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

Larvin 4/12/83
Appendix #5
OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

"final action"
on the
request of
the
Kudrinski
MEMORANDUM

TO: Jay Ellenberger (12)
Registration Division (TS-767)
and
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

SUBJECT: Larvin; EPA Reg. #264-GUE, 264-GUR; PP#0F2413, OH5275;
Larvin in/on Cotton and Soybeans; Recalculation of
the ADI CASWELL#900AA

Recommendation:

The recalculation ADI is 0.03 mg/kg/day.

Review:

1) Toxicity Data considered in Setting the ADI

- °Rat Oral LD₅₀ = 325 mg/kg *rechecked*
- °Rat Teratology: Negative at 30 mg/kg/day; fetotoxic NOEL
= 3.0 mg/kg/day
- °Mouse Teratology: Negative at 200 mg/kg/day; fetotoxic NOEL
= 200 mg/kg/day
- °Acute Delayed Neurotoxicity: Negative at 660 mg/kg
- °Rat Dominant Lethal: Negative at 10 mg/kg/day
- °Ames Salmonella/Microsome Plate Test: Negative
- °Micronucleus Test: Negative
- °Reverse Mutation in Saccharomyces cerevisiae: Negative
- °Mitotic Crossing Over in Saccharomyces cerevisiae: Negative
- °Mitotic Gene Conversion in Escherichia coli: Positive

°Primary DNA Damage in Escherichia coli: Negative

°3-Generation Rat Reproduction: NOEL = 10 mg/kg/day (HDT)

°Mouse Oncogenicity: oncogenic potential: negative at
10 mg/kg/day (HDT)

°Six-Month Dog Feeding: ChE NOEL = 15 mg/kg/day; Subchronic
toxicity NOEL = 15 mg/kg/day

°2-Year Chronic/Oncogenic Rat Feeding Study: ChE NOEL =
10 mg/kg/day;
chronic toxicity
NOEL = 3.0 mg/kg/
day; oncogenic
potential: negative
at 10 mg/kg/day (HDT)

2) Calculation of the ADI

The ADI is based on the NOEL of 3.0 mg/kg/day in the 2-year rat feeding studing. This is the most sensitive species for which chronic toxicity data are available. A 100 fold safety factor was used to calculate the ADI.

$$ADI = 3.0 \text{ mg/kg/day} \times \frac{1}{100}$$

$$ADI = 0.03 \text{ mg/kg/day}$$

The MPI for a 60 kg person is 1.8 mg/day.

3) Permanent tolerances utilize 0.13% of the ADI.

William Dykstra, Ph.D
Toxicology Branch
Hazard Evaluation Division (TS-769)

12/21/82
LOC
5/12/83
W.D.

Attachment

File last updated 4/30/82

ACCEPTABLE DAILY INTAKE DATA

RAI, Older NOEL	S.F.	ADI	MPI
mg/kg	ppm	mg/kg/day	mg/day (60kg)
3.000	60.00	100	0.0300
			1.8000

Unpublished, tox Approved 2G2581

CROP	Tolerance	Food Factor	mg/day (1.5kg)
Cottonseed (oil) (41)	0.000	0.15	0.00000
Soybeans (oil) (148)	0.000	0.92	0.00000

MPI	THRC	% ADI
1.8000 mg/day (60kg)	0.0000 mg/day (1.5kg)	0.00

Current Action P- UF2413

CROP	Tolerance	Food Factor	mg/day (1.5kg)
Cottonseed (oil) (41)	0.400	0.15	0.00090
Soybeans (oil) (148)	0.100	0.92	0.00138

MPI	THRC	% ADI
1.8000 mg/day (60kg)	0.0023 mg/day (1.5kg)	0.13

Appendix 6

File last updated 2/17/83

ACCEPTABLE DAILY INTAKE DATA

RAT, Older	NOEL	S.F.	ADI	MPI
mg/kg	ppm		mg/kg/day	mg/day (60kg)
3.000	0.00	100	0.0300	1.8000

Unpublished, Tox Approved 2G2531, 0F2413

CROP	Tolerance	Food Factor	mg/day (1.5kg)
Cottonseed (oil) (41)	0.000	0.15	0.00000
Soybeans (oil) (148)	0.000	0.92	0.00000
Cottonseed (oil) (41)	0.400	0.15	0.00090
Soybeans (oil) (148)	0.100	0.92	0.00138

MPI	TMRC	% ADI
1.8000 mg/day (60kg)	0.0023 mg/day (1.5kg)	0.13

Current Action 3G2782

CROP	Tolerance	Food Factor	mg/day (1.5kg)
Corn, grain (68)	0.050	1.00	0.00075
Corn, sweet (40)	1.500	1.43	0.03218

MPI	TMRC	% ADI
1.8000 mg/day (60kg)	0.0352 mg/day (1.5kg)	1.96

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