

BEST-DOCUMENT AVAILABLE

FUNGICIDE ZV

with COMMENTS
in EPA Letter Dated

APR 11 1984

MILDEW AND BACTERIAL
FOR INDUSTRIAL USE

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
is hereby registered as a pesticide
under EPA Reg. No.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER

Irritative, causes eye damage. May cause irritation to nose, throat and skin. Harmful if swallowed, inhaled or absorbed through skin. Do not get in eyes. Protect eyes when handling concentrate. Avoid contact with skin and clothing. Avoid breathing spray.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of wastes.

DIRECTIONS FOR USE

GENERAL CLASSIFICATION

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

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

STORAGE Keep container closed in original container, and protect from freezing. Do not use the container for other purposes. Use an inert absorbent and transfer to a suitable container.

PESTICIDE DISPOSAL: Pesticide wastes are 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 nearest Federal Government representative at the nearest EPA Regional Office for guidance.

See side panel for additional directions for use.

ACTIVE INGREDIENTS:	20%
Ziram (Zinc Dimethyldithiocarbamate)	18.4%
Zinc 2-Mercaptobenzothiazole	1.6%
(Total Zinc as Metallic...4.2%)	
INERT INGREDIENTS:	80%
(Product contains 1.8 lbs. active per gallon)	100%

KEEP OUT OF REACH OF CHILDREN

DANGER

STATEMENT OF PRACTICAL TREATMENT

FIRST AID: In case of contact, immediately flush eyes or skin with plenty of water for at least 15 min. For eyes, call a physician. Remove and wash contaminated clothing before reuse. If swallowed, drink promptly a large quantity of milk, egg whites, gelatin solution or if these are not available, drink large quantities of water. Call a physician immediately. See side panel for additional precautionary statements.

WEIGHT: Formulated Product of Sandoz Colors & Chemicals, Fair Lawn Ave. S 3rd St., Fair Lawn, NJ 07410

ESTABLISHMENT NO: 51447-NJ-1
EPA Reg. No. : 51447-1

NET CONTENTS 500 LBS.

WARRANTY & RESULTS: Sandoz, Inc. makes no warranty, express or implied, including the warranties of merchantability and/or fitness for any particular purpose concerning this material, except those which are contained on this label.

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with COMMENTS
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APR 11 1984

MILDEW AND BACTERIAL
FOR INDUSTRIAL USE

Under the Federal Insecticide,
Fungicide and Rodenticide Act
as amended, this pesticide
is registered under EPA Reg. No.

FIVE INGREDIENTS:		
Zinc Dimethyldithiocarbamate	18.4%	20%
2-Mercaptobenzothiazole	1.6%	
(Total Zinc as Metallic...4.2%)		
NET INGREDIENTS:		80%
contains 1.8 lbs. active per gallon)		100%

KEEP OUT OF REACH OF CHILDREN

DANGER

STATEMENT OF PRACTICAL TREATMENT

FIRST AID: In case of contact, immediately flush skin with plenty of water for at least 15 minutes. If in eyes, call a physician. Remove and wash contaminated clothing before reuse. If swallowed, drink promptly a large quantity of water. If egg whites, gelatin solution or if these are available, drink large quantities of water. Call a physician immediately.

See panel for additional precautionary statements.

Formulated Product of Sandoz Colors & Chemicals, Fair Lawn Ave. & 3rd St., Fair Lawn, NJ 07410

SHIPMENT NO: 51447-NJ-1
Lot No. : 51447-1

NET CONTENTS 450 LBS.

WARRANTY OF RESULTS: Sandoz, Inc. makes no warranty, express or implied, including the warranty of merchantability and/or fitness for any particular purpose concerning this material, except those which are contained on this label.

CONTAINER DISPOSAL: Do not reuse this container. If reuse of this container is desired, it must be approved for pesticide containers, or bury in a safe place.

GENERAL: Consult Federal, State or local disposal authorities for approved alternative procedures such as limited open burning. If burned, stay out of smoke.

CELLULOSIC TEXTILES: Before addition to the treating bath, FUNGICIDE ZV should be premixed with 4-5 times its weight of cold water with thorough mixing. The temperature of the treating bath should preferably be between 100° and 120°F for optimum results.

For rendering cotton fabrics mildew resistant, 5% to 10% of FUNGICIDE ZV on the volume of the bath, is usually sufficient to deposit the necessary amount of the fungistatic agent in the material.

In case of heavy fabrics such as duck and canvas, a higher concentration up to 15% is sometimes necessary.

