



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

IRC Manufacturing Company
c/o Carol Early
ISK Biocides, Inc.
416 E. Brooks Road
P.O. Box 9158
Memphis, TN 38109-0158

FEB 21 2001

Subject: Chlorpyrifos 44.9% EUP
Chapcide 4-EC
EPA Reg. No. 1022-543
Submission date: 8/30/00 & 12/28/00

Dear Ms. Early:

The label referred to above, submitted in connection with the registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable, provided you incorporate the Agency's conditions as enumerated in this letter below and submit one copy of your final printed label prior to releasing the product for shipment.

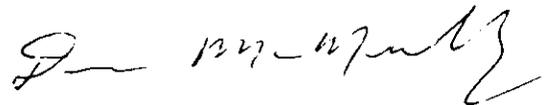
1) Under the header "General Information", the last two sentences of the first paragraph were inadvertently deleted by the registrant. The registrant was contacted and the Agency confirmed that these two sentences could be restored to the label. Therefore, if the registrant wishes to restore these two sentences (without modification) the Agency will concur.

2) The "Warranty and Limitation of Damages" text was changed without proper notification to the Agency. The warranty statement found on the last accepted label stamped by the Agency must be restored to this label. If the registrant wishes to change the warranty statement, it must be done as a separate amendment.

Submit one copy of the revised final printed label before releasing the product for shipment. If the conditions enumerated above are not complied with, the registration will be subject to cancellation in accordance with FIFRA Section 6(e).

If you have questions regarding this label review, please contact Marianne Lewis at (703) 308-8043 or electronically at Lewis.Marianne@EPA.gov.

Sincerely,



Dennis McNeilly, Chemist
Insecticide-Rodenticide Branch
Registration Division (7505C)

RESTRICTED USE PESTICIDE
For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification

Net Contents:

ACCEPTED
with COMMENTS
In EPA Letter Dated:
FEB 21 2001
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.
1022-543

CHAPCIDE 4-EC

INSECTICIDE WOOD TREATMENT CONCENTRATE

For control of wood-infesting insects
in lumber, logs, ~~and other wood products~~ fence posts, utility
poles, railroad ties, landscape timbers, pallets, wooden
containers, poles, posts, and processed wood products.

FOR INDUSTRIAL AND COMMERCIAL USE ONLY

Ingredient Statement

Active Ingredient(s):	
Chlorpyrifos [O,O-diethyl O-(3,5,6-trichloro-2-pyridinyl) phosphorothioate].....	44.9%
Inert Ingredients:	55.1%
Total:	100.0%

Contains Petroleum Distillates

Contains 4 pounds of chlorpyrifos per gallon.

EPA Reg. No. 1022-543

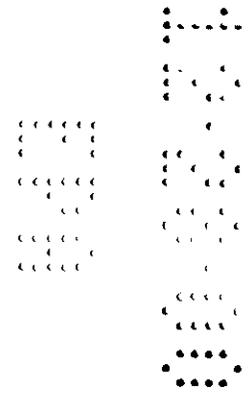
EPA Est. No. 1022-TN-1

KEEP OUT OF REACH OF CHILDREN

WARNING

See Precautionary Statements

Manufactured by:
IBC Manufacturing Company
416 East Brooks Road
P.O. Box 9158
Memphis, TN 38109-0158



PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING AVISO

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

MAY BE FATAL IF SWALLOWED • EXCESSIVE ABSORPTION THROUGH SKIN MAY BE FATAL • CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY • CAUSES SKIN IRRITATION

Do not get in eyes, on skin or clothing. Avoid breathing vapors and spray mist. Handle concentrate in a ventilated area. Wear protective clothing and chemically resistant gloves when handling. Wear eye protection. Wash thoroughly with soap and water after handling and before eating or smoking. Remove contaminated clothing and wash before reuse. Keep away from food, feedstuffs and water supplies.

STATEMENT OF PRACTICAL TREATMENT

If swallowed: Call a physician or Poison Control Center immediately. Do not induce vomiting. Contains an aromatic petroleum solvent. Do not give anything by mouth to an unconscious person.

If on skin: Immediately wash with plenty of soap and water. Get medical attention.

If in eyes: Flush with plenty of water for 15 minutes. Get medical attention.

If inhaled: Remove to fresh air if symptoms of cholinesterase inhibition appear and get medical attention immediately.

NOTE TO PHYSICIAN: Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may indicate significance of exposure (baseline data are useful). Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PAM/protopam, may be therapeutic if used early; however, use only in conjunction with atropine. In case of severe acute poisoning, use antidote immediately after establishing an open airway and respiration.

