

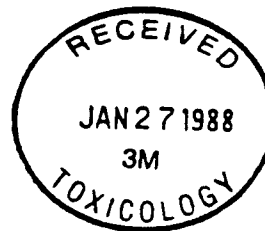
**HAZLETON**

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FINAL REPORT



ROGER G. PERKINS
MINNESOTA MINING & MANUFACTURING COMPANY
TOXICOLOGY SERVICES
ST. PAUL, MN 55101

SAMPLE NUMBER: 70905392
SAMPLE ENTERED: 09/23/87
REPORT PRINTED: 01/21/88

SAMPLE: T-4101

PURCHASE ORDER NUMBER: T837389-410 753

ENCLOSED: ACUTE ORAL TOXICITY STUDY IN RATS (OECD GUIDELINES)

- o Key Personnel
- o Method
- o Summary
- o Individual Pathology Comments
- o References
- o Pathology Report
- o Raw Data Appendix

SIGNED:

Steven M. Glaza
STEVEN M. GLAZA
STUDY DIRECTOR
ACUTE TOXICOLOGY

DATE

1-21-88

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KEY PERSONNEL

Acute ToxicologySteven M. Glaza
Study DirectorCalvin L. Horton
Group Leader
Support ServicesSharen L. Howery
Report CoordinatorQuality AssuranceDebra Curley Arndt
ManagerAnatomical PathologyThomas E. Palmer, PhD
Anatomical PathologistRobert Salava
Senior Section SupervisorDennis Hoffman
Group Leader
NecropsyAnne Mosher
Group Leader
Pathology DataLaboratory Animal VeterinarianCindy J. Cary, DVM
Diplomate, ACLAM



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SAMPLE: T-4101

OECD ORAL SCREEN

Objective: To determine the acute oral toxicity produced when a test material is administered by the oral route (gavage) to rats according to the Organisation for Economic Cooperation and Development's Guidelines for Testing Chemicals.

Test Material: T-4101

Physical Description: Clear, yellow liquid

Purity and Stability: Sponsor assumes responsibility for purity and stability determinations.

Storage and Retention: The test material was stored at room temperature. Any unused material will be discarded according to HLA Standard Operating Procedure.

Safety Precautions: Normal handling procedures were used according to HLA Standard Operating Procedure.

Test Animal: Young adult albino rats of the Sprague-Dawley strain were procured, separated by sex, maintained in group cages in temperature- and humidity-controlled quarters, provided continuous access to Purina Rodent Chow and water, and held for an acclimation period of at least 7 days. Animal husbandry and housing at HLA comply with standards outlined in the "Guide for the Care and Use of Laboratory Animals". If variations from the prescribed environmental conditions existed, they were documented and considered to have no effect on the study outcome. No contaminants were expected to have been present in the feed or water which would have interfered with or affected the results of the study.

Acclimated animals were chosen at random for the study. Test animals were housed by sex in groups of five and identified by animal number and corresponding ear tag. Food and water were available ad libitum throughout the study, except for an overnight period just before test material administration when food, but not water, was withheld.

Reason for Species Selection: The rat is the animal classically used due to its small size, ready availability, and large amount of background data.

Method: Five male and five female rats weighing from 200 to 298 g were used for each dose level. The study consisted of two dose levels (0.50 and 5.0 g/kg).

Preparation and Administration of Test Material: An individual dose was calculated for each animal based upon its fasted body weight and administered undiluted by gavage.

The dose volume of the test material varied per dose level based upon an average bulk density of 1.13 g/ml.

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OECD ORAL SCREEN

(CONTINUED)

Reason for Route of Administration: This is the method for administering a known quantity of test substance and has been the route of choice historically.

Observations: The animals were observed for clinical signs and mortality at 1, 2.5 and 4 hours after test material administration and daily thereafter for at least 14 days.

All animals were weighed just before test material administration, at 7 days and at study termination (or at death).

Pathology: At study termination surviving animals were euthanatized. Animals which died on study or euthanatized at study termination were subjected to a gross necropsy examination and abnormalities recorded. Following necropsy, animals were discarded and no tissues were saved.

Statistical Methods: Other than average body weights, no other statistical method was performed.

Location of Raw Data and Final Report: The raw data and a copy of the final report will be retained in the archives of HLA.

