

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: August 16, 1977

SUBJECT: EPA #241-243-AA
Prowl and Sencor/Lexone Sequential and Tank Mix
American Cyanamid Herbicide. - Amended Registration

FROM: Toxicology Branch
Spencer, H.W.

TO: PM: Taylor, R.

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Conclusion

- (1) Toxicology Branch has no objections to the sequential or tank mix use of Prowl and Sencor.
- (2) Submit a new eye irritation study on Prowl 4E to rule out a toxicity category I classification. Until receipt of data discounting the severe eye irritation seen in the study submitted, Toxicology Branch finds Prowl 4E classified in TOX CATEGORY I with appropriate warning labels (Danger).
- (3) Toxicology Branch notes the presence of an N-Nitroso contamination of Prowl.

References

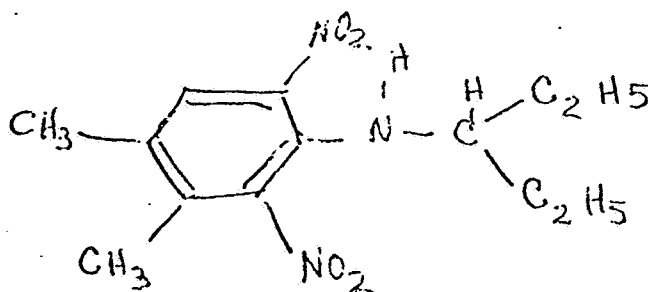
Petition #5F1556, #3G1368
Reviews by: R. Schmidt, D.V.M.

Petition #4G1451 DTD 1/30/74 and R. Engler, Ph.D.
Reg. #4E 241-EXP-X, DTD 2/22/75

Review:

Summaries of data compiled through reviews of the above referenced petitions and registrations are listed below:

FORMULA: Prowl 4E



Formulation: Prowl 4E
Active Ingredient % w/w
([N-(1-ethylpropyl)-3,4-dimethyl-2, 43.8
6 dinitrobenzenamine
Inert Ingredients

The following study data on Prowl Toxicity are considered core minimum data:

(1) Acute Toxicity

Oral Toxicity

LD₅₀ 1050 mg/kg Rat, female (98.7% technical)
LD₅₀ 1250 mg/kg Rat, male (98.7% technical)
LD₅₀ 2140 mg/kg Rat (93%, technical)
LD₅₀ 3380 mg/kg Rat (Prowl 4E)

Skin Irritation - Rabbit (93%, technical) no irritation
Skin Irritation - Rabbit (Prowl 4E) Moderate to Severe
Irritant (Score 5.0)

Eye Irritation - Rabbit (93%, technical) Slight conjunctival
Irritation

Eye Irritation - Rabbit (Prowl 4E) 1/6 showed corneal opacity.
A severe irritant.

Dermal Toxicity - Rabbit (93%, technical) LD₅₀ > 5000 mg/kg

Dermal Toxicity - Rabbit (Prowl 4E) LD₅₀ > 2 ml/kg (from subacute
study)

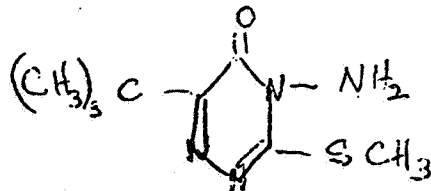
Inhalation Toxicity - Rat (15% Aqueous solution fog)
LC₅₀ > 320 mg/l (Nominal concentration)

21-Day Dermal Toxicity (Prowl 4E) - Slight to moderate erythema and
edema at 2 ml/kg/24 hours.

Chemical:

4-amino-6-(1,1-dimethylethyl)-3-(methylthio)-1,2,4-triazin-5(4H)-One
Sencor, Bay 94337, Metribuzin

Structure:



Data reported below on Sencor was taken from reviews referenced above:

(1) Acute Toxicity

Oral Toxicity - LD₅₀ 2345 mg/kg - Rat, male (technical)
Oral Toxicity - LD₅₀ 2200 mg/kg - Rat, female (technical)
Oral Toxicity - LD₅₀ 4000 mg/kg - Rat, male (50% WP)
Oral Toxicity - LD₅₀ 4753 mg/kg - Rat, female (50% WP)

Dermal Toxicity - LD₅₀ > 20000 mg/kg - Rabbit (technical)
Dermal Toxicity - LD₅₀ > 20000 mg/kg - Rabbit (50% WP)
Inhalation Toxicity - LC₅₀ > 20 mg/L - Rat (technical)
Inhalation Toxicity - LC₅₀ > 20 mg/L - Rat (50% WP)
Dermal Irritation - Rabbit, Slight Irritation at 72 hr. (Technical)
Dermal Irritation - Rabbit, No irritation at 7 day (Technical)
Dermal Irritation - Rabbit, Slight irritation at 72 hr. (50% WP)
Dermal Irritation - Rabbit, No irritation at 7 days (50% WP)

Eye Irritation - Rabbit - No irritation (Technical)
Eye Irritation - Rabbit - Slight irritation (50% WP)
Eye Irritation - Rabbit - No irritation (50% WP)

(2) Subacute Toxicity

90 Day Feeding - Rat - N.E.L. 150ppm (Technical)

H.W. Spencer

H.W. Spencer
E/c cclp q/bq/m