

SECTION III

Treatment Procedure



Part VIII AEROSOL AND MICRONIZED DUST APPLICATION

A. Aerosol

In applying aerosol in an aircraft, the dispenser nozzle(s) should be directed upward at an angle and from side to side in order to get uniform distribution of the material. During discharge, the dispensing valve should be depressed fully, and the nozzle held 18 inches or more from all surfaces to avoid wetting them.

Aerosol dosages listed in T409 are based on a dispensing rate of one gram per second. The foreign quarantine dosage is 30 grams per 1,000 cubic feet and is not applied in the presence of passengers or crew. An approved dust mask must be worn by the inspector during aerosol dispensing. The Public Health Service dosage is 10 grams per 1,000 cubic feet and normally is applied with passengers and crew on board.

B. Micronized Dusts

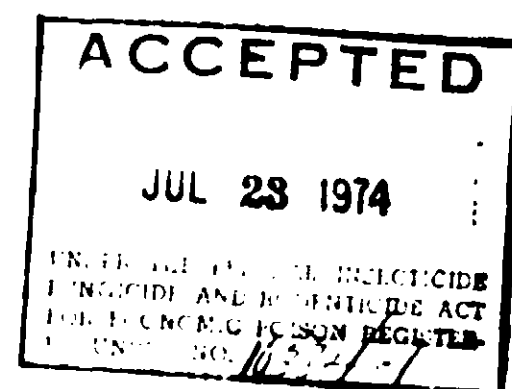
Both domestic and foreign quarantine programs use dusts to kill pests such as the Japanese beetle, European chafer, and pests of foreign origin. This method is used in treating aircraft, railroad cars, trucks, and palletized or containerized cargo. Specific instructions for domestic plant quarantine use is included in program manuals.

1. Dosage. Prefilled cartridges are available as follows: green - 1 gram, yellow - 3 grams, red - 5 grams, and blue - 13 grams. Combinations of these sizes will give the correct amount and the dust may be combined in a single cartridge to reduce the number of individual "shots" required.

Dosage rate for both domestic and foreign quarantined pests is:

2 grams per 1,000 cubic feet

When treating aircraft refer to the exhibits in this Part which list the cubic capacity of most commercial and military aircraft. Refer also to Part VI, T409 for cubic measurements of other aircraft. Do not deduct the space occupied by cargo in computing the required treatment rate.



2. Equipment. To expel the dust, use a CO<sub>2</sub> fire extinguisher properly modified (See Section II, Part X) with standard release valve. The 10 pound CO<sub>2</sub> capacity extinguisher which weighs 35-40 pounds when full is convenient and safe for use. Sufficient gas for 25-30 releases is contained in this size. Smaller extinguishers are satisfactory, however, and may be used.

An air supply from a scuba tank may be employed as an alternative in an emergency. Special connections are needed.

Specially developed CO<sub>2</sub> propelled micronized dust guns (See Section II, Part X) with proper connections are available through the Hyattsville office.

3. Procedures for Application.

(a) Treatment of Passenger Compartments and Cargo Aircraft.

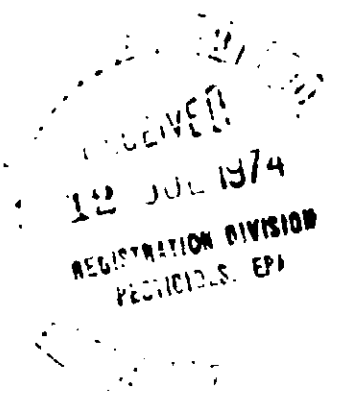
All entry doors and other openings should be closed before discharge of dust. The door to the pilots' compartment must be closed. On aircraft with a baggage compartment immediately behind the pilots' compartment and no door to separate these compartments, place a screen of plastic or other suitable material between the baggage compartment and the pilots' compartment.

The single nozzle gun recoils or kicks back when discharged. Therefore, it must be held firmly with one hand and the other hand used to trigger the release of CO<sub>2</sub>. Keep the hose between the extinguisher and the gun as straight as possible to reduce kickback. A 1-second blast is sufficient. A position should be taken much like that used when firing a large caliber pistol. The discharge nozzle should be directed above the top of the seats or cargo to assure unimpeded flow of the dust cloud from the release point. On smaller types of aircraft, such as the Convair and Martin, stand behind the first seat to discharge the dust. Leave the aircraft immediately after release.