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SAMPLE: T-4101

OECD ORAL SCREEN

(CONTINUED)

SUMMARY

Test Animal: Albino Rats - Sprague-Dawley strain
Source: Charles River Laboratories, Inc., Portage MI
Date Animals Received: 09/08, 09/28, 10/12, and 10/26/87

Method of Administration: Oral Gavage

Date Test Started: 10/16/87

Date Test Completed: 11/20/87

Estimated Oral LD50: Male - Between 0.50 and 5.0 g/kg of body weight
Female - Between 0.50 and 5.0 g/kg of body weight

	Dose Level (g/kg)	Average Body Weights (g)			Mortality (Number Dead/Number Dosed)
		Initial	Day 7	Terminal	
Male	0.50	266	340	370	0/5
	5.00	278	---	---	5/5
Female	0.50	203	230	237	0/5
	5.00	208	166	232	4/5

CLINICAL SIGNS
(No. of Animals Affected)

Hours			Days													
1.0	2.5	4.0	1	2	3	4	5	6	7	8	9	10	11	12	13	14

DOSE LEVEL: 0.50 g/kg

Males

Appeared Normal 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

Females

Appeared Normal 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5



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OECD ORAL SCREEN

(CONTINUED)

CLINICAL SIGNS (Continued)
(No. of Animals Affected)

	Hours			Days													
	1.0	2.5	4.0	1	2	3	4	5	6	7	8	9	10	11	12	13	14

DOSE LEVEL: 5.0 g/kg

Males

Appeared Normal	3	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-
Hypoactivity	2	5	5	5	5	5	3	1	0	-	-	-	-	-	-	-	-
Ataxia	0	0	5	5	0	5	3	1	0	-	-	-	-	-	-	-	-
Red-stained face	0	0	0	1	4	5	3	1	0	-	-	-	-	-	-	-	-
Pain reflex absent	0	0	0	0	0	4	2	1	0	-	-	-	-	-	-	-	-
Miosis	0	0	1	0	0	0	0	0	0	-	-	-	-	-	-	-	-
Yellow-stained genital region	0	0	0	0	0	2	1	0	0	-	-	-	-	-	-	-	-
Death	0	0	0	0	0	0	2	2	1	-	-	-	-	-	-	-	-

Females

Appeared Normal	3	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
Hypoactivity	2	5	5	5	3	3	3	2	2	1	1	1	0	0	0	0	0
Yellow-stained genital region	0	1	1	5	3	3	3	2	2	1	1	1	0	0	0	0	0
Diarrhea	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Ataxia	0	1	5	5	1	3	3	2	2	1	0	1	0	1	0	0	0
Red-stained face	0	0	5	5	2	3	3	2	2	1	1	0	0	0	0	0	0
Prostration	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Tremors	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Pain reflex absent	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0
Cyanosis	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Death	0	0	0	2*	0	0	0	1	0	1	0	0	0	0	0	0	0

* Animals died following a.m. observations.

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DECO ORAL SCREEN

(CONTINUED)

PATHOLOGY

DOSE LEVEL: 0.50 g/kg of body weight

Animal Number	Sex	Test Day		Necropsy Comments
		Died	Sacrificed	
C03078	M	-	14	No visible lesions.
C03074	M	-	14	No visible lesions.
C03077	M	-	14	No visible lesions.
C03076	M	-	14	No visible lesions.
C03073	M	-	14	No visible lesions.
C03245	F	-	14	No visible lesions.
C03243	F	-	14	No visible lesions.
C03246	F	-	14	No visible lesions.
C03244	F	-	14	No visible lesions.
C03327	F	-	14	No visible lesions.

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OECD ORAL SCREEN

(CONTINUED)

PATHOLOGY (Continued)

DOSE LEVEL: 5.0 g/kg of body weight

Animal Number	Sex	Died	Test Day Sacrificed	Necropsy Comments
C00544	M	4	-	Perianal stains - tan; ocular discharge (bilateral) - red and black, crusted; gastrointestinal tract (GI) - severely autolyzed.
C00542	M	4	-	Perianal stains - tan; ocular discharge (bilateral) - red and crusted; stomach - glandular mucosa diffusely red with multiple dark brown linear areas, 4 x 1 mm.
C00545	M	4	-	Perianal stains - tan; stomach - glandular mucosa, multiple dark brown linear areas, up to 3 x 2 mm.
C00551	M	5	-	Perianal stains - tan; ocular discharge (bilateral) - red and crusted; stomach - glandular mucosa has two dark brown linear areas, both are 10 x 2 mm.
C00548	M	5	-	GI tract - very autolyzed.



