



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

AUG 12 1983

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Reg. No. 602-GNU. Chlorpyrifos on beef cattle,
hogs, goats, horses and sheep.

FROM: Linda S. Propst, Chemist
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

Linda S. Propst
7/25/83

THRU: Charles L. Trichilo, Chief
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

TO: Jay Ellenberger, Product Manager No. 12
Insecticide-Rodenticide Branch
Registration Division (TS-767)

Ralston Purina Company is requesting registration of the chlorpyrifos formulation Purina® Defender to allow for dermal application to hogs, beef cattle, sheep, horses, and non-lactating goats.

Tolerances have been established for combined residues of the pesticide chlorpyrifos (O,O-diethyl O-(3,5,6-trichloro-2-pyridyl) phosphorothioate and its metabolite 3,5,6-trichloro-2-pyridinol resulting from dermal and feed uses in the meat, fat, and meat by-products of cattle at 1.5 ppm, and 0.2 ppm in the meat, fat, and meat by-products of turkeys which might occur from the treatment of pens. Tolerances of 0.1 ppm have been established in the meat, fat, and meat by-products of goats, hogs, horses, and sheep to cover residues of chlorpyrifos resulting from the ingestion of agricultural commodities bearing residues of chlorpyrifos (40 CFR 180.342).

The currently registered label for chlorpyrifos allows for one dermal treatment on sheep using 0.002 lb. a.i./100 lb. body weight, not to exceed 0.016 lb. active/animal regardless of weight. Lambs weighing less than 50 lbs. are not to be treated. Sheep are not to be slaughtered within 35 days of treatment.

Cattle are currently registered to be treated topically with a 0.025% spray or dip, or application of a 0.125% solution of chlorpyrifos may be applied in the ear of the animal. A 14-day withdrawal period is specified for the spray or dip uses, and zero day for the ear treatment.

Purina® Defender, a liquid containing 25% chlorpyrifos is to be diluted and used as an animal spray, kennel spray, concentrated spot application, or dip to aid in the control of mange, ticks, flies, lice, spiders, wood beetles, wasps, roaches, chiggers, ants, fleas, mosquitoes, and sheep ked.

The proposed label does not indicate the actual amount of chlorpyrifos per gallon of solution. Neither the number of treatments nor the interval between treatment and slaughtering is specified.

There has been no submission of residue data with this request. In a letter to Jay Ellenberger, PM #12, the registrant informed us that Dow Chemical is the basic manufacturer of chlorpyrifos and has given authorization to the registrant, Ralston Purina, to refer to these data to support this registration.

Before we can continue to evaluate this request we will need to know the amount of chlorpyrifos active per fluid oz. of this formulation. Once this information is given we can then determine whether the residue data available in our files reflect the maximum dosage for all proposed uses and are sufficient to allow us to make a conclusion as to the adequacy of the established tolerances.

We are unable to conclude that the established tolerances will be adequate to cover all residues of chlorpyrifos and its metabolite (TCP) in the meat, fat, and meat by-products of cattle, goats, hogs, horses, and sheep which occur as a result of this registration.

Conclusions and Recommendations

We are unable to conclude that the tolerances established to cover residues of chlorpyrifos and its metabolite (TCP) in the meat, fat, and meat by-products of cattle, goats, hogs, horses, and sheep which may occur as a result of this registration will not be exceeded.

Therefore, we recommend against this registration.

The registrant should be informed that before we can evaluate this request we need to know the weight of chlorpyrifos active per unit volume of this formulation (for example lbs. active/gallon), the number of treatments recommended, and the preslaughter interval.

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The registrant should be further informed that we will require residue data reflecting the maximum dosage levels for all proposed uses. Whether such data is available in our files will be determined after we receive the information requested above.

TS-769:RCB:L.Propst:mch:CM#2:RM810:X77324:7/25/83
cc: R.F., Circu., L. Propst, Chlorpyrifos S.F.
RDI: R. Hummel, 7/21/83; R. Schmitt 7/22/83

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