

US EPA ARCHIVE DOCUMENT

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

PM-25
Robert Taylor
Room 291

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

EPA File Symbol: 100-TIA Evik 80 WDG

DP Barcode: 216866

Chemical: 80801 Ametryn

Test Material: G-34162 80 WDG

From: Lawrence A. Fried, Biologist
Precautionary Review Section
Registration Support Branch (7505W)
Registration Division

To: Robert Taylor, Product Manager, Team 25
Edward Allen, Team 25
Registration Division

Applicant: 100 Ciba Crop Protection
Ciba-Geigy Corporation
P.O. Box 18300
Greensboro, NC 27419-8300

Performing Lab: Stillmeadow, Inc.
12852 Park One Drive
Sugar Land, Texas 77478

Lawrence Fried
01-24-96

FORMULATION FROM LABEL

<u>Ingredient(s)</u>	<u>% by wt.</u>
Ametryn: 2-ethylamino-4-isopropylamino-6-methylthio-s-triazine	76.0
Related compounds	4.0
Inerts	<u>20.0</u>
Total	100.00

BACKGROUND: Ciba-Geigy has submitted acute oral toxicity (436823-02), acute dermal toxicity (436823-03), acute inhalation toxicity (436823-04), primary eye irritation (436823-05), primary dermal irritation (436823-06), dermal sensitization (436823-07) sensitization studies on G-34162 80 WDG, a herbicide. The acute toxicity studies submitted were performed by Stillmeadow, Inc., Sugar Land, Texas.

2.

RECOMMENDATION

81-1. Acute Oral: Category III. The submitted study is acceptable.

81-2. Acute Dermal: Category III. The submitted study is acceptable.

81-3. Acute Inhalation: Category IV. The submitted study is acceptable.

81-4. Eye Irritation: Category III. The submitted study is acceptable.

81-5. Skin Irritation: Category IV. The submitted study is acceptable.

81-6. Dermal Sensitization: The study provided indicates that Evik 80 WD is not a dermal sensitizer to the guinea pig.

LABELING

The appropriate signal word is: "CAUTION"

RECOMMENDED PRECAUTIONARY STATEMENT

Provided at the end of this review.

RECOMMENDED STATEMENTS OF PRACTICAL TREATMENT

Provided at the end of this review.

DATA REVIEW FOR ACUTE ORAL TOXICITY TESTING (§81-1)

Product Manager: R. Taylor
MRID No.: 436823-02
Author: J. Kuhn

Reviewer: L. Fried
Report No.: 1690-94
Report Date: 04-04-95

Conclusion:

LD₅₀: Males > 4000 mg/kg; Females > 2000 mg/kg;
 Combined M and F > 2000 mg/kg
 Toxicity Category: Category III
 Classification: Acceptable
 Quality Assurance (40 CFR §160.12): Included
 Procedure (Deviations from §81-1): None

Testing Facility: Stillmeadow, Inc., Sugar Land, Texas.

Test Material: G-34162 80WDG FL-941748 Batch Code: 51481, white to beige granules.

Test Animal: Rat; Sprague-Dawley derived, albino
Age: Young adults (8-12 weeks)
Weight: Males/Females = 201-281 g
Source: Harlan Sprague Dawley, Inc., Houston, Texas.

Method: Evik 80 WDG was administered by gavage as a 50% w/v suspension in deionized water to male and female albino rats at dose levels of 1000, 2000 (females only), 4000, 5050, and 5500 (males only) mg/kg body weight. Mortality and clinical conditions were evaluated daily during the 14-day observation period.

Results:

Dosage (mg/kg)	Number Dead/Tested		
	Males	Females	Combined
1000	0/5	0/5	0/10
2000	---	0/5	0/5
4000	0/5	2/5	2/10
5050	3/5	5/5	8/10
5500	3/5	---	3/5

DATA REVIEW FOR ACUTE DERMAL TOXICITY TESTING (§81-2)

Product Manager: R. Taylor
MRID No.: 436823-03
Author: J. Kuhn

Reviewer: L. Fried
Report No.: 1691-94
Report Date: 04-04-95

Conclusion:

LD₅₀: Males > 2020 Females > 2020 mg/kg; Combined > 2020 mg/kg
 Toxicity Category: III
 Classification: Acceptable
 Quality Assurance (40 CFR §160.12): Included
 Procedure (Deviations from §81-2): None

Testing Facility: Stillmeadow, Inc., Sugar Land, Texas.

