IRB/TSS SAFETY REVIEW

5-15-84

TO: PM-15

SUBJECT: 000499-EEI
Whitmire PT 261 KNOX OUT
Whitmire Research Labs, Inc.
St. Louis, MO 63122

In TSS: 04-12-84
Due: 06-07-84
RN: 119794
ACCN: 252747

FORMULATION: Microencapsulated pressurized liquid.

| | |
|---|---|
| Active Ingredients | |
| Diazinon | 1.0% |
| Inert Ingredients | 99.0% |

BACKGROUND: This is an application for the registration of a new formulation of a previously registered active ingredient. Product is proposed for use to control cockroach, crickets, silverfish, ants, and carpenter ants in service establishments, meat packing and food storage areas, and food handling establishments. It is also proposed for outdoor use on localized infestations of brushy non-crop areas. Application in food areas is to be limited to cracks and crevices only.

SUBMITTED DATA:

ACCN. 252747
Scientific Associated Inc.
St. Louis, MO 63123
Date received at EPA: 03-06-84
Tests were performed using the aerosol concentrate minus the propellant.

1. Acute Oral LD 50, S.A. # 353520: 5M and 5F cox SD rats, individually housed, were dosed orally by intubation with subsequent 14-day observation period. All animals showed hypoactivity, salivation, diarrhea, diuresis lacrimation, epilorection, tremors, and loss of weight. Necropsied animals showed congestion of the adrenals, kidneys, liver and lungs.

| DOSE | % MORTALITY | |
|---|---|---|
| g/kg | MALES | FEMALES |
| 12.62 | nt | 0 |
| 15.89 | 0 | 40 |
| 17.89 | 20 | 40 |
| 20.00 | 40 | 100 |
| 25.18 | 80 | nt |
| 31.70 | 100 | 100 |

| | | |
|---|---|---|
| A.O. LD50 | 21.75 gm/kg | 17.75 gm/kg |
| 95% confidence limits | (18.53-25.53) | (15.78-19.97) |

Core minimum data.
Toxicity Category IV.

2. Acute Dermal Toxicity S.A. #357430: A group of 5M and 5F NZ white rabbits, individually housed, received a 24 hour occluded dermal exposure to 2 g/kg with a subsequent 14-day observation. Test sites were clipped but unabraded, and were washed after 24 hours. No deaths occured. All animals showed erythema, 1/10 showed slight edema and 2/10 showed slight dryness. Systemic symptoms of nasal discharge, lacrimation, hypoactivity and jitteriness were noted in 8 out of 10 animals. Necropsies showed all organs grossly unremarkable.

LD50>2 gm/kg; testing at dose level >5 gm/kg was not been reported
Core minimum data.
Toxicity category III.

3. Primary Eye Irritation, S.A. # 353520: 0.1 ml was applied to one eye of each of 9 NZ white rabbits. Three eyes were washed for one minute beginning 20 seconds after treatment. Other six eyes were left unwashed. Fluorescein scan was used pre-test and 24 hours after testing. No corneal opacity was observed. Conjunctival irritation in the form of erythema, chemosis and discharge was observed, clearing within 24 hours in all except one unwashed eye which cleared within 48 hours.

Core minimum data.
Toxicity category IV.

4. Primary Dermal Irritation, S.A. #353520:0.5 ml was applied at one intact and one abraded site on each of 6 NZ white rabbits, with 24 hr dermal exposure. Very slight erythema and eschhar formation was noted in all samples. Intact skins cleared within 48 hours; abraded skins cleared within 5 days.

PDIS: 0.75.
Toxicity category IV.

COMMENTS:

1. The acute oral LD50, acute dermal LD50, primary eye irritation and dermal irratation tests received on 03-06-84 are acceptable.

2. With reference to item 1 on Agency's letter dated April 10, 1984, information on particle size of the spray is still needed. Should the particle size meet acute inhalation toxicity criteria, data providing acute inhalation LC50 would be needed.

3. Assuming that the product falls in toxicity category III or IV for acute inhalation hazard, proposed labeling is appropriate.

Rita Kumar
IRB, TSS