In larger aircraft, also discharge the dust from the front behind the pilots' compartment or from the rear dependent on location of exit doors. Remain in the craft only long enough for the dust cloud to appear to have reached the other end of the craft--about 1 minute. The dust cloud will not return from the opposite end of the large aircraft. Judgment should be used by the inspector as to the best location for firing if partitions are present.

A recently designed gun has two nozzles facing in opposite directions. Since the gas is expelled from both nozzles, no "kick" results. The operator should stand in the middle of the large compartment when firing the charge.

Unless responsible personnel remain near the craft to prevent inadvertent entry by others, place the treatment notice ARS Form 368 on the entry door. Allow the material to settle for 10 to 15 minutes. Cargo or passenger area ventilation systems should not be in operation during the settling period. Remove the seal and reenter the aircraft. On commercial aircraft, the film of dust from slick-covered seat armrests, and flat horizontal surfaces in galleys should be removed by airline personnel.



(b) Treatment of Separate Cargo Compartments and Containerized or Palletized Cargo. Cargo compartments in bellies of aircraft may be treated by opening the doors sufficiently to insert the applicator nozzle. After firing, close the door quickly and do not open for at least 10 minutes. Treatment of such compartments may require two people, one to operate the doors and the other to operate the gun. Containerized cargo may be treated by lifting the cover or otherwise inserting the nozzle in the container. After discharge, the cover should be quickly closed.

#### 4. Precautions

(a) General. Wear a suitable respirator when applying the pesticide. Goggles are optional equipment and may be worn if the operator experiences any eye irritation from the dust particles. Wash after application of the pesticides.

Micronized dusts should be applied only in areas protected from wind currents. Micronized dusts shall not be applied to pilots' compartments or in the presence of passengers or crew members. In passenger compartments, the dust film should be removed from slick armrests and other similar horizontal surfaces. The heaviest dust will be near the point of discharge. If a heavy deposit of dust is noticed on the floor or other area immediately after gun discharge, direct the empty gun at the deposit and activate a 1-second blast of CO<sub>2</sub> to clear the area.

Treatment should not be applied when animals, exposed food containers, or food is present. If exposed food containers or food is present, it must be removed or otherwise completely safeguarded before treatment. Live animals should be unloaded from the aircraft prior to treatment.

Store filled pesticide cartridges in a cool, dry, protected location. Reuseable empty cartridges should be retained and also stored in a protected location. Damaged cartridges should be destroyed by incineration, if local laws permit, or in accordance with ARS recommendations for the safe disposal of pesticide containers.

The applicator should not smoke or eat while applying dust, and he should wash his hands and face following the treatment.

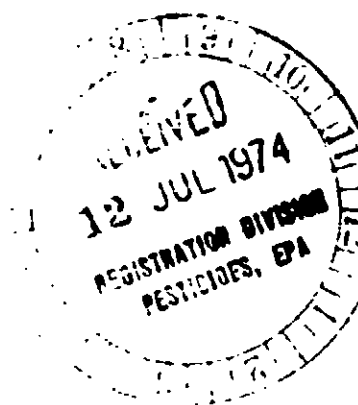
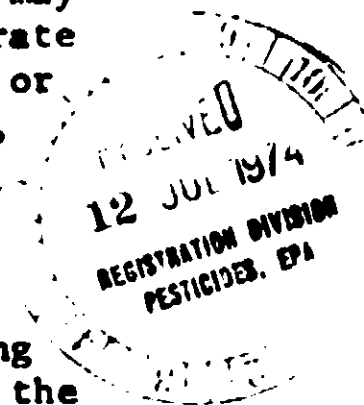
(b) Use of CO<sub>2</sub> Fire Extinguisher. CO<sub>2</sub> chills metal and can cause freezing injury to bare hands. Therefore, do not touch the nozzle immediately after discharge. It may be advantageous to wear a glove on the gun hand if several discharges are to be made in frequent succession. Do not hold the trigger release valve open longer than necessary (about a second) to expel the dust,

Replace and secure with wire or tape the safety pin in CO<sub>2</sub> tank valve after each use. Accidental release could result in severe injury.

Guard against kickback when gas is released. There is less kickback of the nozzle if the hose is kept as straight as possible. Hold the gun firmly with your arm straight. Rest the gun on a solid object if possible. Kneeling on one knee may be necessary if the hose to the gun is short.

