

Signs and Symptoms - Apprehension, dizziness, headache, weakness, twitching, convulsions, respiratory depression and coma are typical symptoms. Irritation orally may result in convulsions. Treat as first symptoms.

Antidotes: Diazepam (suggested anti-convulsant) or Pentobarbital. For ingested poisoning Emmeas (syrup of Ipecac) followed by 30 gm activated charcoal is suggested (to absorb remaining toxicant in gut)

REST DOCUMENT AVAILABLE

CAUTION

- MAY BE HARMFUL IF SWALLOWED.
- MAY BE ABSORBED THROUGH SKIN!
- DO NOT BREATHE SPRAY MIST.
- AVOID CONTACT WITH SKIN OR EYES. IN CASE OF CONTACT, WASH IMMEDIATELY WITH SOAP AND WATER. FOR EYES, FLUSH WITH WATER AND GET MEDICAL ATTENTION.
- AVOID CONTAMINATION OF FOOD, FEED, SEED, AND FERTILIZER.

OBSERVE THE FOLLOWING—USE PRECAUTIONS

- Do not apply on food crops.
- Do not apply to crop in rotation with root crops.
- Do not reuse empty container. Destroy it by perforating or crushing. Bury or discard in a safe place away from water supplies.
- Observe use limitations given on the label specific crops.
- Do not apply during bloom when honey bees or other pollinators are active. Avoid drift onto adjoining food and forage crops about to be harvested, or crops in bloom.
- Do not apply on feed or forage crops to be fed to dairy animals or to animals being finished for slaughter.
- This product is toxic to fish, birds and other wildlife. Keep out of lakes, streams, or ponds. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from areas treated. Do not contaminate water by cleaning of equipment or disposal of wastes. Apply this product only as specified on this label.

This product is highly toxic to bees exposed to direct treatment or residues on crops. Protective information may be obtained from your Cooperative Agricultural Extension Service.

The Federal Food and Drug Administration has set official tolerances for certain pesticides residues. In order that residues on food and forage crops will not exceed established tolerances, use only at recommended rates, and do not apply closer to harvest than specified.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Pesticide, spray, mixture or rinsate that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticides or buried in a safe place away from water supplies. Triple rinse (or equivalent) and offer for recycling, reconditioning, or disposal in approved landfill or bury in a safe place. Consult federal, state or local disposal authorities for approved alternative procedures.

DIRECTIONS FOR USE

Pour recommended amount of this material into nearly filled spray tank. Add balance of water to fill tank. Keep agitator running during filling, mixing and spraying operations. Do not allow mixtures to stand. If mixture does not mix readily but tends to separate as an oily layer, do not use as injury to plants may result. Do not combine emulsifiable liquids with wettable powders in the same spray tank unless previous use of the materials being combined has proved them to be physically compatible.

RECOMMENDATIONS

TURPENTINE BEETLE (*Dendroctonus terebrans*)
Identification: Reddish brown to dark brown or black

Southern
AGRICULTURAL CHEMICALS



ACCEPTED
with COMMENTS
in EPA Letter Dated

MAR 2 1984

Under the Federal Insecticide, Fungicide, and Rodenticide Act, amended for the purpose of the registration of EPA No. 3743-109

in color, barrel-shaped in appearance and varies from 1/4 to 1/2 inch in length. The largest pine beetle in S. C. Turpentine beetles make galleries 1/4 inch wide which are usually broad, irregular and downward in direction. Pitch tubes on the lower trunk usually not more than 10 feet above ground.

CONTROL (SHADE TREES) Mix 1 gallon Lindane 1-E with 14 gallons of diesel oil and spray by hand 18 in. up higher if there are attacks. **DANGER TO SHRUBBERY USE WATER SOLUBLE FOR OIL.** Repeat at 30-day intervals. Sprayed regularly need not be sprayed until begins.

CONTROL (FOREST CONDITIONS) Spray made with 1 gallon Lindane 1-E to 14 gallon oil to basal 18 inches of the tree or higher if attacks until it runs freely down the bark. droplet spray (not mist) after loose bark is shed. Spray stumps also as a precaution. Do not spray rain or wet bark. Spray is effective for up to three months.

PINE ENGRAVER BEETLES (Ips) Sever identification. From less than 1/16 to near 1/8 inch long. Varying in color from reddish brown to black. Adult beetle rear end appears as if cut off at an angle, the upper portion slightly out and bearing a number of spines. To determine if Ips beetles are present, examine the inner 1/2 inch wide galleries which extend from a central chamber more or less parallel to grain of wood.

