

Reg # 707-53
PM 12
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JUN 25 1985

Kay L. McCarthy, Ph.D.
Product Registration Manager
Rohm and Haas
Independence Mall West
Philadelphia, PA 19105

Dear Dr. McCarthy:

Subject: Karathane WD
EPA Registration No. 707-53
Date of Submission: May 23, 1985

The labeling referred to above has been reviewed and is being accepted on the condition that you comply with the following requirements for revising your labeling.

Add the following:

When mixing/loading and spraying, wear midforearm to elbow length chemical resistant gloves and boots or overshoes, one-piece overalls which have long sleeves and longpants, and face shield or goggles. Mixer/loaders should in addition wear a chemical resistant apron.

Any article of clothing worn while applying product must be cleaned before reusing. Clothing which has been drenched or heavily contaminated should be disposed of in accordance with state or local regulations.

Instead of clothing and equipment specified above, the applicator can use an enclosed tractor cab with filtered air supply.

Your statement "The Signal Word changes for the technical and Liquid Concentrate have been made to reflect the potential for severe eye irritation with these products" is inaccurate. Rather, the signal word is based on eye irritation studies which show dinocap in these formulations as a severe irritant. Refer to summary of data submitted March 1, 1985.

If you have further questions please call or write to me.

Sincerely yours,

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Jay S. Ellenberger Product Manager (12)

~~Insecticide-Rodenticide Branch~~
Registration Division (767)

SYMBOL							
SURNAME	JOB:92915	Kendrick:898-1270	RD	85/34:6/18	85:DEL:6/28/85	SG	
DATE							

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SEE PAMPHLET IN BOTTOM FLAP FOR USE DIRECTIONS

FOR AGRICULTURAL USE ONLY OR ONLY
FOR SALE TO, USE, AND STORAGE BY SERVICEPERSONS

KARATHANE WD

AGRICULTURAL FUNGICIDE
AND MITICIDE

ACCEPTED
with COMMENTS
by EPA Letter Dated

JUN 25 1985

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

KEEP OUT OF REACH OF CHILDREN

CAUTION

Before using this product, read the entire Precautionary Statements, Conditions of Sale and Warranty, Directions For Use, Use Restrictions, and Storage and Disposal Instructions on side and back panels and attached use directions. If the Conditions of Sale and Warranty are not acceptable, return the product unopened within thirty days of purchase to the place of purchase.

ACTIVE INGREDIENTS

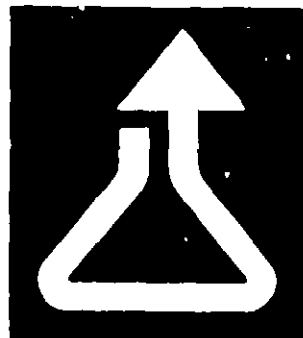
2,4-Dinitro-6-octyl* phenyl crotonate	18.25%
2,6-Dinitro-4-octyl* phenyl crotonate	
Nitrooctyl* phenol (principally dinitro)	1.25%

INERT INGREDIENTS 80.50%

*A mixture of 1-methylheptyl,
1-ethylhexyl, and 1-propylpentyl isomers 100.00%

EPA Reg. No. 707-53
EPA Est. No. 707-PA-1

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**ROHM
AND
HAAS**

PHILADELPHIA, PA 19105

NET WEIGHT

3 LBS
(1.361 KG)

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed, absorbed through the skin or inhaled. Causes moderate eye, skin, nose and throat irritation. May cause allergic skin reaction in susceptible individuals. Avoid contact with skin, eyes, and clothing. Avoid breathing dust or spray mist.

During mixing, loading and application with airblast sprayers wear long sleeved shirt, long pants, hat, impervious gloves and boots, and goggles or face shield.

During other applications wear long sleeved shirt, long pants and hat.

Wash thoroughly with soap and water after handling and before eating or smoking. Remove contaminated clothing and wash before re-use.

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Drink 1 or 2 glasses of water. Call a physician. Never give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Administer sedatives if necessary to control apprehension and excitement. Be prepared to counteract respiratory depression and hypotension which may occur following the administration of anti-convulsants.

