

US EPA ARCHIVE DOCUMENT



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

Review Completed

1439-260

OFFICE OF PREVENTION,
PESTICIDES AND TOXIC SUBSTANCES

03/MAR/2000

MEMORANDUM

Subject: EPA Reg. No: 1439-260
DP Barcode: D261995
Case No: 062198
PC Code: 071003 Rotenone

From: Masih Hashim, Toxicologist *MHT*
Technical Review Branch *JCR*
Registration Division (7505C)

To: Daniel Peacock, PM Team 04
Insecticide-Rodenticide Branch
Registration Division (7505C)

Applicant: Tifa Limited
Tifa Square
Millington, NJ 07946

FORMULATION FROM LABEL:

<u>Active Ingredient(s):</u>	<u>% by wt.</u>
Rotenone	8.08
<u>Inert Ingredients</u>	<u>91.92</u>
Total:	100.0

BACKGROUND: Tifa has submitted the oral and inhalation studies in support of its product Chem Sect Brand Cube Powder Fish Toxicant, File Symbol 1439-260. These studies were conducted at the Stillmeadow Laboratories, Sugar Land, TX. The Agency assigned the MRID Nos. 448492-01 through 02 to these studies.

RECOMMENDATIONS: Both (oral and inhalation) studies are acceptable in accordance with the Sub-Division F guidelines.

acute oral toxicity	II	acceptable
acute dermal toxicity	-	data gap
acute inhalation toxicity	II	acceptable
primary eye irritation	-	data gap
primary dermal	-	data gap
dermal sensitization	-	data gap

LABELING:

ID #: 001439-00260 CHEM SECT CUBE POWDER FISH TOXICANT

SIGNAL WORD: WARNING

PRECAUTIONARY STATEMENTS:

May be fatal if swallowed or inhaled. Do not breathe vapor. For handling activities in enclosed areas, use either a supplied-air respirator with MSHA/NIOSH approval number prefix TC-19C, or a self-contained breathing apparatus (SCBA) with MSHA/NIOSH approval number TC-13F. Remove contaminated clothing and wash clothing before reuse.

STATEMENT OF PRACTICAL TREATMENT (SOPT):

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

USER SAFETY RECOMMENDATIONS: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

DATA REVIEW FOR ACUTE ORAL TOXICITY TESTING (870.1100)

Product Manager: 04
MRID No.: 448492-01

EPA Reviewer: M Hashim
Study Completion Date: 6-9-99
Study No.: 5016-99

Testing Facility: Stillmeadow Labs
Author: Janice Kuhn
Quality Assurance (40 CFR §160.12):

Test Material: Rotenone Powder
Species: Rats; Albino
Age: Young adult
Weight: 173-301 g
Source: Harlan Sprague Dawley

Conclusion:

1. LD₅₀ (mg/kg):
Males: > 1049 mg/kg
Females: > 209 mg/kg
Combined: > 639 mg/kg
2. The estimated LD₅₀ is > 209 mg/kg (more stringent No.)
3. Tox. Category: II Classification: Acceptable

Procedure (Deviations): None

Results:

Dosage (mg/kg)	Number of Deaths/Number Tested		
	Males	Females	Combined
50	-	0/5	-
250	-	4/5	-
500	0/5	5/5	5/10
1000	2/5	-	-
5050	5/5	-	-

Observations: Clinical signs mainly included decreased activity, ataxia, circling, crusted eyes and nose, diarrhea, piloerection, increased sensitivity to touch and sound. Animals that died on test showed convulsions, gasping, lateral recumbency. Body wts. were affected in 2 males at 1000 mg/kg.

Necropsy: Wet stained fur, withdrawn testes, fluid in lungs, discolored lungs and liver as the main lesions.

DATA REVIEW FOR ACUTE INHALATION TOXICITY TESTING (870.1300)

Product Manager: 04
MRID No.: 448492-02
Study No.: 5017-99

EPA Reviewer: M Hashim
Study Completion Date: 6-9-99

Testing Facility: Stillmeadow Labs
Author: Lori Leeper
Quality Assurance (40 CFR §160.12):

Test Material: Rotenone Powder
Species: Rats; Albino
Age: Young adult
Weight: 181-346 g
Source: Harlan Sprague Dawley

Conclusion

Conclusion:

1. LC₅₀ (mg/L):
 Males: > 0.16 mg/L*
 Females: > 0.35 mg/L
 Combined: > 0.25 mg/L
2. The estimated LC₅₀ is > 0.16 mg/L*
3. Tox. Category: II Classification: Acceptable

Procedure (Deviations): None

Exposure Concentration mg/L	Number of Deaths/Number Tested		
	Males	Females	Combined
0.24	0/5	0/5	0/10
0.38		4/5	
0.64	3/5	5/5	8/10
1.30	5/5	5/5	10/10

Analytical conc.	MMAD	GSD
0.54 mg/L	approx. 3.0 μm	Approx. 3.0

Chamber Environment	
Chamber Volume	500 L
Airflow	153 LPM
Temperature	70-73 ° F
Relative Humidity	56%

Clinical Signs: These signs mostly included decreased activity, piloerection, ptosis for 3 days.

Necropsy: Discolored swollen lungs, gas in the g.i tract.