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

\[
\begin{align*}
\text{CH}_3 & \quad \text{N} \quad \text{H} \\
\text{CH}_3 & \quad \text{N} \quad \text{C}_2\text{H}_5 \\
\text{NO}_2 & \quad \text{H} \\
\text{NO}_2 & \quad \text{C}_2\text{H}_5
\end{align*}
\]
The following study data on Prowl Toxicity are considered core minimum data:

(1) Acute Toxicity
- Oral Toxicity: Rat, female (92%, technical) LD50 1200 mg/kg Rat, male (97.2%, technical) LD50 1200 mg/kg
- Dermal Toxicity - Rabbit (Prowl 4E) LD50 > 2 ml/kg
- Inhalation Toxicity - Rat (15% aqueous solution fog) LD50 > 320 mg/l (Nominal concentration) 21-day Dermal Toxicity - Rat (Prowl 4E) - Slight to moderate erythema and edema at 2 ml/kg/24 hours.

2. Skin Irritation - Rabbit (Prowl 4E) Moderate to severe irritant (Score 5.0)
- Dermal Irritation - Rabbit (Prowl 4E) LD50 > 2 ml/kg (from subacute study)
- Eye Irritation - Rabbit (Prowl 4E) 1/6 showed corneal opacity.

3. Skin Sensitization
- Rat (Prowl 4E) 6-dinitrobenzenamine
Chemical:
4-amino-6-(1,1-dimethylethyl)-3-(methythio)-1,2,4-triazin-5(4H)-One
Sencor, Bay 94337, Metribuzin

Structure:

\[
\begin{align*}
\text{(CH}_3\text{)}_3\text{C} & \text{ } \text{N} \text{H}_2 \\
\text{N} & \text{ } \text{S} \text{CH}_3
\end{align*}
\]

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

(1) Acute Toxicity
- Oral Toxicity - LD$_{50}$ 2345 mg/kg - Rat, male (technical)
- Oral Toxicity - LD$_{50}$ 2200 mg/kg - Rat, female (technical)
- Oral Toxicity - LD$_{50}$ 4000 mg/kg - Rat, male (50% WP)
- Oral Toxicity - LD$_{50}$ 4753 mg/kg - Rat, female (50% WP)

- Dermal Toxicity - LD$_{50}$ > 20000 mg/kg - Rabbit (technical)
- Dermal Toxicity - LD$_{50}$ > 20000 mg/kg - Rabbit (50% WP)
- Inhalation Toxicity - LC$_{50}$ > 20 mg/L - Rat (technical)
- Inhalation Toxicity - LC$_{50}$ > 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