

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

PM 17
35977 101.8

OCT 26 1989

Mr. Gerald E. Posebery
MMA, Agrochemicals
Research and Development
MFA Sciences, Inc.
5000 Fifth Avenue
P.O. Box 10
Vero Beach, FL 32961-3023

Dear Mr. Posebery:

Subject: Torus 2E Insect Growth Regulator
EPA Registration No. 35977-26
Your Letter Dated September 13, 1989

The eye irritation study submitted with your letter dated September 13, 1989 is acceptable. Based on the results of this study, the following changes must be made on the label.

1. Add the following statement to the Statement of Practical Treatment:

If On Skin: Wash with plenty of soap and water.
Get medical attention.

If Inhaled: Remove victim to fresh air. Get medical attention.

2. The signal word "Danger" and the precautionary labeling which appear on the label are appropriate.

The following changes must also be made on the label:

1. The statement "Keep Out of Reach of Children" must appear above the signal word "Danger" on the front panel.

55850: I: Tavano: H-9: KENCO: 10/05/89: 10/18/89: CL: VO: EK: aw


CONCURRENCES

SYMBOL	H7507E						
SURNAME	Tavano						
DATE	10/1/89						

2018

2. Change the statement "Do not contaminate water by cleaning of equipment or disposal of wastes" to read "Do not contaminate water when disposing of equipment washwaters."

Sincerely yours,



Phil Hutton
Product Manager (17)
Insecticide-Rodenticide Branch
Registration Division (H7505C)

3048

ACCEPTED
with COMMENTS
in EPA Letter Dated:

OCT 26 1989

Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended, for the pesticide
registered under EPA Reg. No. 35977-24

TORUS 2E

PROPOSED LABEL
FRONT PANEL

Page 1 of 6

TORUS 2E

INSECT GROWTH REGULATOR
FOR EXTENDED CONTROL OF FLEAS AND COCKROACHES

35977-24

ACTIVE INGREDIENT:	fenoxy carb (ethyl(2-[4-phenoxyphenoxy)ethyl]carbamate).....	24.6%
INERT INGREDIENTS:	75.4%
		TOTAL: 100.0%

Contains 2 lbs. active ingredient per gallon (240 g/l)
Contains petroleum solvents

DANGER

KEEP OUT OF REACH OF CHILDREN

SEE BACK PANEL FOR STATEMENT OF PRACTICAL TREATMENT AND

ADDITIONAL PRECAUTIONARY STATEMENTS

REFER TO ACCOMPANYING BROCHURE FOR DIRECTIONS FOR USE

EPA REG NO: 35977-

EPA ESTABLISHMENT NO: 35977-SW-1

PRECAUTIONARY STATEMENTS

DANGER

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Concentrate causes irreversible eye damage. Do not get in eyes or on clothing. Wear goggles, face shield or safety glasses when handling concentrate. Harmful if inhaled or absorbed through skin. Avoid contact with skin. Avoid breathing spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

STATEMENT OF PRACTICAL TREATMENT

If swallowed: Contains petroleum solvents. Do not induce vomiting. Call local Poison Control Center for advice. Get medical attention.

If in eyes: Flush eyes immediately with plenty of water and continue for at least 15 minutes. Get medical attention.

PHYSICAL/CHEMICAL HAZARDS

To avoid electrical shock or short circuits, do not spray in areas such as conduits, motor housings, junction and switch boxes.

Flammable - Do not handle or store near heat sources or open flame. Do not handle in the vicinity of pilot lights.

Do not use in edible product areas of food processing plants, restaurants or other areas where food is commercially prepared or processed. Do not use in serving areas while food is exposed. Avoid contamination of food, feedstuffs or water supply.

TORUS 2E

PROPOSED LABEL
BROCHURE

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TORUS 2E

INSECT GROWTH REGULATOR
FOR EXTENDED CONTROL OF FLEAS AND COCKROACHES
EPA REG NO: 35977-

DANGER
KEEP OUT OF REACH OF CHILDREN

DIRECTIONS FOR USE

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

STORAGE AND DISPOSAL

Pesticide Storage: Store in a locked storage area away from children. Soak up spills with absorbent material and dispose of absorbent in accordance with pesticide disposal instructions.

Pesticide Disposal: Do not contaminate water, food or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Triple rinse container. Then puncture and dispose of in a sanitary landfill, by incineration or, if allowed by local authorities, by burning. If burned, stay out of smoke.

FOR EXTENDED CONTROL OF FLEAS

TORUS 2E is an insect growth regulator (IGR) that is very effective for the control of immature life stages of fleas. TORUS 2E kills eggs and controls larvae by contact or ingestion. Treated larvae fail to emerge as adult fleas. TORUS 2E has excellent residual effect, lasting six months or more, depending on the type of material treated, frequency of cleaning and indoor environmental conditions.