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OECD ORAL SCREEN

(CONTINUED)

PATHOLOGY (Continued)

DOSE LEVEL: 5.0 g/kg of body weight (continued)

Animal Number	Sex	Test Day	Died Sacrificed	Necropsy Comments
C00988	F	1	-	Perineum - stained brown; ocular discharge (bilateral) - red; stomach - contains green semi-solid material.
C00976	F	1	-	Perineum - stained brown; ocular discharge (bilateral) - red; perenasal discharge - red; stomach - contains clear, oily material.
C00987	F	-	14	No visible lesions.
C01005	F	5	-	Nasal discharge - red; perianal and inguinal stains - tan; stomach - glandular mucosa has multiple, dark brown linear areas, up to 4 x 2 mm.
C00957	F	7	-	Stomach - glandular mucosa has multiple dark red linear areas, up to 3 x 1 mm.

References:

1. Hitch, R.K., "Acute Oral Toxicity Study," Pesticide Assessment Guidelines, Subdivision F, Hazard Evaluation: Human and Domestic Animals, U.S. Environmental Protection Agency Office of Pesticide and Toxic Substances Series 81-1, pp. 34-39 (November 1982).
2. 21 CFR 58 (United States Food and Drug Administration's Good Laboratory Practices Regulations for Nonclinical Laboratory Studies).
3. NIH Publication No. 85-23 (revised 1985).

HLA LAB NO. 70905392
PATHOLOGY REPORT
Acute Oral Toxicity

Ten rats (five males, five females) from each of two dose levels (0.5 and 5.0 g/kg) were necropsied. The animals that died on test were refrigerated and necropsied within 24 hours, usually the same day. All surviving animals were euthanatized and necropsied at the termination of the study. The dose level, day of death and gross observations recorded for each animal are on pages 7 to 9 of this report.

The only recorded observations were in those animals that died on test. The stomach contained material of variable consistency and color which possibly represents test material mixed with ingesta. The gastric mucosa in some animals had focal red or brown linear areas which were possibly treatment related. All other observations were considered related to postmortem change or incidental findings which were not related to treatment.


Thomas E. Palmer, PhD
Pathologist

1-21-88
Date

(1734mcs)

HLA No. 70905392

**Personnel Signature Sheet
Acute Toxicology**

<u>NAME</u>	<u>Job Title</u>	<u>Signature</u>	<u>Initials</u>
Becky Beckwith	Sr. Lab. Animal Asst.	<u>Becky Beckwith</u>	<u>BB</u>
Steve Beloungy	Lab. Animal Asst.	<u>Steve Beloungy</u>	<u>SB</u>
Ken Bridges	Sr. Lab. Animal Asst.	<u>Ken Bridges</u>	<u>KB</u>
Pat Crary	Sr. Lab. Animal Asst.	<u>Pat Crary</u>	<u>PC</u>
Shane Eith	Lab Animal Asst.	<u>Shane Eith</u>	<u>SE</u>
Shawn Frazier	Lab Animal Asst.	<u>Shawn Frazier</u>	<u>SF</u>
Steven M. Glaza	Group Leader	<u>Steven M. Glaza</u>	<u>SG</u>
Molly Hahn	Admin. Clerk	<u>Molly Hahn</u>	<u>MH</u>
Kevin Hamilton	Lab. Animal Asst.	<u>Kevin Hamilton</u>	<u>KH</u>
Jeff Hicks	Sr. Lab. Animal Asst.	<u>Jeff Hicks</u>	<u>JH</u>
Calvin Horton	Group Leader	<u>Calvin Horton</u>	<u>CH</u>
Sharon L. Howery	Administrative Asst.	<u>Sharon L. Howery</u>	<u>SH</u>
Gregory Johnson	Lab. Animal Tech.	<u>Gregory Johnson</u>	<u>GJ</u>
Paul Krebs	Lab. Animal Asst.	<u>Paul Krebs</u>	<u>PK</u>
Wayne Madison	Section Supervisor	<u>Wayne A. Madison</u>	<u>WM</u>
Scott McConnell	Lab. Animal Tech.	<u>Scott McConnell</u>	<u>SM</u>
Shelley McConnell	Lab. Animal Tech.	<u>Shelley McConnell</u>	<u>SMC</u>
Dawn Conant	Sr. Lab. Animal Asst.	<u>Dawn Conant</u>	<u>DC</u>
Don Davis	Lab. Animal Asst.	<u>Don Davis</u>	<u>DD</u>
Robin Olson	Lab. Animal Asst.	<u>Robin Olson</u>	<u>RO</u>
Patricia Padgham	Team Leader	<u>Patricia Padgham</u>	<u>TP</u>
Joseph J. Dawn	Lab. Animal Asst.	<u>Joseph J. Dawn</u>	<u>JD</u>
Michael Patzka	Lab. Animal Asst.	<u>Michael Patzka</u>	<u>MP</u>
John Paulson	Sr. Lab. Animal Asst.	<u>John Paulson</u>	<u>JP</u>
Jane Polnow	Lab. Animal Tech.	<u>Jane Polnow</u>	<u>JP</u>
Dennis B. Steiner	Lab. Animal Tech.	<u>Dennis B. Steiner</u>	<u>DS</u>
Michael Thesing	Lab. Animal Asst.	<u>Michael Thesing</u>	<u>MT</u>
Paula G. Vangen	Administrative Asst.	<u>Paula G. Vangen</u>	<u>PV</u>
Albert Olson	Manpower	<u>Albert Olson</u>	<u>AO</u>
Jim Jirschele	LTE	<u>Jim Jirschele</u>	<u>JJ</u>
Ben Haley	Sr. Lab Animal Asst.	<u>Ben Haley</u>	<u>BH</u>
Eileen M. McConnell	Admin. Clerk	<u>Eileen M. McConnell</u>	<u>EM</u>
Annette R. Turner	Manpower	<u>Annette R. Turner</u>	<u>AT</u>