IF INHALED: Remove victim to fresh air. Treat the victim symptomatically. If irritation persists, call a physician.

IF ON SKIN: Wash exposed areas with plenty of soap and water. If irritation persists, call a physician.

IF IN EYES: Flush eyes with plenty of water for at least 15 minutes. If irritation persists, call a physician.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not apply directly to water or wetlands. 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.

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CONDITIONS OF SALE AND WARRANTY

Rohm and Haas warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with label directions under normal conditions of use. **ROHM AND HAAS MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES EITHER OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE.** Handling, storage and use of the product by Buyer or User are beyond the control of Rohm and Haas and Seller. Risks such as crop injury, ineffectiveness or other unintended consequences resulting from, but not limited to, weather or soil conditions, presence of other materials, disease, pests, drift to other crops or property or failure to follow label directions will be assumed by the Buyer or User. **IN NO CASE WILL ROHM AND HAAS OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS PRODUCT.**

DIRECTIONS FOR USE

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

(SEE PAMPHLET IN BOTTOM FLAP FOR USE DIRECTIONS)

RE-ENTRY AND WORKER PROTECTION STATEMENTS

Do not enter treated areas without protective clothing until sprays have dried. Because certain states may require more restrictive re-entry intervals for various crops treated with this product, consult your State Department of Agriculture for further information. Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons. SEE USE DIRECTIONS FOR ADDITIONAL RE-ENTRY STATEMENTS.

STORAGE AND DISPOSAL

STORAGE: Do not store at temperatures above 90°F for periods longer than 48 hours.

PESTICIDE DISPOSAL: Do not contaminate water, food or feed by storage or disposal. Pesticide wastes are toxic. 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: Completely empty into application equipment. Then dispose of in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of open bodies of water.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Scoop or shovel solid material into a suitable container for disposal. Remove contaminated clothing promptly and wash exposed areas with soap and water. Wash clothing before re-use. Keep spill out of open bodies of water. Refer to Precautionary Statements.

KARATHANE® WD

Agricultural Fungicide and Miticide

FOR AGRICULTURAL USE ONLY OR
ONLY FOR SALE TO, USE, AND
STORAGE BY SERVICEPERSONS

NOTICE: Before using this product, read the entire Precautionary Statements, Conditions of Sale and Warranty, Directions for Use, Use Restrictions and Storage and Disposal Instructions. If the Conditions of Sale and Warranty are not acceptable, return the product unopened within thirty days of purchase to the place of purchase.

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Harmful if swallowed, absorbed through the skin or inhaled. Causes moderate eye, skin, nose and throat irritation. May cause allergic skin reaction in susceptible individuals. Avoid contact with skin, eyes, and clothing. Avoid breathing dust or spray mist.

During mixing, loading and application with airblast sprayers wear long sleeved shirt, long pants, hat, impervious gloves and boots, and goggles or face shield.

During other applications wear long sleeved shirt, long pants and hat.

Wash thoroughly with soap and water after handling and before eating or smoking. Remove contaminated clothing and wash before re-use.

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Drink 1 or 2 glasses of water. Call a physician. Never give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Administer sedatives if necessary to control apprehension and excitement. Be prepared to counteract respiratory depression and hypotension which may occur following the administration of anti-convulsants.

IF INHALED: Remove victim to fresh air. Treat the victim symptomatically. If irritation persists, call a physician.

IF ON SKIN: Wash exposed areas with plenty of soap and water. If irritation persists, call a physician.

IF IN EYES: Flush eyes with plenty of water for at least 15 minutes. If irritation persists, call a physician.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not apply directly to water or wetlands. 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.

