

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

10-12-77

DATE: ~~October 6, 1977~~

SUBJECT: Chlorothalonil - re-evaluation of minor use tolerances, Listing of items for CFR publication

FROM: Robert Coberly - Toxicology Branch

Robert Coberly 10/12/77

TO: Mr. Charles L. Smith
Special Registration Branch

Thru: Dr. O. E. Paynter, Chief Toxicology Branch

E. O. E. Paynter 10/12/77

Pesticide Petition No. 6E1841

1) The toxicity data considered are as follows:

acute rat oral LD ₅₀ (PP #1F1024)	> 10,000 mg/kg
acute dog oral LD ₅₀ (PP #1F1024)	> 5,000 mg/kg
acute rabbit dermal LD ₅₀ (PP #1F1024)	> 10,000 mg/kg
rabbit eye irritation (PP #1F1024)	Transient irritation
acute rabbit inhalation LD ₅₀ (PP #1F1024)	> 4.7 mg/L
rabbit teratogenic (PP #9F0743)	negative at 62.5 mg/kg (highest fed level)
16 week Dog Feeding	NEL < 250 ppm
4 month Rat Feeding (#200-198)	NEL < 250 ppm
2 Year Dog Feeding	NEL < 0.15%
2 Year Dog Feeding (#200-206)	NEL 60 ppm
2 Year Rat Feeding (#200-154)	NEL < 0.5%
18 Month Rat Feeding (#200-175)	NEL < 0.05%
2 Year Rat Feeding (#200-205)	NEL 60 ppm
3 Generation Rat Reproduction (#200-155)	NEL < 0.5%
3 Generation Rat Reproduction (#200-150)	NEL 15,000 ppm (reproduction)
	NEL 1,500 ppm (lactation)

Metabolite Data (DAC - 3701-14-hydroxy-2,5,6-trichloroisophthalonitrile)

Acute Rat Oral LD ₅₀ (S-D Rats)	female 242 mg/kg
Acute Dog Oral LD ₅₀ PP #2F1230 (293-021)	male 422 mg/kg
Acute Rat Oral LD ₅₀ PP #2F1230 (293-004)	100 mg/kg
14 month Rat Feeding PP #2F1230 (#24-051)	332 mg/kg
90 Day Dog Feeding PP #2F1230 (#24-052)	NEL 100 ppm
3 Generation Rat Reproduction PP#2F1230	NEL < 50 ppm
	NEL Not established

Host-Mediated Assay PP #6F1799 (99% pure): negative

In Vivo Cytogenetic In Mice PP #6F1799 (99% pure): Negative
MICE Dominant Lethal Test PP #6F1799 (99% pure). A significant increase in early deaths at week 3 of mating (spermatid stage) was noted at 6.5 mg/kg/day.

Mice Dominant Lethal Test PP #6F1799 (99% pure) : incomplete data provided.

Rat Dominant Lethal Test PP # 6F1799: negative at 8 mg/kg (5 daily oral doses) and at a single dose of 8 mg/kg (99% pure) (Lab #24-101).

Rabbit Teratology (Lab #293-032a) (PP #6F1799): negative at 5.0 mg/kg/day

73 Week Rat Feeding (Lab #8180-70) (PP #6F1799) (99% pure): NEL \geq 200 ppm study does not satisfy the oncogenic protocol due to length of study.

Three Generation Rat Reproduction (PP #6F1799) (99% pure): study is considered invalid due to numerous conflicting data, poor reporting, missing data and etc. Dr. Budny of Diamond Shamrock Chemical Co. agreed to this classification.

2. A second oncogenic study has not been provided.
3. Toxicology has recommend against establishing any of the pending tolerances (see memo of 1/27/77 from R. Coberly to Patricia Critchlow).
4. Existing Tolerances: § 180.275
15 ppm in or on celery
5. ppm in or on broccoli, brussels sprouts, cabbage, cauliflower, cucumbers, melons, onions (green), pumpkins, snap beans, squash (summer and winter) and tomatoes.
3.0 ppm in or on passion fruit
1.0 ppm in or on carrots and sweet corn (kernels plus cob with husks removed).
0.5 ppm in or in onions (dry bulb).
0.3 ppm in or on peanuts
0.1 ppm in or on potatoes
5. The presently existing tolerances will contribute residues to the diet equal to the allowable daily intake (ADI). The requested tolerances in turnip greens, chicory, and mustard greens will not contribute a significant amount (approx. 0.016 mg/day) to the daily diet. The tolerance request in escarole will add 0.1mg/day of the chemical to the diet.

If these tolerances are granted the ADI will be exceeded by 11%.

6. It was revealed during the Jan. 12, 1977 R. Coberly review of Pesticide Petition No. 6F1799 that the previously listed ¹of 120 ppm in the dog had

NEL

been downgraded by Dr. E. Long to 60 ppm due to questionable effects at 120 ppm. Accordingly, the ADI was lowered from 0.03 mg/kg body weight to 0.015 mg/kg body weight and the MPI to 0.9 mg/day/60 kg man. A safety factor of 100 was used.

7. A data gap exist which consist of a second oncogenic study.
 8. The requested tolerances currently in house ie: PP #7E1887 should be considered in the overall tolerance action.
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