO NOT APPLY TRI-CAL TRILONE II 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.

When using high rates of this 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., *Crataegus* sp., spruce, and vegetable crops such as cauliflower have shown evidence of phosphorus deficiency

following fumigation. To avoid this possible effect, additional phosphate fertilizer (foliar applied) is recommended where experience indicates a deficiency may occur.

APPLICATION DIRECTIONS

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 80 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

It is critical to manage soil moisture properly before fumigation. Plan fumigation for seasons, crop rotations, or irrigation schedules which leave moisture in the soil. For application depths greater than 18 inches, the soil should be moist within a 16-inch radius upwards from the point of injection as determined by the feel method (see below). For all other applications, the soil must be moist from two inches below the soil surface to at least 12 inches deep. The amount of moisture needed in this zone will vary according to soil type. The surface soil generally dries very rapidly and should not be considered in this determination. If there is insufficient moisture at the two to six inch depth, the soil moisture must be adjusted. If irrigation is not available and there is adequate soil moisture below six inches, it may be brought to the surface by disking or plowing before or during the injection. To conserve existing soil moisture, pretreatment or treatment tillage practices should be done as close to the time of application as possible. For fields with more than one soil texture, soil moisture content in the lightest textured (most sandy) areas must comply with this soil moisture requirement. Whenever possible, the field should be divided into areas of similar soil texture and the soil moisture of each area should be adjusted as needed. 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 (Ag Consultant) for assistance.

In general, no irrigation should immediately precede subsoiling or fumigation; however, when irrigation is available and 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 is recommended before and/or immediately after fumigation.

The following descriptions will aid in determining acceptable soil moisture conditions by the “feel method”. For coarse soils (sand and loamy sand), there must be enough moisture to allow formation of a weak ball when compressed in the hand. Due to soil texture, this ball is easily broken with little disturbance. In loamy, moderately coarse, or medium textured soils (coarse sandy loam, sandy loam, and fine sandy loam), a soil sample with the proper moisture content can be formed into a ball which holds together with moderate disturbance, but does not stick between the thumb and forefinger. Fine textured soils (clay loam, silty clay loam, sandy clay, silty clay, sandy clay loam and clay), should be pliable and not crumbly, but should not form a ribbon when compressed between the thumb and forefinger.

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 lie 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 12 inches below the final soil surface. When soil conditions allow, placement at a minimum of 14 inches below the final soil surface is required. 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. For row application, the fumigant must be placed at least 12 inches from the nearest soil/air interface (e.g. furrow or bed top).

BUFFER ZONE

An application of this product shall not be made within 100 feet of an occupied structure, such as a school, hospital, business or residence. No person shall be present at this structure at any time during the seven consecutive day period following application. ***This buffer zone does not apply to use on soils that will not experience an additional 1,3-dichloropropene treatment for at least three years. For example, on soils to be planted with fruit trees, nut and nursery crops, perennial vines, hops, mint or pineapple.*** Note: This product shall not be applied to soils more frequently than once each year.

APPLICATION METHODS AND EQUIPMENT

BROADCAST APPLICATION

Use chisel (shank), offset wing 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 to 12 inches along the sweeps. Broadcast application can be made in the same direction or at an angle to the direction of row planting. Refer to Table 1 for broadcast treatment rates for various crops.
- Application should be made to a depth of at least 15 inches.

ROW APPLICATION

(for row spacing greater than 24 inches)

Use chisel equipment to treat a band of soil where the crop is to be planted, i.e. the plant row. In general, when one chisel is used, apply product at twice the flow rates given in Table 1. When multiple chisels per plant row are used, space the chisels (fumigant outlets) 8 to 12 inches apart and use the flow rates given in Table 1 per outlet (see footnote 1, Table 2). Regardless of the number or spacing of chisels used, the fumigant must be placed at least 12 inches from the nearest soil/air interface (e.g. furrow). 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 maximum gallons per acre rates given in Table 1. To determine the amount (gallons) of product required per acre for various plant row spacings and flow rates, refer to Table 2. Note that as the distance between the plant rows increases the amount of fumigant required decreases and vice versa.

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.

SEALING THE SOIL AFTER APPLICATION

Immediately after chisel application of this product, the soil must 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 does not effectively disrupt 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 (e.g. furrow). 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 must 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 to obtain 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 tree, 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. 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.

USES

This product is recommended for control of nematodes in soils to be planted to vegetable crops, field crops, fruit and nut crops, and nursery crops.

Crop	Soil Type or Texture	Application Rates ^(a)	
		Broadcast Gallons/Acre	Fl. oz. per 1000' of Row/Outlet¹
Vegetable Crops ²	Mineral ³	9 to 12 ⁴	26 to 35
	Muck or Peat ⁵	25	74
Field Crops	Mineral	9 to 12 ⁴	26 to 35
	Muck or Peat	18	53
Fruit and Nut Crops ^{6,7,8,9,10}	Mineral	27 to 35	79 to 103
Nursery Crops ¹¹	Mineral	42 to 55	124 to 162

^{a)} Do not exceed specified maximum application rates.