ACTIVE INGREDIENTS

2,4-Dinitro-6-ethyl-phenyl crotonate	18.25%
2,6-Dinitro-4-ethyl-phenyl crotonate	1.25%
Methoxyethyl phenol (principally dimer)	80.50%
INERT INGREDIENTS	100.00%

*A mixture of 1-methylheptyl, 1-octylheptyl, and 1-propylheptyl isomers
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CONDITIONS OF SALE AND WARRANTY

Rohm and Haas warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with label directions under normal conditions of use. ROHM AND HAAS MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES EITHER OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE. Handling, storage and use of the product by Buyer or User are beyond the control of Rohm and Haas and Seller. Risks such as crop injury, ineffectiveness or other unintended consequences resulting from, but not limited to, weather or soil conditions, presence of other materials, disease, pests, drift to other crops or property or failure to follow label directions will be assumed by the Buyer or User. IN NO CASE WILL ROHM AND HAAS OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS PRODUCT.

DIRECTIONS FOR USE

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

RE-ENTRY AND WORKER PROTECTION STATEMENTS

Do not enter treated areas without protective clothing until sprays have dried. Because certain states may require more restrictive re-entry intervals for various crops treated with this product, consult your State Department of Agriculture for further information. Do not apply this product in such a manner as to directly or through drift, expose workers or other persons. The area being treated must be vacated by unprotected persons. Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Written warnings must include the following information:

CAUTION

(Insert area or field description) treated with KARATHANE WD on (insert date of application). Do not enter treated areas without protective clothing until sprays have dried. In case of accidental exposure: Call a doctor (physician), clinic or hospital immediately. Explain that the victim has been exposed to KARATHANE WD and describe his condition. For further information see the "Statement of Practical Treatment."

Oral warnings must include the same information that is in the written warnings.

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GENERAL USE INFORMATION

KARATHANE WD fungicide-miticide will protect against and eradicate powdery mildew when used according to the label directions.

KARATHANE WD fungicide-miticide also provides effective control or suppression of the following mites, including those that may be resistant to other miticides:

Citrus Red Clover	European Red Peach Silver	Plum Nursery Red Spider (two-spotted)
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KARATHANE WD fungicide-miticide possesses short residual activity and is effective only against motile mite forms. Although of short residual activity, effective reduction of motile mite populations will provide economic mite control for many weeks. When used alone, application should be repeated every 7 to 10 days to kill mites emerging from eggs and unaffected by previous sprays. Alternating sprays or tank mix combinations with other miticides will delay the development of mite resistance to other miticides and improve initial mite kill.

USE RATE DETERMINATION

Carefully read, understand, and follow label rates and use limitations.

Label use rates are for single strength (dilute) sprays. KARATHANE WD fungicide-miticide may be used in concentrate or airblast sprayers but correct use rates must be maintained. Do not use in concentrate sprays in California.

When spray volumes of less than 100 gallons are required to provide a thorough full coverage spray, the following table may be used to determine the proper use rate:

Recommended KARATHANE WD Fungicide-Miticide Label Use Rate Per 100 Gals. Spray (Oz.)	Teaspoons KARATHANE WD Fungicide-Miticide Required in Varied Single Strength Spray Gallonages*				
	1 gal.	2 gals.	3 gals.	5 gals.	10 gals.
4	1/4	1	1 1/4	2 1/4	5
6	3/8	1 1/4	2 1/4	3 3/4	7 1/2
8	1	2	3	5	10
12	1 1/4	3	4 1/4	7 1/4	15
16	2	4	6	10	20

*1 tablespoon = 3 teaspoons

MIXING

Slowly place into spray tank as it is being filled or premix as a slurry prior to adding to spray tank. Add other co-applied fungicides, miticides, insecticides, growth regulators, micro-nutrients, and spray adjuvants after KARATHANE WD fungicide-miticide has been placed into suspension.

COMPATIBILITY

KARATHANE WD fungicide-miticide is compatible with DIKAR®, DITHANE®, captan, ferbam, glyodin, and thiram fungicides and with most insecticides and miticides including azinphos-methyl, demeton, and parathion. Exceptions are noted under specific use directions. When preparing tank mixes, user should consult current spray compatibility charts or State Extension Service Specialists prior to actual use.