In order to meet the accelerated inoculation test for mildew resistance, a minimum deposit of 0.5% of the fungicide is required. For the soil burial test as required by government specifications, a deposit of 1.0% to 1.5% is necessary.

As a bacteriostatic agent or preservative, the concentration of FUNGICIDE ZV recommended is 3% to 5% on the volume of the bath. The minimum deposit of bactericidal agent is 0.5% in most cases.

In the case of highly absorbent materials such as cotton wadding, the wet pickup will be 10% or better, the lower percentage deposit will be sufficient.

FUNGICIDE ZV

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ACCEPTED
with COMMENTS
in EPA Letter Dated:

APR 11 1984

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
recommended for the pesticide
registered under EPA Reg. No.
EPA 497

PRESERVATIVE FOR CELLULOSIC TEXTILES

FUNGICIDE ZV is an efficient mildew and bacterial inhibitor for use on cotton, rayon and paper products.

The active ingredients are a synergistic mixture of zinc salts of dimethyldithiocarbamic acid and 2-mercaptobenzothiazole.

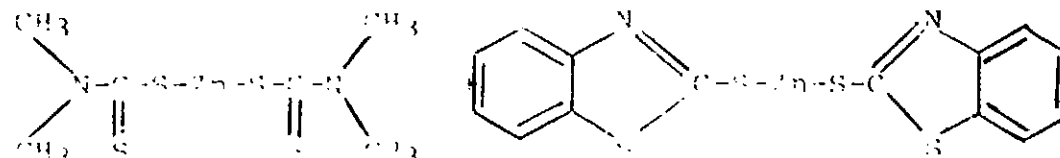
It is highly effective against cellulose destroying fungi such as Chaetomium globosum and Metarrhizium glutinoxum, as well as against a wide variety of common bacteria.

FUNGICIDE ZV is superior to the G-4 type of fungicides, in that it has practically no odor and does not discolor white materials to which it is applied.

FUNGICIDE ZV does not provide water repellency by itself, but to obtain this property if required on specific applications, the use of CEROL[®] A Liquid in the same bath is recommended.

<u>Chemical composition:</u>	Zinc dimethyldithiocarbamate	18.4%
	Zinc 2-mercaptobenzothiazole	1.6%
	Total zinc as metallic	4.2%

Formula:



RECEIVED

MAR 11 1984

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PRESERVATIVE FOR CELLULOSIC TEXTILES

PHYSICAL CHARACTERISTICS

FUNGICIDE ZV is a soft white paste which is readily dispersible in warm water (90°-100°F) to give a stable dispersion.

It is nonionic in type and neutral in reaction, having a pH range of 7.0 to 7.5.

It has excellent storage properties under normal atmospheric conditions, but like all emulsions and dispersions should be protected from freezing.

APPLICATION

Before addition to the treating bath, FUNGICIDE ZV should be premixed with four to five times its weight of cold water with thorough mixing. The temperature of the treating bath should preferably be between 100° and 120°F for optimum results.

For rendering cotton fabrics mildew resistant, 5% to 10% of FUNGICIDE ZV on the volume of the bath, is usually sufficient to deposit the necessary amount of the fungistatic agent in the material.

In order to meet the accelerated inoculation test for mildew resistance, a minimum deposit of 0.5% of the active fungicide is required. To meet the soil burial test as required in some government specifications, a deposit of 1.0% to 1.5% is necessary.

As a bacteriostatic agent or sanitizer, the concentration of FUNGICIDE ZV recommended is 3% to 5% of the volume of the bath. The minimum deposit of bacteriostatic agent is 0.5% in most cases.

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PRESERVATIVE FOR CELLULOSIC TEXTILES

PHYSICAL CHARACTERISTICS (Continued)

In the case of highly absorbent materials such as cotton wadding where the wet pickup is 100% or better, the lower percentage given above is usually sufficient.


In applications where water repellency is required, CEROL A Liquid may be added to the bath containing FUNGICIDE ZV in proportions of 5% to 10% on the volume of the bath. The use of CEROL A Liquid in this application, will minimize the loss of fungicide and bactericide by water leaching.

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provided that you have corrected the labeling deficiencies mentioned above and that you send us 5 copies of the final printed labeling under which you ship the subject product.

Your application was reviewed under Section 162.9-1(b)7 and 11 (Federal Register, Vol 44, pages 27951 and 27952) which permits acceptance of certain amendments for registration without supporting data.

Sincerely yours,



Henry M. Jacoby
Product Manager (21)
Fungicide-Herbicide Branch
Registration Division (TS-767)

RD-FHB:DCR-31829:E.Wilson:KIM:Raven:557-2226:RD-02:4/10/84:Del.4/19/84

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