UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

000717

DATE: September 26, 1979

SUBJECT: EPA Reg. No. 100-582, Conquer L.V.K.

Caswell #96, +641

FROM: Merry Lou Alexander
Toxicology Branch/HED (TS-769)

TO: Product Manager #25
RD (TS-767)

Action Type: Label revision

Recommendations

1. Request for revision of human hazard signal word to "Caution" is not toxicologically supported. Results of two eye irritation studies do not meet Category III criteria. Each has been assigned Toxicity Category II.

2. It should be noted that [redacted] is on the RPAR list (SPRD Status Report, 3/9/79). It should also be noted that prometon appears on the list of "Chemicals Potentially Containing Nitrosamines" (Memo from Dr. M. Rogoff, 10/20/76).

Formulation

CONFIDENTIAL

Prometon technical, 97% active [redacted]

100.00%

[redacted]

CONFIDENTIAL

The applicant presents the above as a new formulation of Conquer L.V.K. The following acute studies were submitted in support of this formulation.

INERT INGREDIENT INFORMATION IS NOT INCLUDED

Review

Chemical name: 2,4-bis(isopropylamino)-6-methoxy-s-triazine

Common name: Prometon

1. Rat acute oral toxicity (Stillmeadow, Inc., Houston, Texas; Project No. 1017-79; February 19, 1979; Test material - Conquer L.V.K. FA230-97 (HG 78225) FL-790007).

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Fasted Sprague-Dawley rats (5/sex/dose level) were given undiluted test material by gavage at levels of 1504, 2034, 2742, and 4999 mg/kg. Animals were observed three times on day of treatment and at least twice daily thereafter for 14 days.

Results: No deaths occurred at the two low doses, 7/10 (2M, 5F) occurred at middle dose, 6/10 (3M, 3F) at 3700 mg/kg, and 9/10 (4M, 5F) at high dose. Signs of toxicity included polyuria, difficult and labored breathing, activity decrease, epistaxis, chromodacryorrhea, piloerection, salivation, ataxia, and lacrimation. Most deaths occurred on the day after dosing.
LD50=3010 mg/kg (2421-3742)

Classification: Core-minimum data
Toxicity Category III

2. Rabbit acute dermal toxicity (Stillmeadow, Inc.; Project No. 1018-79; Feb. 14, 1979; Test material-Conquer L.V.K. FA230-97 (HG 78225) FL-79-0007)

New Zealand White rabbits (5M, 5F) were treated with 2000 mg/kg undiluted test material introduced under polyethylene film wrapping the abraded trunk of each animal. After 24 hours wrappings were removed and exposure areas wiped to remove remaining test material. Observations were made three times on day of treatment and daily thereafter for 14 days.

Results: Erythema was present through day 13 and averaged 1.12. Edema was present through day 14 and averaged 1.27. One animal died. LD50 = >2000 mg/kg.

Classification: Core-minimum data
Toxicity Category III

3. Acute inhalation toxicity in rats (International Research and Development Corp.; Report No. 382-065; March 23, 1979; Test material - Conquer® LVK FA-230-97 HG 78225 FL-790007; IRDC 6642)

Six male, six female Charles River CD rats per exposure level were caged individually and placed in a 160-liter cubical, stainless steel and glass chamber. Animals were examined for pharmacotoxic signs during and immediately after the 4-hour exposure period and twice daily thereafter for 14 days.

Results: 95% of the particles were 7 micrometers or less. Two female animals died within two days of exposure at 21.81 mg/liter. At the 30.72 mg/liter exposure level, one male animal died shortly after exposure; another male died on day 2. Two females died on day 1. Signs of toxicit, noted at both levels included salivation, nasal discharge, eye squint, dyspnea, ataxia, tremors.

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LC50 (combined male and female) = 41.0 mg/L (29.08-57.81).

Classification: Core-minimum data
Toxicity Category IV

4. Primary eye irritation-rabbit (International Research and Development Corp.; Project No. 382-041E; Oct. 12, 1978; Test material -HG 78225)

New Zealand White rabbits (4M, 5F) were administered 0.1 ml test material in one eye each. Three treated eyes received washout 30 seconds after instillation. Treated eyes were examined 1, 24, 48, and 72 hours and at 7 and 14 days post-treatment. The 72-hour and subsequent observations included sodium fluorescein examination.

Results: On day 7 one unwashed eye showed dulling of corneal luster, iridal irritation, and slight redness and chemosis of conjunctivae. All animals were normal by day 14. All washed eyes were normal at 48 hours.

Unwashed: moderately irritating
Washed: mildly irritating

Classification: Core-minimum data
Toxicity Category II

5. Rabbit eye irritation (Stillmeadow, Inc.; Project No. 1019-79; February 14, 1979; Test material-Conquer L.V.K. FA230-97 (HG 78225) FL-790007)

Undiluted test material (0.1 ml) was instilled in one eye each of 9 New Zealand White rabbits. Three of the treated eyes wee washed 30 seconds after treatment. Treated eyes were examined 24, 48, and 72 hours and at 4,7,and 14 days post-treatment.

Results: Dulling of corneal luster noted in two unwashed eyes; both were normal by day 7. Chemosis was noted on two unwashed eyes at day 14. All washed eyes were normal by day 4.

Unwashed maximum average score=16.7 (moderately irritating)

Washed maximum average score=6.0 (mildly irritating)

Classification: Core-Guideline data
Toxicity Category II

6. Rabbit primary skin irritation (Stillmeadow, Inc.; Project No 1020-79; February 14, 1979; Test material-Conquer L.V.K. FA230-97 (HG 78225) FL-790007)

Four test sites (2 intact, 2 abraded) were prepared on each of six female New Zealand White rabbits. Undiluted test material (0.5 ml/site) was introduced under a gauze patch which was then covered by polyethylene film. Wrappings were removed at 24 hours and test sites wiped clean. Animals were observed and scored at 24 and 72 hours.

Results: Erythema and edema were present at both observation times. No signs of ulceration or necrosis were noted. Mean irritation grades were 3.88 for intact skin and 4.21 for abraded skin. Primary irritation score 4.05/8.0 (moderately irritating).

Classification: Core-minimum data
Toxicity Category III

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