ENVIRONMENTAL HAZARDS

~~This pesticide is toxic to birds and wildlife, and extremely toxic to fish and aquatic organisms. Do not apply directly to water. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites. Cover or incorporate spills. Do not contaminate water by cleaning of equipment or disposal of waste.~~

This pesticide is extremely toxic to fish and wildlife. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NDPES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

PHYSICAL AND CHEMICAL HAZARDS

Combustible.

• Do Not Use or Store Near Heat or Open Flame. • Do Not Cut or Weld Container.

Notice: Read the Entire Label. Use only according to label directions. Before buying or using this product, read "Warranty Statement and Disclaimer" elsewhere on this label.

IN CASE OF AN EMERGENCY, endangering life or property involving this product, call 800/424-9300.

AGRICULTURAL CHEMICAL
Do Not Ship or Store with Food, Feeds, Drugs or Clothing.

DIRECTIONS FOR USE

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

Restricted Use Pesticide.

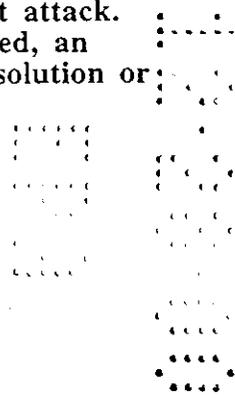
Read all directions for use carefully before applying.

Do not formulate this product into other end-use products.

GENERAL INFORMATION

Chapcide 4-EC insecticide is an emulsifiable concentrate that can be diluted with water or a suitable base oil (such as mineral spirits) to protect lumber, logs, pallets, poles, posts, wooden containers, and processed wood products (such as chips and composite materials) from insect attack. ~~Applications may be made by dipping, brushing, spraying, or by pressure treatment. For longer control use the higher use rates and/or apply by pressure treating.~~

Wood destroying insects are often very small. Therefore complete coverage of the wood product is essential for optimal control. Application by dipping, spraying, or brushing is a surface treatment. Milling or cutting surface treated wood may expose unprotected wood for insect attack. Where control of wood rotting or staining organisms is desired, an appropriate fungicide will need to be added to the treatment solution or applied separately.



Handling Procedures

Personal Protective Equipment (PPE):

~~Wear protective clothing including eye protection and chemically resistant gloves when using this product to reduce exposure to eyes and skin.~~

~~To avoid breathing spray mist during application in confined areas wear a mask or respirator of a type recommended by NIOSH for filtering spray mists.~~

Handlers and other Applicators must wear:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves, (such as barrier laminate, butyl rubber, nitrile rubber, viton)
- Chemical-resistant footwear plus socks
- Protective eyewear (goggles, face shield, or safety glasses with front, brow, and temple protection)
- Chemical resistant headgear for overhead exposure
- Chemical resistant apron required for mixing/loading and cleaning equipment
- Respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE prefilter.

Wood can be safely handled without the use of protective clothing when dry. Refer to respective safety information concerning handling precautions for cobioicides and/or solvents.

Mixing Directions

Dilute Chapcide 4-EC with water or suitable oil according to the tables below. Agitate during filling to ensure uniform mixing.

Dilution Charts

Gallons of Mixture Desired	Gallons of Chapcide 4-EC Needed for Water-Based Mix		
	0.5%	1.0%	2.0%
50	0.6	1.1	2.2
100	1.1	2.2	4.4
250	2.7	5.3	10.6
500	5.3	10.6	21.3
1000	10.6	21.3	42.6

CHAPCIDE 4-EC

Gallons of Mixture Desired	Gallons of Chapcide 4-EC Needed for Oil-Based Mix*		
	0.5 %	1.0 %	2.0 %
50	0.4	0.8	1.7
100	0.9	1.7	3.3
250	2.1	4.2	8.3
500	4.2	8.3	16.7
1000	8.4	16.7	33.2

*Assumes oil weighs 6.5 lbs/gallon

Tank Mixing

Unless prohibited by a product's label, users can tank mix pesticides currently labeled for similar use patterns. It is always recommended that a small jar compatibility test using proper proportions of chemicals and water be run to check for chemical compatibility prior to tank mixing.

DIRECTIONS FOR APPLICATION

To control wood infesting insects such as termites, carpenter ants, ambrosia beetles (*Scolytidae*), powder-post beetles (*Lycitidae*), false powder-post beetles (*Bostrichidae*), deathwatch beetles (*Anobiidae*), old-house borers (*Cerambycidae*), and others treat the wood with up to a 1% dilution of chlorpyrifos. Use up to a 2% dilution for certain utility pole and post treatments. Monitoring of the treating solution may be necessary to ensure that the desired level of chlorpyrifos is maintained, particularly where the treating solution may be used for an extended time period.

Dip, spray, and brush treatments are intended to kill localized infestations of workers and winged reproductive forms of termites and to prevent infestation for a temporary period. These applications are not intended as a substitute for soil or pressure treatments.