DOSE ADMINISTRATION/BODY WEIGHT/MORTALITY RECORD

Study Title: Acute Oral Toxicity

Test Material: T-4101

Bulk Density: 1.13 (g/mL) S

base level: 0.5 (m/s)

Route of Administration: Oral

Vehicle: NA

11/10/2010

✓

DATE: 09/21/2022

10/12/87 3

8/28/95

Dose Volume 0.44 (ml/kg)		Sex: Male female		Dose Time: 11:15 AM		1987	
Animal No.	CO	3078	3074	3077	3076	3073	Date
Prefasted Body Weight (g)		NA					11/6
Fasted Body Weight (g)		281	265	276	234	273	11/6
Actual Dose (ml)		0.12	0.12	0.12	0.10	0.12	11/6
Day 7 Body Weight (g)		352	357	351	291	348	11/13
Day 14 Body Weight (g)		382	385	391	313	380	11/20
Dead Body Weight (g)							

[illegible][illegible]

NA - Not Applicable
 * - Dosage calculated, but not administered
 unused animal returned to stock

① Entered wrong date Bt 11/5/87

Reviewed by Qa Date 12/18/87

HLA: 70905392

OBSERVATIONS (Individual)

Dose level: 0.5 g./kg. Test material: T-4101

Male/Female

Animal Number	Observations Appeared Normal	Pre-dose	Hours				Study Day													
			1	2.5	4		1	2	3	4	5	6	7	8	9	10	11	12	13	14
CO 3078		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO 3074	Appeared Normal	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO 3077	Appeared Normal	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO 3076	Appeared Normal	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO 3073	Appeared Normal	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Deaths																				
Collected by		3H	3H	3H	3H	3H	3H	3H	3H	3H	3H	3H	3H	3H	3H	3H	3H	3H	3H	3H
Date 1987		11/6	11/6	11/6	11/6	11/6	11/6	11/6	11/6	11/6	11/6	11/6	11/6	11/6	11/6	11/6	11/6	11/6	11/6	11/6

- Surviving animals submitted for terminal necropsy. Technician BSK Date 11/20/87

- Surviving animals designated for sacrifice and discard. Technician NA Date NA

✓ Indicates condition exists
 S1 Slight.
 - Condition not evident.
 + Found dead, P.M. check.
 NA Not applicable
 Reviewed by: OP
 Date: 12/14/87

HLA: 70905392

OBSERVATIONS (Individual)

Dose level: 0.5 g./kg. Test material: T-4101

Male Female

Animal Number	Observations	Pre-dose	Hours				Study Day													
			1	2	3	4	5	6	7	8	9	10	11	12	13	14				
CO 3245	Appeared Normal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
CO 3243	Appeared Normal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
CO 3246	Appeared Normal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
CO 3244	Appeared Normal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
CO 3327	Appeared Normal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Deaths																				
Collected by																				
Date																				

- Surviving animals submitted for terminal necropsy. Technician BSK Date 11/20/87

- Surviving animals designated for sacrifice and discard. Technician NA Date NA

✓ Indicates condition exists
SI Slight.
- Condition not evident.
• Found dead, P.M. Check
NA Not applicable BSK 11/20/87
Reviewed by: BSK
Date: 12/14/87

