

# DIBROM<sup>®</sup> CONCENTRATE

## INSECTICIDE

ACTIVE INGREDIENT:	By Wt.
*Naled .....	87.4%
OTHER INGREDIENTS: .....	12.6%
TOTAL .....	100.0%
*1,2-dibromo-2,2-dichloroethyl dimethyl phosphite	

**KEEP OUT OF REACH OF CHILDREN  
DANGER**

FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY:  
Transportation: CHEMTREC.....1-800-424-9300  
Other: AMVAC.....1-323-264-3910

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

##### DANGER

**CORROSIVE:** Causes irreversible eye and skin damage. May be fatal if swallowed, inhaled or absorbed through the skin. May cause allergic skin reaction. Do not get in eyes, on skin, or on clothing. Do not breathe vapor or spray mist.

**When handling this material wear:** coveralls over long-sleeved shirt and long pants; chemical-resistant gloves such as barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils and viton  $\geq$  14 mils; chemical-resistant footwear plus socks; protective eyewear; chemical-resistant headgear for overhead exposure; chemical-resistant apron when cleaning equipment, mixing, or loading; and respirator with either an organic-vapor removing cartridge with a pre-filter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) [(4-6)]], the handler PPE may be reduced or modified as specified in the WPS. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Remove contaminated clothing and wash before reuse.

### STATEMENT OF PRACTICAL TREATMENT

**If in eyes:** Immediately hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention immediately.

**If on skin:** Wash with plenty of soap and water. Get medical attention immediately.

**If swallowed:** Drink a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol. Contact a physician, Poison Control Center, or emergency center. Do not induce vomiting. Take person and product container to the nearest medical emergency treatment center.

**If inhaled:** Remove victim to fresh air. If not breathing, give artificial respiration and get medical attention immediately.

**Note to Physicians:** Emergency information - call 24 hours a day 1-323-264-3910. Naled is a cholinesterase inhibitor. Measurement of blood cholinesterase activity may be useful in monitoring exposure. If signs of cholinesterase inhibition appear, atropine sulfate is antidotal. 2-PAM (Protopam) is also antidotal and may be used in conjunction with atropine, but should not be used alone. Probable mucosal damage may contraindicate the use of gastric lavage.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish, aquatic invertebrates, and wildlife. Do not apply directly to water except when used over water as labeled for adult mosquito, blackfly, or housefly control. For terrestrial uses, do not apply directly to water, or to intertidal areas where surface water is present or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organism in neighboring areas. Do not contaminate water when disposing of equipment washwaters. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

### DIRECTIONS FOR USE

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

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

EPA REG. NO. 5481-480

EPA EST. NO. 5481-CA-1

**AMVAC**  
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Los Angeles, CA 90023, USA  
1-323-264-3910 • www.amvac-chemical.com

#### TANK MIXES

NOTICE: Tank mixing or use of this product with any other product, which is not specifically and expressly authorized by the label, shall be the exclusive risk of user, applicator, and/or application advisor. Read and follow the entire label of each product to be used in the tank mix with this product.

**DIBROM CONCENTRATE IS FOR USE ONLY BY TRAINED PERSONNEL IN COMMERCIAL PEST CONTROL AND PUBLIC HEALTH OR PEST ABATEMENT PROGRAMS.**

DIBROM Concentrate is a special formulation for use undiluted or diluted in diesel oil to be applied for the control of mosquitoes, houseflies and certain other nuisance insects. **This product cannot be diluted with water.**

### OPERATIONAL USE INSTRUCTIONS

• All equipment used in the mixing or application (by ground or air) of DIBROM Concentrate should be constructed of corrosion-resistant materials. Stainless steel, bronze, brass, fiberglass, polypropylene and rigid PVC have all proven fairly resistant to the effects of DIBROM Concentrate.

• Use of Teflon or Viton seals is recommended. Avoid use of steel or galvanized steel. Even when these materials are used to construct a spray system, a careful maintenance program involving flushing, cleansing and constant inspection must be followed.

• Strain DIBROM Concentrate as it is being loaded. Use a 100 mesh stainless steel or nylon screen. If product crystallization occurs, warm at 70°F until crystals disappear. The use of DIBROM Concentrate and some grades of diesel fuel may result in precipitates, which cause nozzle clogging and operational difficulties.