TORUS 2E will not kill adult fleas. To provide adequate knockdown of adults present at the time of application, TORUS 2E must be combined with an insecticide registered for adult flea control. TORUS 2E complements the rapid activity of the insecticide by providing long term flea control.

DIRECTIONS FOR USE FOR FLEA CONTROL

TO MIX:

Prepare a dilute spray mixture that contains 0.33 fl. oz. (2 tsps or 10 ml) of TORUS 2E in one gallon of water. Partially fill the sprayer or mix tank with water, add the correct amount of TORUS 2E and agitate. Then add the labeled rate of the insecticide selected and fill with water to the final volume. Agitate before each spray. Do not allow spray mixture to stand overnight.

Note: If there is any question about the compatibility of TORUS 2E with the insecticide, do a jar test to make sure the mixture is physically compatible.

APPLICATION PROCEDURE:

Apply at the rate of one gallon of finished spray on approximately 1500 sq. ft. of surface area. Apply with a low pressure sprayer suitable for indoor applications. Treat all areas that may harbor fleas, including but not limited to carpets, furniture, pet sleeping areas and throw rugs. Treat under cushions of upholstered furniture. Avoid contact with treated areas until spray has dried. Remove pets prior to treatment and cover aquariums.

FOR EXTENDED CONTROL OF COCKROACHES

TORUS 2E is intended for extended control of cockroaches in homes, apartments and non-food areas of industrial, institutional and commercial buildings including but not limited to: hospitals, stores, manufacturing plants, warehouses, transportation equipment and ships. **DO NOT USE IN FOOD PREPARATION AREAS OF COMMERCIAL ESTABLISHMENTS.**

TORUS 2E has been shown to control the following cockroach species:

<u>Common Name</u>	<u>Latin Name</u>
AMERICAN	<u>Periplaneta americana</u>
ASIAN	<u>Blattella asahinai</u>
AUSTRALIAN	<u>P. australasiae</u>
BROWN	<u>P. brunnea</u>
BROWNBANDED	<u>Supella longipalpa</u>
GERMAN	<u>Blattella germanica</u>
ORIENTAL	<u>Blatta orientalis</u>
SMOKEYBROWN	<u>P. fuliginosa</u>

TORUS 2E acts on the immature growth stages of cockroaches by contact or ingestion. TORUS 2E kills young instar nymphs by disrupting molting. And prevents the development of the last stage nymphs into fertile adults. It has excellent residual effect.

TORUS 2E will not kill adult cockroaches. TORUS 2E must be combined with an insecticide registered for cockroach control to provide adequate knockdown of adults present at the time of application. TORUS 2E complements the rapid activity of the insecticide, providing long term cockroach control.

DIRECTIONS FOR USE FOR COCKROACH CONTROL

TO MIX:

1. Cleanout - Prepare a dilute spray mixture that contains .67 fl oz (20 ml) to 1.0 fl oz (30 ml) of TORUS 2E in 1 gallon of water. Use the 1.0 fl oz (30 ml) rate where known high infestations occur.
2. Maintenance - Prepare a dilute spray mixture that contains 0.67 fl.oz. or 20 ml of TORUS 2E in 1 gallon of water.

Partially fill the container with water. Add the TORUS 2E, agitate, add the insecticide, agitate, and fill to final volume.

NOTE: If the insecticide selected is a wettable powder, add the WP first then add the TORUS 2E. If there is any question about compatibility, always do a

APPLICATION PROCEDURE:

Apply as a crack and crevice spray and as a spot treatment with a low pressure sprayer equipped with a multitip nozzle suitable for indoor application. Apply to all areas that harbor cockroaches. These include behind cupboards, pantries, under shelves and drawers, behind and under stoves, refrigerators and other large appliances, under sinks, baseboards, window frames, plumbing and other utility installations.

The initial effects of TORUS 2E can be observed in 2 weeks. Control continues to improve over time. In order to obtain the optimum effects of TORUS 2E the TORUS 2E COCKROACH PROGRAM outlined below should be followed.

TORUS 2E COCKROACH PROGRAM:

1. The initial application: This application is the cleanout application. Follow the spray preparation as described above and have all cabinets and drawers emptied prior to the application.
2. The second application: The second application is made 6-8 weeks after the initial application, depending on the residual insecticide used. This is a maintenance application. Follow the spray preparation as noted above.
3. Subsequent applications: Maintenance applications are then made every 3-4 months.

APPLICATION PRECAUTIONS:

Do not allow spray mist to contact food, feed stuffs or water supplies. Dishes and food handling utensils should be thoroughly washed in soap and water if exposed to contamination by the application of the product. Do not allow children or pets to contact treated surfaces until spray has dried.