¹ Flow rates are based on 12 inch outlet spacing. Flow rates for alternate spacings can be calculated using the following formula: fl oz/1000 ft of row/outlet = 0.245 x rate in gallons/acre x outlet spacing in inches. For row treatment refer to Table 2.

² Potatoes: Before fumigation, soil sampling for the type and number of pests present is recommended and can help to determine the need for additional treatment with a contact nematicide. Preharvest tuber sampling for nematodes also is recommended. If the nematode population is high enough to damage the crop, potatoes can be harvested early. Do not store potatoes with a detectable nematode infestation. Row treatment is not recommended for potatoes in irrigated areas of western and northwestern states.

³ Mineral soil includes sand, sandy loam, silt, and clay loam. Use the higher rates for finer textured (heavier) soils.

⁴ For cyst-forming nematodes use 18 gallons per acre (53 fl oz/1000 ft/outlet).

⁵ Greater than 20% organic matter content.

⁶ Pineapple: Application may be made at the time of planting. For best results, seal the soil with polyethylene film, which acts as a gas permeability barrier.

⁷ Tree Planting Sites: Use 24 fl oz (1.5 pints) of product by application of the fumigant at a single point in the center of each planting site at a depth of 5 feet below the final soil surface. Sites prepared by backhoeing to break up restrictive soil layers that may retard fumigant movement should be dug in the approximate dimensions of 10 x 10 x 10 feet. The hole should then be backfilled to a depth of 5 feet, the fumigant applied using a closed-system application tube and the remainder of the soil previously removed immediately added to the hole. For sites where no restrictive soil layers are present, the fumigant can be applied to a depth of 5 feet using an injection auger. For best results, prepare and treat planting sites in the fall and plant in the spring.

⁸ For shallow-rooted plants grown only one year, use 15 to 27 gallons per acre (44 to 79 fl oz/1000 ft of row/outlet).

⁹ Citrus Fruits: For burrowing nematode control, inject product on 18-inch centers at least 12 inches deep. For buffers within existing groves or for tree planting sites within existing groves, do not apply within 5 feet of living trees. Keep the field free of plants susceptible to this nematode at least two years before planting to citrus.

¹⁰ Stone Fruits: Within existing groves or for tree planting sites within existing groves, do not apply within 5 feet of living trees.

¹¹ When used according to state nursery regulations, this product may be used in the production of certified nursery stock.

TABLE 2
Rate Conversion Chart for Various Row Spacings
and Fumigant Flow Rates¹

Note: In no case should the amount of fumigant applied per acre exceed the gallons per acre rates for broadcast treatment given in Table 1.

Fl. Oz./ 1000' of Row	Plant Row Spacing (Inches)								
	28	32	36	40	44	48	52	56	60
	Gallons Per Acre								
52	7.6	6.6	5.9	5.3	4.8	4.4	4.1	3.8	3.5
60	8.8	7.7	6.8	6.1	5.6	5.1	4.7	4.4	4.1

68	9.9	8.7	7.7	6.9	6.3	5.8	5.3	4.9	4.6
76	11.1	9.7	8.6	7.8	7.0	6.5	6.0	5.5	5.2
84	12.3	10.7	9.5	8.6	7.8	7.1	6.6	6.1	5.7
92	13.4	11.7	10.4	9.4	8.5	7.8	7.2	6.7	6.3
100	14.6	12.8	11.3	10.2	9.3	8.5	7.8	7.3	6.8
108	15.8	13.8	12.2	11.0	10.2	9.2	8.5	7.9	7.3
116	16.9	14.8	13.2	11.8	10.8	9.9	9.1	8.5	7.9
124	18.1	15.8	14.1	12.7	11.5	10.5	9.7	9.0	8.4
132	19.3	16.8	15.0	13.5	12.2	11.2	10.4	9.6	9.0
140	20.4	17.9	15.9	14.3	13.0	11.9	11.0	10.2	9.5
148	21.6	18.9	16.8	15.1	13.7	12.6	11.6	10.8	10.1
156	22.8	19.9	17.7	15.9	14.5	13.3	12.2	11.4	10.6
164	23.9	20.9	18.6	16.7	15.2	13.9	12.9	11.9	11.2
172	25.1	21.9	19.5	17.6	16.0	14.6	13.5	12.5	11.7
180	26.3	23.0	20.4	18.4	16.7	15.3	14.1	13.1	12.2
188	27.4	24.0	21.3	19.2	17.4	16.0	14.8	13.7	12.8
196	28.6	25.0	22.2	20.0	18.2	16.7	15.4	14.3	13.3
204	29.8	26.0	23.1	20.8	18.9	17.4	16.0	14.9	13.9
212	30.9	27.0	24.0	21.6	19.7	18.0	16.6	15.4	14.4

¹For row spacing of 24 inches or less, apply as a broadcast treatment. For treatments with row spacing greater than 24 inches, refer to Table 1 for the rate needed for a specific crop and/or soil texture. To determine gallons per acre for row treatments, double the flow rate in Table 1 and look up the corresponding gallons per acre in Table 2.