CONTROL (SHADE TREES) Mix 1 gallon Lindane 1-E with 15 gallons of water. Spray entire

LINDANE 1-E

EMULSIFIABLE LIQUID
AN AGRICULTURAL INSECTICIDE
(Contains 1 lb. Lindane per Gallon)

ACTIVE INGREDIENTS:

Lindane (Gamma Isomer of Benzene Hexachloride)	11.5%
Xylene Range Aromatic Hydrocarbon Solvent	83.4%
INERT INGREDIENTS:	5.1%
	100.0%

CAUTION: KEEP OUT OF REACH OF CHILDREN
PROTECT FROM TEMPERATURES BELOW 35° F.
DO NOT USE OR STORE NEAR HEAT OR OPEN FLAME.
DO NOT STORE NEAR ANY PRODUCTS WHICH WILL ABSORB ODORS

See Other Precautions On Back/Side Panel.

A Product Of
Southern Agricultural Chemicals, Inc.
KINGSTREE, S. C.

This product is highly toxic to bees exposed to direct treatment or residues on crops. Protective information may be obtained from your Cooperative Agricultural Extension Service.

The Federal Food and Drug Administration has set official tolerances for certain pesticides residues. In order that residues on food and forage crops will not exceed established tolerances, use only at recommended rates, and do not apply closer to harvest than specified.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Pesticide, spray, mixture or rinsate that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticides or buried in a safe place away from water supplies. Triple rinse (or equivalent) and offer for recycling, reconditioning, or disposal in approved landfill or bury in a safe place. Consult federal, state or local disposal authorities for approved alternative procedures.

DIRECTIONS FOR USE

Pour recommended amount of this material into nearly filled spray tank. Add balance of water to fill tank. Keep agitator running during filling, mixing and spraying operations. Do not allow mixtures to stand. If mixture does not mix readily but tends to separate as an oily layer, do not use as injury to plants may result. Do not combine emulsifiable liquids with wettable powders in the same spray tank unless previous use of the materials being combined has proved them to be physically compatible.

RECOMMENDATIONS

TURPENTINE BEETLE (Dendroctonus terebrans)
Identification: Reddish brown to dark brown or black

YES. IN CASE OF EMERGENCY CALL 1-800-4-A-SHED WITH SOAP AND WATER

PRECAUTIONS: Do not apply to crops. Do not apply to feed. Do not apply to other wildlife. Do not apply to equipment or only as specified

Do not apply to bees or other insects. Do not apply to adjoining food crops. Do not apply to crops in orchards. Do not apply to crops to be fed to livestock. Do not apply to crops to be shed for slaughter. Do not apply to other wildlife. Do not apply to equipment or only as specified



Kingstree, S. C. 29556

ACCEPTED
with COMMENTS
in EPA Letter Dated:

MAR 2 1984

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
3743-109

RESTRICTED USE PESTICIDE

LINDANE 1-E

EMULSIFIABLE LIQUID

AGRICULTURAL INSECTICIDE

(Contains 1 lb. Lindane per Gallon)

CONTENTS:

Isomer of Benzene Hexachloride)	11.5%
Aromatic Hydrocarbon Solvent	83.4%
EMULSIFIERS	5.1%
	100.0%

KEEP OUT OF REACH OF CHILDREN

FROM TEMPERATURES BELOW 35° F.

DO NOT STORE NEAR HEAT OR OPEN FLAME.

DO NOT STORE NEAR ANY PRODUCTS WHICH WILL

ABSORB ODORS

See Precautions On Back/Side Panel.

A Product Of

Agricultural Chemicals, Inc.

KINGSTREE, S. C.

in color, barrel-shaped in appearance and varying from 1/4 to 1/2 inch in length. The largest pine bark beetles in S. C. Turpentine beetles make galleries 1/4 to 1/2 inch wide which are usually broad, irregular and up and down in direction. Pitch tubes on the lower trunk, usually not more than 10 feet above ground.

CONTROL (SHADE TREES) Mix 1 gallon of Lindane 1-E with 14 gallons of diesel oil and spray base of tree 18 in. or higher if there are attacks. **IN CASE OF DANGER TO SHRUBBERY USE WATER SUBSTITUTE FOR OIL.** Repeat at 30-day intervals. Shade trees examined regularly need not be sprayed until infestation begins.

CONTROL (FOREST CONDITIONS) Spray a mixture made with 1 gallon Lindane 1-E to 14 gallons of diesel oil to 18 inches of the tree or higher if there are attacks until it runs freely down the bark. Use small droplet spray (not mist) after loose bark is sloughed off. Spray stops also as a precaution. Do not apply during rain or wet bark. Spray is effective for approximately three months.

PINE ENGRAVER BEETLES (Ips) Several Species Identification: From less than 1/16 to nearly 1/4 inch long. Varying in color from reddish brown to nearly black. Adult beetle rear end appears as if it had been cut off at an angle, the upper portion slightly hollowed out and bearing a number of spines. To determine if Ips beetles are present, examine the inner bark for 1/2-inch wide galleries which extend from a central enlarged chamber more or less parallel to grain of the wood.