SPRAY ADJUVANTS

The addition of agricultural surfactants, to KARATHANE WD fungicide-miticide sprays, will improve initial spray deposits, redistribution, and weatherability. The following spray adjuvants have been especially formulated to optimize the performance of foliar-applied agricultural chemicals:

- | | |
|-----------------|--|
| TRITON AG-98™ | A low foam, nonionic, general purpose spray adjuvant. May be used in dilute or concentrate sprays applied by aircraft or ground equipment. |
| TRITON® B-1956® | A water-dispersible, resin-based nonionic surfactant which resists re-wetting and removal by rain. Effective with dilute sprays applied by ground equipment. |
| TRITON CS-7™ | A spreader-binder designed specifically for use in concentrate and low volume sprays applied by aircraft or ground equipment. |

Place KARATHANE WD fungicide-miticide into suspension prior to adding an adjuvant to the spray mixture. Read and carefully observe the precautionary statements and all other information appearing on both product labels prior to spray preparation.

APPLICATION

Thorough, full-coverage foliar sprays generally result in optimum powdery mildew and mite control. To achieve good foliar coverage use proper spray pressure, gallonage per acre, spray nozzles, discs, nozzle spacing, and tractor speed. Consult spray nozzle and accessory catalogues for specific information on proper equipment calibration.

When applied with hand pressurized sprayers, thoroughly spray plant foliage until runoff.

PEST MONITORING

KARATHANE WD fungicide-miticide should be applied when the first signs of powdery mildew are noted or when mites are observed on plant foliage.

RESTRICTIONS

Users should carefully read, understand, and follow all use restrictions prior to using KARATHANE WD fungicide-miticide.

FRUITS

Crop	Control of	Rate Of KARATHANE WD Fungicide-Miticide Per Application		Timing and Remarks	Restrictions
		Oz./100 Gal.	Lb./A		
Apples (orchard)	Powdery mildew	8 to 12	2½ to 3¼	For powdery mildew begin application at delayed dormant to pink stage and continue sprays at 7 to 14 day intervals until terminal growth is completed or mildew activity has ceased. Applications should not be more than 14 days apart. Control measures are needed from the time buds break or at first signs of mildew activity, and should be continued through terminal growth and new bud formation to reduce overwintering infection in the buds. From 4 to 8 applications are usually required per season depending on variety, location and disease severity. Thorough coverage is necessary. In the East, ¼ lb. per 100 gals. water may be used on varieties (such as Delicious, MacIntosh & Stayman) which are slightly to moderately susceptible to powdery mildew, and on susceptible varieties under light infection conditions. Apply every 5 to 7 days as needed or until terminal growth is completed. When mildew growth is heavy add a spreader-sticker for thorough wetting of mildew spores and mycelium. Certain spreader-stickers will reduce the deposit on maturing fruit. TRITON B-1956 is recommended at 1 to 2 ozs. per 100 gals. of dilute spray.	Do not use within 21 days of harvest. Do not graze livestock in treated areas or feed cover crops grown in treated orchards to animals.
	Clover mites European red mites Red spider (two-spotted) mites			For mites, apply at first signs of an infestation and continue on a 7 to 14 day schedule as long as necessary. Do not use more than ½ lb. of 25% wettable parathion with KARATHANE WD fungicide-miticide from pink through second cover or apply in separate applications. Other phosphate insecticides such as azinphos-methyl, demeton, and malathion, are compatible with KARATHANE WD fungicide-miticide.	
Apples (nursery)	Powdery mildew Red spider mites Clover mites	8	—	On non-bearing nursery stock, apply at first sign of powdery mildew and/or mites, at 7 to 10 day intervals or as necessary.	Do not graze livestock in treated areas or feed cover crops grown in treated areas to animals.
Apricots	Powdery mildew Clover mite European red mite Peach silver mite Plum rust mite Two-spotted spider mite	8 to 12	2½ to 3¼	Begin application at pink bud and petal fall and in subsequent spring sprays if disease persists, and post harvest.	Do not apply within 45 days of harvest. Do not graze livestock in treated areas or feed cover crops grown in treated orchards to animals. Do not use in California.
Cherries (nursery)	Refer to apples (nursery)				Do not apply to trees that will bear fruit within one year of treatment.
Citrus (nursery)	Citrus red mite	8	—	First apply when mites are noted and repeat 10 to 14 days later.	Apply only to nursery trees or to young trees which will not bear fruit within one year.

