Atrazine / Review #5 / 4 pages / 1.18.77

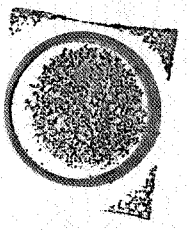
Roberts 63

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

10 Releasable

DATE: January 18, 1977

SUBJECT: Request for amended pesticide product registration - 538-18
Bonus for St. Augustine



FROM: Toxicology Branch R/D
C. Frick C. Frick E for GEW. 1/19/78

TO: Mr. R. J. Taylor Product Manager # 25

Submission Purpose: To allow range of atrazine concentrations on granular fertilizer (for lawns) under a single registration number.

Registrant: O. M. Scott & Sons Co., Marysville, Ohio
Chemical & Formulation: Atrazine - 0.79 - 1.0% AI.
2-chloro-4-ethylamino-6-isopropylamino-s-Triazine
on 26-3-3 Granular Fertilizer

Recommendation: NAC-see comments at end of review

Toxicology Data
→ Acute Oral Toxicity
Sample-Formulated Material
Control Number - F-7921 Batch # 6-260-91 1HL
Content Claimed-2-chloro-4-ethylamine-6-isopropylamino-5-triazine
0.79%

Test animals

Male (No females tested) young adult albino rats (approx. 7 weeks of age) of the Sprague Dawley strain maintained in group cages in air conditioned quarters, provided continuous access to commercial laboratory feed and water and held for a conditioning period of at least 7 days. Observations were made at hourly intervals for 5 hours after dosing (feeding?) and twice daily for the remainder of the two week period. It was stated that, at termination surviving animals were sacrificed and gross post mortem examinations were performed on all animals on test and gross tissue alterations noted-(These data were not submitted).

Method of adminstration- Fed in food jars-concentration of test material was 1 part material, 3 parts lab chow and 1 part corn oil.

Results

Dose level gm/kg	Initial	Terminal	No	Day
5	131	Not given	0/6	
10	128	Not given	0/6	
20	140	Not given	0/5	5,6,7

Oral LD_{50}: Between 10 and 20 gm/kg ?

3/5 ?

Data Classification-Supplemental
Data Source: Warf Institute # 6093478

Acute Dermal Toxicity

Sample- F-7921 Formulated product

Test Animals

Young male (No Females)

Observations were made at hourly intervals for 5 hours after treatment was initiated and twice daily for the remainder of the observation period. It was state that, at termination, surviving animals were sacrificed and gross post mortem examinations were made on all animals on test and gross tissue alterations noted. This information was not submitted for review.

Results:

Animal	Dose gm/kg	Initial	1 week	2 weeks
1	8	2058	2474	2680
2	8	2598	2556	2630
3	8	2223	2551	2790
4	8 ✓	2490	2290	Expired on Test day 8

Acute Dermal

Because of low toxicity (dermal) this study is classified - LD50 >8 gm/kg
Minimum Guideline

Data: Source-Warf Institute # 6093478
Primary Skin Irritation
Sample - F-7921
Young male adult rabbits (approx. 14 weeks old) of the New Zealand white strain, weighing 2.5 and 3.5 kg were used, appropriate conditions were maintained ie. abraded areas etc.
Dosage - 500 mg
Six animals were used.

Results: after 24 and 72 hours both the abraded and non-abraded areas showed no signs of irritation.
Formulation is not a primary skin irritant

Study Classification - Core Minimum

Data Source-Warf Institute # 6093478

Eye Irritation Study

Young Male adult rabbits were used.
Sample Tested - F7921

Method

For each animal treated, 100 mg of test compound was placed into one eye and the untreated eye served as a control.

The reaction to the test material was read at 24 and 48 and 72 hours no reading made at 7 days.

Eye Irritation score at: 24 hour is equal to 2.67
48 hour is equal to 0.67
72 hour is equal to 0.00

Test formulation is not a primary eye irritant.

Data classification-Core Minimum

Data Source: Warf Institute # 6093478

Acute Oral LD_{50}
Compound tested F5762-0.81%
Acute albino male rats of the Sprague-Dawley strain weighing 150-250 gm (No female animals used) were fasted 24 hours, then given a single dose by stomach tube-concentration of test material equal to 500 mg/ml in water.

Results	Dose level	Mortality
	5 gm/kg	0/6
	10 gm/kg	0/6

Animals were observed for two weeks - no pathology reported.
Estimated oral LD_{50}: greater than 10 gm/kg

Data classification-Core Minimum
Data Source: Warf Institute # 1092540

Primary Skin Irritation

Sample F5762 - .81% AI
Dosage is equal to 500 mg - Albino Rabbits

The animals were fitted with collars for a 24 hour period then the coverings removed-test material washed off and the degree of erythema and edema were recorded. A second reading was taken at 72 hours. The average of the 24 and 72 hour readings were used to determine the primary irritation score for the sample. Score = 0. No irritation was noted in any of the six animals used in the study. On the basis of this study this information was not a primary skin irritant.

Data classification - Core Minimum
Data Source - Warf Institute # 1092540

Oral Toxicity
Sample - F4349
AI-2-chloro-4-ethylamino-6-isopropyl-amino-s-Triazine-0.89% in formulation.
Adult albino male rats of the Sprague-Dawley strain, 200-300 gm in weight.
Dosing - Stomach tube syringe for a 25% concentration in distilled water.

Results	Dosage level (gm/kg)	Mortality	
		Number	Day
	5	0/6	-
	10	0/4	-

Estimated LD_{50} = or greater than 10 gm/kg

No female animals used or pathology reported.

Data classification - Core Minimum

Data Source - Warf Institute # 9101105 ✓

Primary Skin Irritation
Sample # F4349
Sample tested contained AI of 0.89%
Albino rabbits used.
Readings were taken and averaged at 24 and 72 hours
Primary skin irritation score at 500 mg dose = 0. On the basis of this study this formulation is not a primary skin irritant.

Data classification = Core Minimum
Data Source - Warf Institute # 9101105

The active ingredients in this formulation is Atrazine. This compound and its status is addressed in the October 20, 1976 memo titled, "Registration Actions on chemicals Potentially containing Nitrosamines". From, D. Campt, Associate Director for registration to Product Branch Chiefs. This reviewer has been informed that this issue, ad hoc, will be resolved at the product manager level.