UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: January 4, 1979

SUBJECT: Proposed tolerance for the Pesticide Chemical Carbaryl in or on Pistachios.
Petition#9E2153 Caswell#160

FROM: C. Frick C. Frick WSW
Toxicology Branch/HED

TO: Mr. C. Fletcher
Minor Uses S/R

Action Request: The petitioner, IR-4, National Director Dr. R.H. Kupelian, on behalf of the IR-4 Technical Committee and the Agricultural Experiment Station of California requests the establishment of a tolerance for the residues of the insecticide carbaryl, including its hydrolysis product 1-naphthol, in or on the raw agricultural commodity pistachios at 1 ppm resulting from the applications of the insecticide to the growing raw agricultural commodity, as proposed in Section B. This tolerance is in accord with that established in CFR 180.169 for almonds, filberts, pecans, and walnuts.

Section B - The amount, frequency, and time of application.

Pistachios: For control of navel orangewarm, Paramyelois transitella - Apply 2/3 to 1½ lb. (0.5 to 1 lb. active) per 100 gal. water in 300 gal. mixed spray per acre. Apply full coverage spray once at the onset of hull (pericarp) split.

Recommendation: See comments at end of review.

Note: Carbaryl is under rebuttable presumption.

Triggers: Teratogenicity in dogs
Reproduction in non-target species (bees)

This status is as of June 23, 1978. The PD#1 is presently being drafted.

Review:

No toxicology data is contained in the petition, Union Carbide data is referenced (Letter signed by J.S. Lovell authoring use of such data accompanied petition). Below follows a summary of TOX considerations extracted from a review of Petition#3E2035 by Dr. Reto Engler - dated July 5, 1978.

Data base for tolerances:

Oral LD_{50} Rat	510 mg/kg
Rat Teratology	No teratologic effects at highest level tested (375 mg/kg)
Monkey Teratology	No effects at highest level tested (20 mg/kg)
Dog Teratology	No effects at 3 mg/kg, terata at higher levels tested (6.5 mg/kg)
Three-Generation Reproduction Study	NOEL 200 mg/kg/day (highest level tested)
Dominant Lethal Assay (Rat)	NOEL 200 mg/kg/day (highest level tested)
One-year Dog Feeding Study	NOEL 400 PPM
2-Year Rat Feeding Study	NOEL 200 PPM, slight systemic effects at 400 PPM
18-Month Mouse Oncogenicity Study	Negative at 400 PPM (highest level tested)
18-Month Mouse Oncogenicity Study	Negative at 14 PPM (Bionetic Study)

Comments:

Even though an RPAR process is initated on Carbaryl this tolerance should be given consideration in view of the risk increment for the general public which, in this case, considering the other registered uses of carbaryl formulations, will be miniscule.

TOX/HED:th:WWoodrow:1-4-79

WWS 2/5/79