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TYPE PRODUCT(S) : I, D, H, F, N, R, S Synthetic Pyrethroids

DATA ACCESSION NO(S).

PRODUCT MANAGER NO. G. La Rocca (15)

PRODUCT NAME(S) PP321 1E

COMPANY NAME ICI Americas, INc

SUBMISSION PURPOSE Proposed Registration of a variety of domestic and commercial uses in/around Buildings and other strucutres(e.g.rail cars, aircraft)

SHAUGHNESSEY NO.	CHEMICAL, & FORMULATION	% A.I.
	Karate or PP321 (1E)	

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Registration for Karate for Domestic Uses In /Around Buildings and Other Structures

FROM: Candy Brassard
Ecological Effects Branch
Hazard Evaluation Divsion (TS-769-C)

Candy Brassard 11/3/87

THRU: Douglas J. Urban
Head-Section III
Ecological Effects Branch
Hazard Evaluation Division (TS-769-C)

Douglas J. Urban 11/3/87

THRU: Henry T. Craven
Acting Chief
Ecological Effects Branch
Hazard Evaluation Division (TS-769-C)

Henry T. Craven 11/10/87

TO: George La Rocca,
Product Manager, Team 15
Insecticide and Rodenticide Branch
Registration Division (TS-767)

The Ecological Effects Branch (EEB) has completed the review of Karate (PP321), a synthetic pyrethroid for domestic uses, and in/around buildings and other structures, i.e. train cars, aircrafts.

Toxicity Data

The limited toxicity data on Karate indicates this contact insecticide is practically non-toxic to waterfowl on an acute oral basis (mallard LD_{50}>3950 mg/kg). This chemical is practically non-toxic to upland game and slightly toxic to waterfowl on a subacute dietary basis (Bobwhite LC_{50}>5300 ppm, mallard LD_{50}=3948 ppm).

Karate is moderately toxic to mammals on an acute oral basis (Rat LD_{50}=56 mg/kg). This chemical is highly toxic to honey bees.

PP321 is very highly toxic to both warmwater and cold-water fish with LC_{50} values ranging from 0.21 to 0.24 ug/l. This insecticde is also very highly toxic to freshwater invertebrates (LC_{50}= 0.36ug/l). The available estuarine data indicates Karate is very highly toxic to the sheepshead minnow (LC_{50}=0.8 ug/l).

Proposed Labeling

EEB is recommending that portions of the label be changed to specify the use patterns in order to estimate the potential hazard. Only if these changes are incorporated can EEB complete a risk assessment, and determine that the uses in the new label are not a potential hazard to aquatic organisms.

The labeling sections that are of concern are as follows:

" For residual pest control in and on buildings and structures and their immediate surroundings and on modes of transport. For control of certain pests on greenhouse-grown ornamental trees and shrubs. Permitted areas include, but are not limited to, stores, warehouses, industrial buildings, houses, apartment buildings, greenhouses, laboratories, and on vessels, rail cars, buses, trucks, trialers and aircraft. Also may be used in nonfood areas of schools, nursing homes, hospitals, restaurants, hotels and food manufacturing, processing and servicing establishments."

The phrase " Permitted areas of use include, but are not limited to... " should be rephrased to read as follows: "Permitted areas of use include, stores, warehouses." All the uses should be specified in order for a hazard assessment to be conducted.

The statement "For control of certain pests on greenhouse-grown ornamental trees and shrubs" is not specific. This statement would lead the user to believe that the insecticide could be used on any greenhouse grown-ornamental trees and shrubs, even in outside locations, such as nursery areas. This statement should be rephrased to read "For control of certain pests on ornamental trees and shrubs in greenhouses".

The next statement in the submitted label that is of concern is as follows:

"OUTDOOR USE: For control of ants, bees, centipedes, cluster flies, cockroaches, crickets, firebrats, flies, millipedes, male crickets, pillbugs, silverfish, sawbugs, spiders and wasps. Apply as a residual spray by either hand or power sprayer to surfaces of buildings, porches, screens, window frames, eaves, patios, lawns, refuse dumps, garages, and in other areas where those pests are found."

Since neither the application rate nor the recommended interval were included in the label, EEB can not complete a risk assessment for the use on "lawns". Since the term "lawns" implies that this insecticide can be used in any size lawn there is potential for wide exposure (runoff). In addition, the statement "... and other areas where those pests are found." should be deleted, as it is impossible to estimate the hazard for areas unknown.

The Statement for OUTDOOR USES should read as follows:

"OUTDOOR USES: For control of ants, bees, centipedes, cluster flies, cockroaches, crickets, firebrats, flies, millipedes, male crickets, pillbugs, silverfish, sawbugs, spiders and wasps. Apply as a residual spray by either hand or power sprayer to surfaces of buildings, porches, screens, window frames, eaves, patios, refuse dumps, and garages."

Conlusions

EEB has completed the risk assessment of the proposed registration of Karate for the following uses: stores, warehouses, industrial buildings, houses, apartment buildings, greenhouses, laboratories, and on vessels, rail cars, buses, trucks, trailers, and aircraft. Also may be used in nonfood areas of schools, nursing homes, hospitals, restaurants, hotels and food manufacturing, processing and servicing establishments. The outdoor uses include: surfaces of buildings, porches, screens, window frames, eaves, patios, refuse dumps, and garages.

Based on the available data and use information, EEB concludes that the proposed uses provide minimal hazards to nontarget organisms as long as the above labeling changes are required.