Keep the face away from openings when applying material in a luggage compartment or to containerized cargo to avoid dust backlash.

Periodically check the flexible hose between the CO<sub>2</sub> tank and dust gun. Pay particular attention to the points near the connections. Replace if hose shows wear.





PROPOSED LABEL FOR MICRONIZED DDT DUST

USDA Registration  
Number 10384-1

MICRONIZED DDT DUST

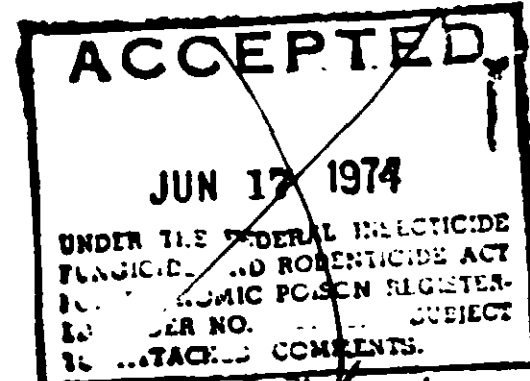
Kills Flies, Mosquitoes, Gnats, Japanese beetles, and other Public Health and Plant Protection and Quarantine pests.

Active Ingredients

Dichloro diphenyl trichloroethane (DDT) 85.0%

Inert Ingredients

15.0%  
100.0%



Directions

(1) FOR USE BY AND DISTRIBUTION TO ONLY U.S. PUBLIC HEALTH SERVICE OFFICIALS OR FOR DISTRIBUTION BY OR ON APPROVAL BY THE U.S. PUBLIC HEALTH SERVICE TO OTHER HEALTH SERVICE OFFICIALS FOR CONTROL OF VECTOR DISEASES; (2) FOR USE BY AND DISTRIBUTION TO THE USDA OR MILITARY FOR HEALTH-QUARANTINE USE.

Rate

2 GRAMS PER 1000 CUBIC FEET TO AIRCRAFT, TRAILERS, CONTAINERS, OR OTHER ENCLOSURES INFESTED WITH PUBLIC HEALTH-QUARANTINE IMPORTANT PESTS. USE IN ACCORDANCE WITH MANUAL INSTRUCTIONS ISSUED BY PUBLIC HEALTH SERVICE AND THE ANIMAL AND PLANT HEALTH INSPECTION SERVICE.

USE BY OR DISTRIBUTION TO UNAUTHORIZED USERS OR USE FOR A PURPOSE NOT SPECIFIED HEREON OR NOT IN ACCORDANCE WITH DIRECTIONS IS DISAPPROVED BY THE FEDERAL GOVERNMENT: THIS SUBSTANCE IS HARMFUL TO THE ENVIRONMENT.

CAUTION: KEEP OUT OF REACH OF CHILDREN

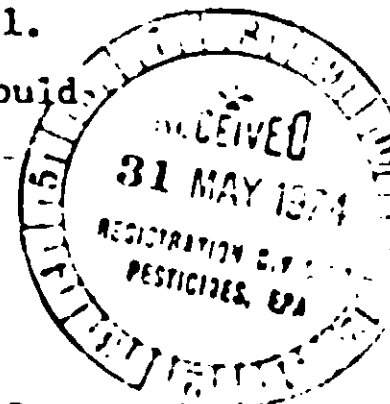
Do not use in the presence of people. Harmful if swallowed or inhaled. Use dust masks or respirator approved by the U.S. Bureau of Mines. Avoid skin contact. In case of skin contact, wash with soap and water.

Cover or remove all food and feedstuffs prior to application to prevent contamination. All cooking and eating utensils should be thoroughly cleaned if contaminated.

This product is toxic to fish, birds, and other wildlife. Do not apply where runoff is likely to occur. Do not contaminate water by cleaning of equipment or disposal of wastes. Apply this product only as specified on the label.

The empty cartridge should be burned by an approved method and the ash should be disposed of according to appropriate Federal and local regulations.

U.S. Department of Agriculture  
Animal and Plant Health Inspection Service  
Plant Protection and Quarantine Programs  
Washington, DC 20250



NOTE: A 12 point type should be used in printing the word "Caution" an 8 point type should be used for the statement "Keep Out of Reach of Children."