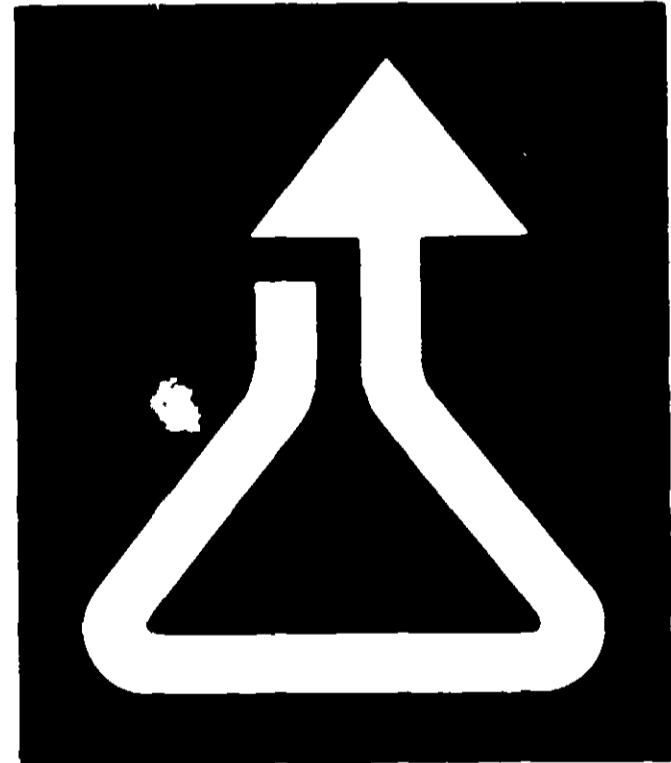


DITHANE M-22 SPECIAL WITH ZINC CONCENTRATE



**ROHM
AND
HAAS**
PHILADELPHIA, PA. 19105

AGRICULTURAL FUNGICIDE

FOR DUST BLENDING AND FORMULATING ONLY
Before using refer to manufacturers technical bulletins and this label.

CAUTION
KEEP OUT OF REACH OF CHILDREN
May cause irritation of nose, throat, eyes and skin. Do not breathe dust. In case of skin contact wash with water; for eyes wash copiously with water and get medical attention.
Toxic to fish. Keep out of any body of water.

IMPORTANT: Keep away from fires and sparks. Store in a cool, dry place. Do not allow to become wet or overheated in storage. This may bring on chemical changes which will impair the fungicidal effectiveness of DITHANE M-22 SPECIAL CONCENTRATE and may also generate flammable vapors. Keep container closed when not in use.

Do not reuse empty container. Dispose of by perforating and either burning in strict accordance with air pollution control laws or by burying in a safe place in noncrop lands away from water supplies.

ACTIVE INGREDIENT
Maneb (Manganese ethylene bisdithiocarbamate)..... 80%

INERT INGREDIENTS
(including ZnSO₄)..... 20%
100%

USDA Registration No. 707-101
U.S. Patents 2,974,156 and 3,379,610

NET WEIGHT

LBS.

ACCEPTED
June 16, 1971
707-101



DITHANE M-22 SPECIAL CONCENTRATE FORMULATING, MIXING, PACKAGING and LABELING GUIDE

USDA Registration No. 707-101

INTRODUCTION

DITHANE M-22 SPECIAL fungicide concentrate dust base contains 80 percent of the active ingredient, maneb (manganese ethylene bisdithiocarbamate). DITHANE M-22 SPECIAL Concentrate can be combined with various inert diluents and insecticides for application in dust form. Suggestions for formulating, mixing, packaging and labeling DITHANE M-22 SPECIAL dusts are offered here as a guide to manufacturers.

FORMULATION

Stability

The stability of DITHANE M-22 SPECIAL Concentrate has been improved markedly through continuing research on the formulation and manufacture of this pesticide. The use of patented stability additives has now provided a product adequately stable for at least two years when kept in the original containers and formulated according to label recommendations.