DOSE ADMINISTRATION/BODY WEIGHT/MORTALITY RECORD

Study Title: Acute Oral Toxicity

Test Material: T-4101

Vehicle: ALFA

Bulk Density: 1.13 (g/mL) Specimen/Strain: Albino Rat/Sprague-Dawley Source: Charles River Date Received: 3/5/81 2

Dose Level: 5.0 (mg) Fasted Date/Time/Technician 05-87 4:15 p.m. 34 Room No. 5

Route of Administration

Urose Volume	4.42 (ml/g)	CO	Scale Used	Kron	1931 Date	Technician	Urose Time	10:20 AM
Animal No.	0544	0542	0545	0548	10/16	BS	0550	
Prefasted Body Weight (g)	NA							NA
Fasted Body Weight (g)	272	262	292	276	10/16	BS	302	1509
Actual Body (ml)	1.2	1.2	1.3	1.2	10/16	BS	1.3	Verified by: JMC 10-16-87
Max 7 Body Weight (g)	Found Dead 10/20/87	Found Dead 10/20/87	Found Dead 10/20/87	Found Dead 10/20/87			*	
Max 14 Body Weight (g)	Found Dead 10/20/87	Found Dead 10/20/87	Found Dead 10/20/87	Found Dead 10/20/87			*	
Dead Body Weight (g)	212	214	224	207			NA	

Base Volume	4-42 (ml/gal)	Serial Weight (lb)	Base 1500	10:25 AM	Technician	1987 Date	Scale Used K100N
Actual Wt.	CO	0157	0987	0991	BB	10/16	NA
Prefilled Body Weight (g)							
10:25		204	215	219	BB	10/16	15019
Actual Dose (ml)		0.90	0.90	0.90	BA	10/16	15019
Dose 1 Body Weight (g)		Dead	Dead	Dead	BA	10/23	15019
Dose 2 Body Weight (g)		Dead	Dead	Dead	BA	10/30	15019
Dose 3 Body Weight (g)		Dead	Dead	Dead	BA		
Dose 4 Body Weight (g)		Dead	Dead	Dead	BA		
Dose 5 Body Weight (g)		Dead	Dead	Dead	BA		

[illegible]

NA - Not Applicable

Doseage calculated, but not administered
unused animal returned to stockReviewed By CR Date 8/14/87

① Entry Errors 3rd 10/16/87
② Animal died 100% Am dose injection 3 10-17-87
③ Form changed due to entry error discovered 10-20-87 Jan. 10-20-87

HLA: 7090534

OBSERVATIONS (Individual)

Dose level: 5.0 g/kg Test material: T-401

Animal Number	Sex	Observations	Pro- dose	Hours	Study Day																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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Quarantine term used 10/18/87

Surviving animals submitted for terminal necropsy. Technician NA Date NA

Surviving animals designated for sacrifice and discard. Technician NA Date NA

Indicates condition exists
SI Slight.
Condition not evident.
Found dead, P.M. check NA Not applicable 11/20/87
Reviewed by: J.P.
Date: 12/14/87

Animal # 00542 Found Dead AM 10/20/87 OK

HLA: 70905312

OBSERVATIONS (Individual)

Dose level: 5.0 g/kg Test material: T-4101

Male/Female		Pre-dose	Hours				Study Day													
Animal Number	Observations		1	2.5	4		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1005	appeared Normal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	hypoaactive	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	ataxia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	red stained face	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	yellow stained genital region	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0957	appeared Normal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	hypoaactive	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	yellow stained genitals	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	ataxia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	red stained face	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0988	Dead	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	appeared Normal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	hypoaactive	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	ataxia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	red stained face	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0976	yellow stained genital region	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	ataxia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	red stained face	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	yellow stained genital region	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	ataxia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0987	Dead	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	appeared Normal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	hypoaactive	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	ataxia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	red stained face	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Deaths		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Collected by		DA	DA	DA	DA	DA	DA	DA	DA	DA	DA	DA	DA	DA	DA	DA	DA	DA	DA	DA
Date		10/14	10/14	10/14	10/14	10/14	10/14	10/14	10/14	10/14	10/14	10/14	10/14	10/14	10/14	10/14	10/14	10/14	10/14	10/14

① found dead after AM observation 10/17/87
② entered adose values twice for the same animal 10/17/87

- Surviving animals submitted for terminal necropsy. Technician RA
Date 10/30/87

- Surviving animals designated for sacrifice and discard. Technician NA
Date NA

✓ Indicates condition exists
SI Slight.
- Condition not evident.
• Found dead, P.M. check
NA Not applicable
Reviewed by: OP
Date: 12/14/87

① Entry Errors Oct 10/16/87
② Entry error corrected on 12/14/87