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FRUITS (cont'd)

Crop	Control of	Rate Of KARATHANE WD Fungicide-Miticide Per Application		Timing and Remarks	Restrictions
		Oz./100 Gal.	Lb./A		
Grapes	Powdery mildew Mites	8	1 to 2 1/2	Begin applications when mildew first appears (usually during early stages of foliage growth) and repeat at 10 to 14 day intervals. From 2 to 6 applications may be required.	Do not use within 21 days of harvest. Do not use in California.
Pearches (orchard)	Refer to Appricots				Do not use in California.
Peaches (nursery)	Refer to Apples (nursery)				Do not use in California.
Pear	Refer to Apples (orchard)				

VEGETABLES

Cantaloupes	Powdery mildew	6 to 8	1/2 to 1	Apply when powdery mildew signs are first observed and repeat at 7 to 10 day intervals. From 3 to 10 applications may be required. On cucumbers and summer squash, spray a maximum of 3 to 4 times to an individual set of fruit.	Do not use within 7 days of harvest. Do not use in California.
Cucumbers (field)	Refer to Cantaloupes				Do not use in California.
Cucumbers (greenhouse)	Powdery mildew	4 to 8	—	Apply in a light thorough spray. Begin when mildew first appears and repeat at 5 to 7 day intervals or as necessary.	Do not apply when temperatures exceed 90°F. Do not use within 7 days of harvest. Do not use in California.
Melons	Refer to Cantaloupes				Do not use in California.
Pumpkins	Refer to Cantaloupes				Do not use in California.
Squash	Refer to Cantaloupes				Do not use in California.

FLOWERS

Crop	Control of	Timing and Remarks
African violets Aster Begonias Calendulas Chrysanthemums Cinerarias Dahlias Delphiniums Euonymus Gardenias Hydrangeas Larkspurs Lilies	Powdery mildew Red spider mites Clover mites	GENERAL USE DIRECTIONS. Greenhouse — Use 4 to 6 ozs./100 gals. water or 2 level tablespoons per 12 1/2 gals. water. Begin applications when first signs of powdery mildew or mites are observed and apply thorough coverage sprays at 7 to 10 day intervals. Outdoors — Use 6 to 8 ozs./100 gals. water or 2 level teaspoons per 3 gals. water. Begin applications when first signs of mildew or mites are observed and apply thorough coverage sprays at 5 to 7 day intervals or as necessary. Do not apply when greenhouse or outdoor temperatures are expected to reach or exceed 90°F. Do not use concentrate sprays in California.
Roses (greenhouse)		Apply in a light misting spray when signs of powdery mildew or mites are first observed and repeat at 5 to 7 day intervals or as long as necessary. The use of TRITON B-1956 will improve uniformity of spray deposits. Do not apply if temperatures are expected to reach or exceed 90°F.
Roses (out doors)		Use includes multiflora roses. Apply 6 to 8 ozs. per 100 gals. when first signs of powdery mildew or mites are observed and repeat at 7 to 10 day intervals. Use thorough full coverage sprays. The addition of TRITON B-1956 will improve uniformity of spray deposits.

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STORAGE AND DISPOSAL

STORAGE: Do not store at temperatures above 90°F for periods longer than 48 hours.

PESTICIDE DISPOSAL: Do not contaminate water, food or feed by storage or disposal. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinse 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

PAPER BAGS: Completely empty bag into application equipment. Then dispose of in a sanitary landfill or by incineration, or, if allowed by State and Local authorities, by burning. If burned stay out of smoke.

FIBER DRUMS: Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of drum and liner in a sanitary landfill, or by incineration if allowed by State and Local authorities.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Scoop or shovel solid material into a suitable container for recovery or disposal. Remove contaminated clothing promptly and wash exposed skin areas with soap and water. Wash clothing before re-use. Keep spill out of all sewers and open bodies of water. Refer to Precautionary Statements.

DIKAR, DITHANE, KARATHANE, TRITON and B-1956 are registered trademarks of the Rohm and Haas Company.

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