Diluents

Stability studies with various diluents for DITHANE M-22 SPECIAL dusts indicate that treated calcium carbonate, pyrophyllite or wettab sulphur are the best diluents for this use. The Attapulgate type clays and Barden clay are not suggested as diluents for DITHANE M-22 SPECIAL when extended storage is anticipated. Diluents containing less than 0.5 percent moisture have been found to be excellent diluents for DITHANE M-22 SPECIAL Concentrate.

Compatibility

DITHANE M-22 SPECIAL Concentrate is compatible with various other pesticides commonly used in dust formulations.

Concentration

The concentration of DITHANE M-22 SPECIAL can be varied to meet particular needs. However, the usual concentration is 6 percent of DITHANE M-22 SPECIAL. Concentrations below this level are recommended only for special situations.

MIXING

Dusts containing DITHANE M-22 SPECIAL Concentrate do not require any special processing, and can be mixed satisfactorily in standard dust mixing equipment.

PACKAGING

DITHANE M-22 SPECIAL dusts should be packaged in air-tight, moisture-proof packages, insofar as it is practical to do so, and stored in a cool, dry place.

LABELING

The trade name DITHANE is well established and known to growers throughout the world. Agricultural authorities and published recommendations frequently refer to DITHANE products by trade name. Rohm and Haas Company sponsors considerable advertising for DITHANE products in local and national farm publications as well as in grower literature. It is suggested that dust mixers identify their products as made with DITHANE M-22 SPECIAL.

Active Ingredient

The active ingredient in DITHANE M-22 SPECIAL is manganese ethylene bisdithiocarbamate, also referred to as maneb. Present Federal registration requires the active ingredient to be declared as "maneb" (manganese ethylene bisdithiocarbamate).

It is common practice in agricultural dusts, to declare slightly less active ingredients than calculated to compensate for loss of activity on mixing or in storage or imperfect blending. It is suggested that at least a 5 percent margin be allowed in declaring the active ingredient for DITHANE M-22 SPECIAL dusts. A dust containing 6 percent DITHANE M-22 SPECIAL would normally be labeled as "4.5 percent maneb (manganese ethylene bisdithiocarbamate)."

A statement of the metallic manganese content is optional under the Federal registration. DITHANE M-22 SPECIAL contains 16.5 percent manganese equivalent. A formulation containing 6 percent DITHANE M-22 SPECIAL would declare 0.98 percent metallic manganese. See specimen label.

CAUTION STATEMENT

Federal registration requires on the front panel of the label the word "CAUTION" in 18 point type (for labels over 30 square inches in size) to be followed by the words "KEEP OUT OF REACH OF CHILDREN" in 12 point type (See USDA regulations for type size requirements for smaller labels). Additional cautions must be made in regard to handling, storage and contamination of foods and waters (See the specimen label for details).

If insecticides are combined with DITHANE M-22 SPECIAL such precautionary labeling as is required for the particular insecticides must be added.

DITHANE M-22 SPECIAL dusts sold in interstate trade are subject to the Federal Insecticide, Fungicide and Rodenticide Act and must be registered with the Pesticides Regulation Division, Agricultural Research Service, U.S. Department of Agriculture, Washington, D.C. 20250, and the Federal Registration Number must be shown on the label. Federal regulations also require the net contents and name and address of the manufacturer or seller, and the proper use directions to be on the label. Also most states require annual registration. Information may be obtained by contracting the State Department of Agriculture in each state where the product is to be sold.

SPECIMEN LABEL

We offer the following XYZ specimen label as a general guide and format which should be followed in preparing labels containing DITHANE M-22 SPECIAL Concentrate. While our suggestions follow the present USDA requirements, dust formulators should determine whether local or state regulations require modifications or additions.

**6% DITHANE M-22 SPECIAL DUST
A Fungicidal Dust**

ACTIVE INGREDIENT:

Maneb (Manganese ethylene bisdithiocarbamate) 4.5%
(Metallic manganese content . . . 0.98 %)

INERT INGREDIENTS: (Including ZnSO₄) 95.5%
Total 100.0%

CAUTION

KEEP OUT OF REACH OF CHILDREN

May cause irritation of nose, throat, eyes and skin. Do not breathe dust . In case of skin contact wash with water; for eyes wash copiously with water and get medical attention.