Test Material: G-34162 80WDG FL-941748 Batch Code: 51481, white to beige granules.

Test Animal: Rabbit/New Zealand White
Age: Young adults (3-6 months)
Weight: Males and Females: 2.050-2.650 kg.
Source: Ray Nichols Rabbitry; Lumberton, Texas.

Method: Evik 80WDG, moistened with deionized water, was applied to the intact skin of five male and five female albino rabbits at a dose level of 2020 mg/kg. The exposure areas were occluded for 24 hours and the animals were checked daily during the 14-day observation period for mortality and clinical condition.

Results: All animals were treated with 2020 mg/kg of test material. There was no mortality during the study.

Dosage	Number Dead/Tested		
	Males	Females	Combined
2020 (mg/kg)	0/5	0/5	0/10

DATA REVIEW FOR ACUTE INHALATION TOXICITY TESTING (§81-3)

Product Manager: R. Taylor
MRID No.: 436823-04
Author: M. Holbert

Reviewer: L. Fried
Report No.: 1817-95
Report Date: 04-10-95

Conclusion: LC₅₀: Males > 5 mg/L; Females > 5 mg/L; Males & Females (combined) > 5 mg/L

Toxicity Category: IV

Classification: Acceptable

Quality Assurance (40 CFR §160.12): Included

Procedure (Deviations from §81-3): None

Testing Facility: Stillmeadow Inc., Sugar Land, Texas

Test Material: G-34162 8OWDG FL-941836 ARS-29425

Batch Code: GP-941108, an off-white powder.

Species: Rat; Sprague-Dawley

Age: Young adults

Weight: Males and Females 218-247 g

Source: Harlan Sprague Dawley, Inc., Houston, Texas.

Test Conditions: The test animals were exposed to an aerosol generated from the undiluted test material (fine powder) for a period of four hours.

The results of the inhalation test are summarized below.

Exposure Concentration (mg/l)		Number Dead/Tested		
Airborne	Nominal	Males	Females	Combined
5.667	16.1	0/5	0/5	0/10
EXPOSURE CONDITIONS				
MMAD	5.444 μm			
GSD	3.05			
Particles < 5.44 μm (Avg)	50%			
T-99 value	24 min			
Chamber air flow rate	115 L/min			
No. of air exchanges	11.7/hour			
Chamber Temperature	72° C			
Chamber Relative Humidity	95%			

DATA REVIEW FOR ACUTE EYE IRRITATION TESTING (§81-4)

Product Manager: R. Taylor
MRID No.: 436823-05
Author: J. Kuhn

Reviewer: L. Fried
Report No.: 1692-94
Report Date: 02-15-95

Conclusion:

Toxicity Category: III
Classification: Acceptable
Quality Assurance (40 CFR §160.12): Included
Procedure (Deviations from §81-4): None

Testing Facility: Stillmeadow, Inc., Sugar Land, Texas

Test Material: G-34162 80WDG FL-941748, white to beige granules.

Test Animal: Rabbit; New Zealand White; 3 males and 3 females (nonwashed); 3 males (washed).

Age: Young adult (3-6 months)

Weight: Not specified.

Source: Ray Nichols Rabbitry, Lumberton, Texas

Method: To evaluate eye irritation potential, 0.1 ml by volume (49.0 mg) of undiluted Evik 80 WDG was placed into the conjunctival sac of the right eye of six male and three female albino rabbits. The eyes of three rabbits were washed 30 seconds after instillation and all treated eyes were washed after recording the 24-hour observations.

Results:

Observations	Number positive/tested at				
	1 Hr	24 Hrs	48 Hrs	72 Hrs	4 Days
Cornea Opacity	0/6	2/6	1/6	1/6	0/6
Iritis	0/6	0/6	0/6	0/6	0/6
Conjunctivae: Redness	6/6	5/6	2/6	0/6	0/6
Chemosis	6/6	5/6	1/6	0/6	0/6

Conclusion: There were no positive effects exhibited in nonwashed eyes on day 4 after treatment.