Dip Treatment

Beetles, wood-infesting ants, and termites may be controlled in freshly cut lumber, wooden containers, millwork, pallets, and processed wood products by dipping. Use rates up to 1%. Rates of 0.5% to 1% are recommended to ensure residual protection. The wood should be totally submerged in the dilution until thoroughly wet (minimum 3 minutes) and then allowed to dry in a suitable location. Dipping solutions should be monitored to ensure the desired level of chlorpyrifos is maintained. Dipping solutions should be agitated if left unused for a period of time (such as overnight). For optimal performance and economy, avoid heavy buildup of wood debris in dip tanks as chlorpyrifos may bind to the debris, and thus reduce the strength of the dilution.

Spray Treatment and Brush Treatment

Beetles, wood-infesting ants, and termites may be controlled in lumber, logs, wooden containers, millwork, poles, posts, and processed wood products by spraying or brushing. A 0.5% to 1% dilution is recommended for maximum efficacy. The wood should be sprayed or brushed thoroughly, including backs and ends, with the treatment mixture. Apply to surfaces, voids, and channels where insects may be located. When spraying, use a sprayer capable of delivering a coarse, low pressure (about 20 psi) spray. On logs, ensure thorough bark coverage as untreated areas are subject to insect attack. When treating processed wood products, Chapcide 4-EC may be sprayed onto wood chips (wood particles) or mixed with compatible adhesive. The Chapcide 4-EC and adhesive mixture may be applied by methods suitable for application of the adhesive (such as spraying, rollers, or blending). Test compatibility and application method on a small scale prior to full scale production.

Pressure Treatment

For long-term control of beetles, wood-infesting ants and termites in lumber, wooden containers, millwork, pallets, processed wood products, utility poles and fence posts apply by pressure treatment. Combine with an appropriate fungicide for control of wood-decay organisms. Chapcide 4-EC may be applied in either oil-borne or water-borne systems. Treat to attain a minimum retention of 0.0175 pcf (pounds per cubic foot) in the appropriate assay zone. Depending upon the treatment process this usually requires a 0.25% to 1% dilution. Use lower concentrations for full-cell treatments and higher concentrations for empty-cell treatment.

In-Place Treatment of Utility Poles and Fence Posts in Rights-of-Way

Preventative Treatment: For the preventative control of termites when placing a pole or post in service, use a 1% to 2% dilution. After pole or post hole has been dug, mix the dilution with the soil as it is being replaced to a depth of approximately 10 inches. Place pole or post on top of this layer. Mix the remaining soil fill with treatment solution while back-filling the hole. The treated soil zone around the post or pole should be approximately 6 inches wide. Soil for the base layer back-fill of each pole or post should be treated at a rate of 4 gallons of dilution per 10 cubic feet of soil.

Remedial Treatment: To control existing infestations of termites or to prevent infestation of poles and posts already in place, use a 1% to 2% dilution. The solution should be injected into termite galleries or channels in the wood. For maximum protection, injection sites should be at or below ground level.

Poles and post may also be treated by rodding down to the base. Rod holes should be placed approximately 3 inches away from the pole and about 6 inches apart. Inject approximately 12 fluid ounces of dilution per foot of depth into each rod hole.

It may be appropriate to use one or both treatment techniques depending upon the specific circumstances at the work site (such as soil type), Retreatment may be made any time there is evidence of reinfestation, disruption, or loss of the barrier due to construction, excavation, landscaping, etc. Annual retreatment is prohibited unless reinfestation or barrier disruption has occurred.

STORAGE AND DISPOSAL

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

STORAGE: Store in original container in secured dry storage area. Prevent cross-contamination with other pesticides and fertilizers. Do not store above 100°F for extended periods of time. Storage below 20°F may result in formation of crystals. If product crystallizes, store at 50 to 70°F and agitate to redissolve crystals. If container is damaged or spill occurs, use product immediately or dispose of product and damaged container as indicated below.

PESTICIDE 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.

METAL CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

PLASTIC CONTAINER DISPOSAL: Triple rinse (or equivalent). Then puncture and 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.

WARRANTY AND LIMITATION OF DAMAGES

Seller warrants to those persons lawfully acquiring title to this product that at the time of the first sale of this product by seller that this product conformed to its chemical description and was reasonably fit for the purposes stated on the label when used in accordance with Seller's directions under normal conditions of use and Buyers and users of this product assume the risk of any use contrary to such directions. SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY, AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO. In no event shall Seller's liability for any breach of warranty exceed the purchase price of the material as to which a claim is made.

Buyers and users of this product are responsible for all loss or damage from use or handling of this product which results from conditions beyond the control of Seller, including, but not limited to, incompatibility with other products unless otherwise expressly provided in the Directions for Use of this product, weather conditions, moisture conditions or other environmental conditions outside the ranges that are generally recognized as being conducive to good industrial and/or application practices.