CONTROL (SHADE TREES) Mix 1 gallon of Lindane 1-E with 14 gallons of water. Spray entire length of

tree at first signs of danger. Repeat at 30-day intervals. If heavy infestations are in the vicinity, preventive sprays may be used for valuable trees. Use above mixture and spray trees for their entire height.

CONTROL (FOREST CONDITIONS) Cut and remove or spray high risk or beetle infested trees, and burn or spray tops. Observe fire damaged trees regularly. If inner bark has turned brown salvage the tree at once. For spraying, use Lindane 1-E mixed with 55 gallons of light petroleum oil. Apply to trunk, tops and stumps as a medium fine spray until it begins to drip. A mist spray is not desirable. Do not spray when bark is wet. Spray is effective for about three months.

SOUTHERN PINE BEETLE (Dendroctonus frontalis) about 1/2 inch in length, a small dark reddish brown to black. Adult beetle rear end rounded with no spines. It has a slight notch on the front of the head between the eyes visible with hand lens. Southern pine beetles make S-shaped galleries 1/8 in. wide on inner bark.

CONTROL (SHADE TREES and FOREST CONDITIONS) Use same directions as for Pine Engraver Beetle given above.

NOTICE: Follow directions carefully. Timing and method of application, weather and crop condition, mixtures with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given here-with.

E.P.A. Reg. No. 3743-109
E.P.A. Est. No. 3743-SC-1



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Ms. Inez B. Gardner
Southern Agricultural Chemicals, Inc.
P.O. Drawer 527
Kingstree, SC 29556

Dear Ms. Gardner:

Subject: Lindane RPAR
Lindane 1-E
EPA Reg. No: 3743-109
Appl. Date: November 8, 1983

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable provided that you make the labeling changes listed below before you release the product for shipment bearing the amended labeling:

1. A STATEMENT OF PRACTICAL TREATMENT must be added to the labeling. We suggest the following statement, however, if your toxicological data suggests otherwise, please submit a draft STATEMENT OF PRACTICAL TREATMENT for prior approval:

"STATEMENT OF PRACTICAL TREATMENT

If swallowed- Call a physician or Poison Control Center immediately. Gastric lavage is indicated if material was taken internally. DO NOT INDUCE VOMITING: vomiting may cause aspiration pneumonia.
If inhaled- Remove victim to fresh air. Apply artificial respiration if indicated.
If on skin- Remove contaminated clothing and wash affected areas with soap and water.
If in eyes- Flush eyes with plenty of water. Call a physician immediately.

NOTE TO PHYSICIAN- Solvent presents aspiration hazard. Gastric lavage is indicated if material was taken internally.

2. Move the "KEEP OUT OF REACH OF CHILDREN" to appear immediately above the front panel signal word.
3. Insert the following headings to immediately precede: "CAUTION May be harmful if swallowed...."

"PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS"

4. Insert the following to immediately follow the heading DIRECTIONS FOR USE:

"It is a violation of Federal law to use this product in a manner inconsistent with its labeling."
5. Add the following to the label:

"Applicators must wear water resistant hat, lightweight protective suit or coveralls, unlined waterproof gloves (natural rubber, neoprene polyethylene), and unlined, lightweight boots."

"Mixer/loaders must wear goggles or face shield, waterproof apron, and waterproof gloves."
6. Insert the following heading to precede "This product is toxic to fish, birds and other wildlife...":

"ENVIRONMENTAL HAZARDS"
7. Revise the beneficial insect caution appearing under the heading "ENVIRONMENTAL HAZARDS" as follows:

"This pesticide is highly toxic to bees exposed to direct treatment or to residues remaining on the treated area. Do not apply when bees are actively visiting the crop, cover crop, or weeds blooming in the treatment area. Applications should be timed to provide the maximum possible interval between treatment and the next period of bee activity."
8. Revise the "STORAGE AND DISPOSAL" section in accordance ~~with the enclosure. (See STORAGE AND DISPOSAL PER NOTICE)~~
9. Add the following statement to appear under "HAZARDS TO HUMANS...":

"Wash hands and face thoroughly after handling and before eating"
10. Add the following to the label:

"Applicators must wear water resistant hat, lightweight protective suit or coveralls, unlined waterproof gloves (natural rubber, neoprene polyethylene), and unlined, lightweight boots."

"Mixer/loaders must wear goggles or face shield, waterproof apron, and waterproof gloves."
11. Add the following prominently in the DIRECTIONS FOR USE:

"Do not apply by aircraft."

Submit five (5) copies of your revised final printed labeling before you release the product for shipment with the amended labeling.

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

If you hold a Federal registration, a supplemental registration, or a Special Local Needs registration, you may continue to produce new stocks of such products, using current labeling, until April 1, 1984. After that date, all remaining inventories of affected products will fall under the Existing Stocks provisions stated in our letter of October 28, 1983.

Sincerely yours,

George T. LaRocca
Product Manager (15)
Insecticide-Rodenticide Branch
Registration Division (TS-767C)

Enclosure