DATA REVIEW FOR SKIN IRRITATION TESTING (§81-5)

Product Manager: R. Taylor
MRID No.: 436823-06
Author: J. Kuhn

Reviewer: Fried
Report No.: 1693-94
Report Date: 04-04-95

Conclusion:

Toxicity Category: IV
Classification: Acceptable
Quality Assurance (40 CFR §160.12): Included
Procedure Deviations from §81-5: None

Testing Facility: Stillmeadow, Inc., Sugar Land, Texas

Test Material: G-34162 80WDG FL-941748 Batch Code:51481, white to beige granules.

Test Animal: Rabbit, New Zealand White
Age: Young adult (3-6 months)
Weight: 2.225-2.750 kg
Source: Ray Nichols Rabbitry; Lumberton, Texas

Method: A 500 mg dose of Evik 80 WDG was moistened with deionized water and applied to the intact skin of each of three male and three female albino rabbits. Treated skin sites were examined for signs of irritation at 3/4, 24, 48, and 72 hours following the 4-hour occlusion period.

Results: Erythema was present at each observation through 24 hours. Edema was not observed at any time throughout the study.

DATA REVIEW FOR SKIN SENSITIZATION TESTING (581-6)

Product Manager: R. Taylor
MRID No.: 436823-07
Author: J. Kuhn

Reviewer: Fried
Report No.: 1694-94
Report Date: 04-12-95

Conclusion:

Toxicity Category: Not a sensitizer
Classification: Acceptable
Quality Assurance (40 CFR §160.12): Included
Procedure Deviations from §81-6: No
Testing Facility: Stillmeadow, Inc., Sugar Land, Texas
Test Material: G-34162 80 WDG, FL-941748, Batch Code: 51481, white to beige granules.
Positive Control: 1-chloro-2,4-dinitrobenzene.
Test Animal: Guinea pig
Age: Young adults (330-397 g)
Weight: 330-397 g
Source: SASCO Inc., Madison, WI.

Method: Dermal sensitization was tested using the Buehler method. In the induction phase of this study, 400 mg of Evik 80 WDG was moistened with deionized water and applied to the prepared skin of each of five male and five female guinea pigs once weekly for three weeks. After each application, the test substance was held in contact with the skin under an adhesive patch for 6 hours. Skin reactions were graded at 24 and 48 hours after the first treatment and at 24 hours after the second and third treatments. A naive control group, also consisting of five male and five female guinea pigs, remained untreated during the induction period.

Following a two-week rest period, animals in both groups were challenged with 400 mg of the test material moistened with deionized water, and skin reactions were graded at 24 and 48 hours after treatment.

Results: No irritation was observed in any of the naive control or test group guinea pigs at challenge, demonstrating that Evik 80 WDG is devoid of skin sensitizing potential.

ACUTE TOX ONE-LINER

ID No.: 100-TIA Evik 80 WDG
 DP Barcode: D216866
 Chemicals: 80801 Ametryn
 Applicant: 100 Ciba-Geigy Corp.
 Test Material: G-34162 80WDG, FL-941748, Batch Code: 51481

Date: January 24, 1996

Study, Animal, Test Laboratory, Study #, Date	MRID No.	Results	Tox. Cat.	Core Grade
Acute Oral, Rat, Stillmeadows Inc., #1690-94, 04-04-95	436823-02	LD ₅₀ >2000 mg/kg	III	A
Acute Dermal, Rabbit, Stillmeadows Inc., #1691-94, 04-04-95	436823-03	LD ₅₀ >2020 mg/kg	III	A
Acute Inhalation, Rat, Stillmeadows Inc., #1817-95, 04-10-95	436823-04	LC ₅₀ >5.67 mg/L	IV	A
Eye Irritation, Rabbit, Stillmeadows Inc., #1692-94, 02-15-95	436823-05	mild irritation clearing by day-4	III	A
Skin Irritation, Rabbit, Stillmeadows Inc., #1693-94, 04-04-95	436823-06	slight erythema	IV	A
Dermal Sensitization, Guinea Pig, #1694-94, 04-12-95	436823-07	nonsensitizer	-	A

A = Acceptable