For single chisel applications: the flow rates are double those listed in Table 1. For example, for vegetable crops in mineral soil, the flow rate for a single chisel row treatment is 52 to 70 fl oz per 1000 ft of row (note the broadcast rate is 26 to 35 fl oz per 1000 ft of row).

For multiple chisel applications: use the flow rate given in Table 1 per outlet. For example, for vegetable crops in mineral soil using 2 chisels per row, the flow rate per outlet is 26 to 35 fl oz per 1000 ft of row per outlet.

To obtain the gallons per acre used for a row spacing not shown in this table, use the following equation:

$$\frac{\text{Fl. oz./1000 ft. of row} \times 4.08^a}{\text{row spacing (inches)}} = \text{gallons per acre}$$

$$^a4.08 = \frac{12 \text{ inches} \times 43.56 \text{ (no. 1000 ft./acre)}}{128 \text{ (fl. oz. per gallon)}}$$

PLANT DISEASES

Bacterial Canker of Peaches: To aid in the control of this disease apply TRI-CAL TRILONE II as a preplant broadcast treatment to light (sandy) soils at the rate of 35 gallons per acre (103 fl oz/1000 ft row/outlet), preferably in the Fall, when the soil is warm (55 to 80 degrees F at injection depth) and moist. Inject the fumigant at a depth of 12 to 14 inches with chisels mounted on 12-inch centers.

Fusarium Wilt of Cotton: The effects of this disease can be suppressed by controlling the root knot nematodes associated with this disease/nematode complex. Use product as a row treatment at the rate of 12 gallons per acre (35 fl oz/1000 ft row/outlet).

Sugar Beet Rhizomania Disease: Use TRI-CAL TRILONE II to suppress the effects of this disease by preplant broadcast application at the rate of 10 to 18 gallons per acre broadcast equivalent (29 to 53 fl oz/1000 ft row/outlet). Use the higher rates for heavier (finer textured) soils and/or for higher levels of disease infestation. TRI-CAL TRILONE II is believed to reduce the activity of *Polymyxa beta*, which has been identified as the vector of the Rhizomania disease virus.

Verticillium Wilt of Mint: To aid in the control of this disease, apply TRI-CAL TRILONE II as a broadcast treatment at 25 to 30 gallons per acre (73 to 88 fl oz/1000 ft outlet) in the Spring, or preferably in the Fall.

SOIL INSECTS

Symphylans (Garden Centipedes): Use TRI-CAL TRILONE II for treatment of soil to be planted to crops where these pests have been shown to be a problem. Apply the fumigant only as a broadcast treatment at the rate of 18 to 35 gallons per acre (53-103 fl oz/1000 ft row/outlet) when soil temperature is warm (55 to 80 degrees F) at the application depth.

Wireworms: Use TRI-CAL TRILONE II for treatment of soil to be planted to crops where these pests have been shown to be a problem. Apply the fumigant as a broadcast treatment at 20 gallons per acre by injection at least 14 inches below the final soil surface.

WARRANTY DISCLAIMER

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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 instructions (including conditions noted on the label, 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 seller. To the extent allowable by state law, all such risks shall be assumed by buyer.

LIMITATION OF REMEDIES: To the extent consistent with applicable law, 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. To the extent allowable by state law, 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. To the extent consistent with applicable law, the company shall not 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 statements 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.

Storage and Disposal

DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL.

Pesticide Storage: Store in a cool, dry, well-ventilated area under lock and key. Post as a pesticide storage area.

Pesticide 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.

Container Handling: Persons moving, handling, or opening containers must wear the personal protective equipment specified in the *Personal Protective Equipment (PPE)* section of this labeling. Open container only in a well-ventilated area. Remove the valve protection bonnet and safety cap only when fumigant is about to be removed from the cylinder. The safety cap and valve protection bonnet must be replaced when the cylinder is not in use. Do not subject cylinders to rough handling, or to abnormal mechanical shock such as dropping, bumping, dragging, or sliding. Do not use ropes, slings, hooks, tongs, and similar handling devices for unloading cylinders. To transport heavier cylinders, use a hand truck, fork truck, or similar device to which cylinders can be firmly secured.

Refillable Container: Only the registrant is authorized to refill cylinders. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Container Disposal: To clean the container before final disposal, remove any remaining liquid from the container, using dry air pressure if necessary. Allow container to aerate for at least 5 days. After aeration, wash container using hot water; then offer container to qualified reconditioner or dispose of as directed by State or local regulations.



**Trical, Inc. • 8100 Arroyo Circle • Gilroy, CA 95020-7305
(831) 637-0195**

EPA Reg. No. 11220-1
EPA Est. 11220-CA-4; 11220-CA-8

NET CONTENTS.....LBS.