• Flushing the system following application is essential. Use of Heavy Aromatic Naphtha (HAN), "Jet A" aircraft fuel, Aromatic 150, Aromatic 200, and Aromatic 200ND have been reported as successful. Isopropyl or methyl alcohol is not recommended for flushing due to their flash point.

• DIBROM Concentrate must be applied using the correct droplet size. Over-atomization produces finer particles which either evaporate or dissipate too quickly and become unavailable for mosquito contact. The spread factor for DIBROM Concentrate on silicone or Teflon-coated slides is 0.54 and 0.7, respectively. If applied incorrectly, DIBROM Concentrate will spot certain automobile paint finishes. Careful attention to recommendations concerning nozzles, nozzle positioning, air speed and droplet size is essential to avoid paint spotting.

A technical bulletin "DIBROM Concentrate for use in Mosquito Control Programs" contains detailed information on equipment for ULV applications.

**Aerial Application:** Aerial application must be made with closed cockpit aircraft. Spray during periods when wind is 10 mph or less and when thermal activity is low. Nozzles must be positioned 45° to 90° (perpendicular to air flow) into the wind. This positioning results in the maximum wind shear across the face of the nozzles and creates the smallest particles. Air speed should be in excess of 100 mph to assure enough force to create maximum spray atomization. Aircraft flying at slower speeds should be equipped with atomizing nozzles. Use spray nozzles that will produce 30 to 80 micron size droplets. No more than 5% of the droplets should be larger than 80 microns.

### ADULT MOSQUITO CONTROL

**Adult Mosquito Control in Residential Areas, Municipalities, Tidal Marshes, Swamps, Woodlands, Agricultural Areas (when applied in wide-area public pest control programs sponsored by governmental entities), Livestock Pastures, Feed Lots and Pastures including Dairy Cattle:** It is not necessary to avoid farm buildings, dairy barns, feed or forage areas. Not for use on trees being grown for sale or other commercial use, or for commercial seed production, or for the production of timber or wood products, or for research purposes (unless applied in wide-area public pest control programs sponsored by governmental entities). Use in agricultural areas should be in a manner as to ensure that residues do not exceed the established federal tolerance for the active ingredient in or on raw agricultural commodities resulting from use for area pest control. Treat shrubbery and vegetation where mosquitoes may rest. Shrubby and vegetation around stagnant pools, marshy areas, swamps, residential areas, municipalities, woodlands, pastures, farm buildings and feed lots may be treated.

**Ultra Low Volume (ULV) Aerial Application:** Apply 1/2 to 1 fl. oz. of undiluted product per acre. Use the 1 oz. rate where heavy vegetation exists i.e., woodlands, etc.

**Dilute Aerial Application:** Dilute 50 to 100 oz. (1.6 to 3.1 qts.) DIBROM Concentrate in 100 gals. No. 2 Fuel Oil or diesel oil. Apply at the rate of 1 gal. diluted material per acre. This is equivalent to 0.05 to 0.10 lb. actual DIBROM per acre or dilute 1.0 fl. oz. DIBROM Concentrate with HAN (Heavy Aromatic Naphtha) to make 16 fl. oz. Apply at the rate of 16 fl. oz. of dilute mixture per acre. This is equivalent to 0.10 lb. actual DIBROM per acre.

**Ultra Low Volume (ULV) Ground Application:** Apply DIBROM Concentrate undiluted at the rate of 0.6 fl. oz. per minute at 5 mph; 1.2 fl. oz. per minute at 10 mph; and 1.8 fl. oz. per minute at 15 mph, applying a 300 ft. swath. These flow rates are equivalent to 0.02 lb. actual DIBROM per acre.

#### Special Instructions:

**CAUTION:** This application can be made only under the following conditions:

1. Application can be made only by appropriately licensed and certified personnel with public agencies or private contractors operating in conjunction with or under contract with such government agencies.
2. Application in calm air conditions is to be avoided.
3. Application is not to be made in the immediate vicinity of pedestrians.
4. Vehicles used to apply DIBROM Concentrate must be air conditioned or equipped with automatic speed control flow device.

**Dilute Ground Application:** Dilute 2 qts. (64 fl. oz.) of DIBROM Concentrate in soybean oil or HAN to make 5 gals. of dilute solution. Apply at the rate of 3 to 6 fl. oz. per minute at a vehicle speed of 5 mph applying a swath 300 ft. wide at 10mph; deliver 6 to 12 fl. oz. per minute; and at 15 mph deliver 9 to 18 fl. oz. per minute. This is equivalent to 0.01 to 0.02 lb. actual DIBROM per acre. Use the high rate and slower speed to penetrate dense vegetation.

