May 15, 1978

Prowl Herbicide EPA Registration#241-243 Caswell#454BB

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Action Type: To add use of Prowl on soybeans as follows: (1) Prowl + Lorox PE tank-mixes; (2) Prowl PPI + Lorox PE; (3) Prowl + Amiben PE tank-mixes; (4) Prowl PPI + Amiben PE.

Registrant: American Cyanamid Company
Agricultural Division
P.O. Box 400
Princeton, N.J. 08540

Recommendations:

1. Toxicology Branch does not object to the application for amended use of Prowl applied as a preplant incorporated treatment followed by sequential preemergence application of Lorox or Amiben, and for use of Prowl + Lorox or Prowl + Amiben tank mixtures in treatment of soybeans.

2. The toxicology studies submitted and reviewed are acceptable as core-minimum data and support the amendment.

3. Include in the precautionary labeling on Prowl the statement: Follow the label directions and observe precautions on Lorox and Amiben labels.

(a) Tolerances established
40 CFR 180.361 -N-(1-ethylpropyl)-1,4-dimethyl-2,6-dinitrobenzamine and metabolites

Prowl soybeans -------0.1 ppm
soybeans, forage -------0.1 ppm
soybeans, hay -------0.1 ppm

(b) 40 CFR 180.266. Amiben

Amiben soybeans -------0.1 ppm
soybean, forage -------0.1 ppm

(c) 40 CFR 180.184. Lorox (linuron)

Lorox soybeans (dry and succulent) ------- 1.0 ppm
soybean forage and hay 1.0 ppm
Review

Acute Toxicity of Prowl Tank-Mix Combinations


Test Material: Prowl Tank Mix Combination (use dilution):

Prowl 4-E 1.25 Ai/A
Amiben 2 lb/gal, W.S. at 2.00 lb ai/A
Water = 10 gpa sample no. 76-184

Five male rabbits (NZW strain) each received 5000 mg/kg BW of test material applied to shaved skin under an impervious cuff for 24 hours. Observation for 14 days.

Results: No deaths LD₅₀ ≥ 5000 mg/kg (males)

Toxic Signs: yellow colored urine

Body weight: in survivors gain

Necropsy: not performed

Classification: Core-Minimum Data

(a) only male rabbits were used
(b) Abraded Skin not evaluated
(c) Necropsy not performed TOX Category III: CAUTION

2. Eye Irritation test (Book 19, page 377 American Cyanamid)

Test Material: Same as in Dermal LD₅₀ (above in 1.)

0.1 ml of test material was instilled into the conjunctival sac of six albino rabbits (NZW strain) with the untreated eyes as control. Observation was at 24, 48, 72 hours.

Results: No irritation, no corneal opacity

Classification: Core-Minimum Data

(a) Observation was not made at 7 days but no evidence of irritation was seen at any time.

TOX Category IV: CAUTION
3. Acute Dermal LD$_{50}$ (American Cyanamid, Report A76-90, Aug. 30, 1976, page 201)

**Test Material:** Prowl Tank Mix Combination:

Prowl 4-E at 1.25 lb ai/A  
Lorox 50 w at 1.50 lb ai/A  
Water = 10 gpa sample 76-183

Five male rabbits (NZW strains) each received 5000 mg/kg BW of test material applied to shaved skin under an impervious cuff for 24 hours. Observation for 14 days.

**Results:** No deaths  $LD_{50} \geq 5000 \text{ mg/kg (males)}$

**Toxic Signs:** yellow colored urine

**Body weight:** gain in survivors

**Necropsy:** not performed

**Classification:** Core-Minimum Data

(a) only males were used  
(b) Abraded skin not evaluated  
(c) Necropsy not performed

**TOX Category III:** CAUTION

4. Eye Irritation Test (Book 19, page 376, American Dyanamid)

**Test Material:** Same as Dermal LD$_{50}$ (above in 3)

0.1 ml of test material was instilled into the conjunctival sac of six albino rabbits (NZW strain) with the untreated eyes as control. Observation was at 24, 48, 72 hours.

**Results:** No irritation, no corneal opacity

**Classification:** Core-Minimum Data

(a) Observations were not made at 7 days but no evidence of irritation was seen at any time

**TOX CATEGORY III: CAUTION**
5. Dermal LD$_{50}$ (American Cyanamid, Report A76-92, Aug. 31, 1976, p. 203)

Test Material: Prowl + Lorox - Sample No. 76-183

Five male rabbits (NZW strain) each received 5000 mg/kg BW of test material applied to shaved skin under an impervious cuff for 24 hours. Observation for 14 days.

Results: No deaths  
LD$_{50}$ $> 5000$ mg/kg (males)

Toxic Signs: yellow colored urine

Body Weight: gain in survivors

Necropsy: not performed

Classification: Core-Minimum Data

(a) Only male rabbits were used
(b) Abraded skin not evaluated
(c) Necropsy not performed

TOX Category III: CAUTION

6. Eye Irritation Test (American Cyanamid)

Test Material: Same as dermal LD$_{50}$ (above in 5).

0.1 ml of test material was instilled into the conjunctival sac of six albino rabbits (NZW strain) with the untreated eyes serving as control. Observation was at 24, 48, 72 hours.

Results: No irritation, No corneal opacity

Classification: Core-Minimum Data

(a) Observation was not made at 7 days but no evidence of irritation was seen at any time.

TOX Category IV: CAUTION

RD initial G.E.Whitmore: th: 5/15/78

EGW 5/16/78