Toxic to fish. Keep out of any body of water. Apply only as specified on this label.

IMPORTANT

Keep away from fire and sparks. Store in a cool, dry place. Do not allow to become wet or overheated during storage. This may bring on chemical changes which will impair the fungicidal effectiveness of maneb and may also generate flammable vapors. Keep container closed when not in use.

RECOMMENDATIONS

DITHANE M-22 SPECIAL Concentrate (maneb) is currently cleared for use on the following crops: Almonds, apples, apricots, asparagus, bananas, beans (dry), beans (succulent), broccoli, brussels sprouts, cabbage, carrots, cauliflower, celery, , collards, corn (sweet), cranberries, cucumbers, eggplant, endive, figs, grapes, kale, kohlrabi, lettuce, melons, mustard greens, nectarines, onions, papaya, peaches, peppers, potatoes, potato (seed pieces), pumpkins, rhubarb (greenhouse), spinach, squash (summer and winter), tomatoes (field), tomatoes (greenhouse) and turnips.

In preparing use labels for any of the above listed crops reference must first be made to the USDA Summary of Registered Agricultural Pesticide Chemical Uses noting the dosage allowed on an acre basis as well as the limitations pertaining to specific crops in relation to the dosage rates.

Current up-to-date registration information covering DITHANE M-22 SPECIAL Concentrate for crops and use rates may also be obtained by writing to Rohm and Haas Company in Philadelphia, Pa.

DIRECTIONS FOR USE

DITHANE M-22 SPECIAL dust can be used for the control of many common diseases of vegetables and field crops. DITHANE M-22 SPECIAL dust may be applied to either moist or dry foliage any time dusting conditions are favorable. Applications should begin when the plants are small. Use 15 to 50 pounds per acre depending on the size of plants. Repeat at 5 to 10 day intervals depending on the severity of disease conditions. Dusters should be adjusted to give uniform and thorough coverage.

DITHANE is a trademark of Rohm and Haas Company, Philadelphia, or of its subsidiaries or affiliates. The Company's policy is to register its trademarks where products designated thereby are marketed by the Company, its subsidiaries or affiliates.

NOTICE: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use, storage or handling of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use. These risks include, but are not limited to, loss to plants, crops and animals to which the material is applied, failure to control pests, damage caused by drift to other plants or crops, and personal injury.

DITHANE M-22 CONCENTRATE may also be used to formulate seed treatment fungicides. In seed treatment fungicides it is necessary to add a suitable dye or discoloring chemical which will impart an unnatural color to seeds so treated. This unnatural color must not be readily removed by washing or other physical means.

The following is a listing of crop seeds for treatment using DITHANE M-22 CONCENTRATE (maneb) as the active ingredient for a seed dressing compound. This list serves as a guide in preparing labels, however, a thorough review must be made of the current USDA Summary of Registered Uses for Maneb.

DITHANE M-22 IN OUNCES

<u>CROP</u>	<u>MACHINE APPLICATION</u>	<u>PLANTER BOX APPLICATIONS</u>	<u>DISEASES</u>
Barley	0.93/bu	1.25/bu	covered and false loose smuts, damping-off, seed rots, seedling blights.
Beans (field)		1.70/bu	damping-off, seed rots, seedling blights.
Com		1.70/bu	damping-off, seed rots, seedling blights.
Cotton		12.0 /bu	damping-off, seed rots, seedling blights.
Flax	0.93/bu	2.50/bu	damping-off, seed rots, seedling blights.
Oats	0.93/bu	1.25/bu	damping-off, seed rots, seedling blights, smuts.
Peas		1.70/bu	damping-off, seed rots, seedling blights.
Rye	0.93/bu	1.25/bu	bunt, damping-off, seed rots, seedling blights.
Sugar Beets	6-10/100 lbs.		damping-off, seed rots, seedling blights.
Soybeans	0.93/bu	1.25/bu	damping-off, seed rots, seedling blights.
Wheat	0.93/bu	1.25/bu	bunt, damping-off, seed rots, seedling blights.