**Thermal Fog Application:** Dilute 3.1 qts. (100 fl. oz.) to 99 gals. No. 2 Fuel Oil or diesel oil or 10 oz. per 10 gals. oil. Apply either at the rate of 40 gals. per hour at 5 mph vehicle speed, 80 gals./hour (10 mph) or 120 gals./hour (15 mph) applying swath 300 to 400 feet wide.

**BLACKFLIES, HOUSEFLIES, GNATS, CERTAIN OTHER NUISANCE INSECTS Small Flying Moths, Crane Flies, Midges, Adult Stable Flies (Dog Flies) in Residential Areas, Municipalities, Woodlands, Livestock Pastures, Feed Lots and Pastures Including Dairy Cattle:** It is not necessary to avoid farm buildings, dairybarns and, feed or forage areas. Not for use on trees being grown for sale or other commercial use, or for the production of timber or wood products, or for research purposes, (unless applied as wide-area public pest control programs sponsored by governmental entities).

**Thermal Fog Ground Application:** Dilute 1 gal. to 99 gals. of No. 2 Fuel Oil or diesel oil or 13 oz. per 10 gals. oil. Apply at a rate of 40 gals. per hour output at an average vehicle speed of 5 mph, applying swath 300 to 400 feet wide.

**Thermal Fog Aerial Application:** Dilute 100 to 230 fl. oz. (3/4 to 1-3/4 gals.) DIBROM Concentrate in 100 gals. No. 2 Fuel Oil or diesel oil. **Smaller insects – Gnats and Midges:** 3/4 to 1 gal. **Houseflies, Flying Moths:** 1 to 1-3/4 gals. Apply 1 gal. diluted material per acre. This is equivalent to 0.1 to 0.2 lb. actual DIBROM per acre. **Suppression of Blackflies:** Dilute 1.5 fl. oz. DIBROM Concentrate with 14.5 fl. oz. HAN. Apply at the rate of 16 fl. oz. diluted mix per acre. This is equivalent to 0.16 lb. actual DIBROM per acre.

#### HORN FLIES (Range Cattle)

**Airplane Application:** Apply 2 to 4 fl. oz. DIBROM Concentrate undiluted per acre. Use higher rate for heavier fly populations. This is equivalent to 0.2 to 0.4 lb. actual DIBROM per acre.

#### SUPPRESSION OF DEER FLIES

**Aerial Application:** Apply 1 to 2 fl. oz. DIBROM Concentrate undiluted per acre. Use higher rate in denser vegetation. This is equivalent to 0.1 to 0.2 lb. actual DIBROM per acre.

**Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crops there of rendered unfit for sale, use, or consumption.**

#### STORAGE AND DISPOSAL

**PROHIBITIONS:** Do not contaminate water, food, or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited.

**STORAGE:** Keep pesticide in original container. Do not put concentrate or dilute into food or drink containers. For help with any spill, leak, fire, or exposure involving this material, call day or night 1-800-424-9300.

**PESTICIDE DISPOSAL:** This product is acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Do not reuse container. Offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. Dispose of in a sanitary landfill or by other procedures allowed by State and local authorities.

**OR (the following statement is to be used on returnable containers)**

#### CONTAINER REUSE

**RETURNABLE CONTAINER:** This container is a dedicated, single product returnable container. Refill this container only with pesticide. Return empty container to seller or to location designated by seller as a collection point. Do not break seals, add anything to container or open container after use. Do not rinse or contaminate empty container. Do not dispose of empty container or use it for any other purpose.

#### LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label; (b) that this product is reasonably fit for the purposes set forth in the directions for use, subject to the inherent risks referred to herein, when it is used in accordance with such directions; and (c) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or in all states or under all conditions.

**THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SET FORTH HEREIN. THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE, TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF QUALITY OR PERFORMANCE. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS, WARNINGS OR CAUTIONS. BUYER'S EXCLUSIVE REMEDY AND MANUFACTURER'S OR SELLER'S EXCLUSIVE LIABILITY FOR ANY AND ALL CLAIMS, LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OF, OR THE REPAYMENT OF THE PURCHASE PRICE FOR, THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.**

AMVAC offers this product, and Buyer accepts it, subject to the foregoing Limited Warranty which may be varied only by agreement in writing signed by an authorized representative of AMVAC.

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