

AD-A164 654



INSTITUTE REPORT NO. 204

ACUTE ORAL TOXICITY (LD_{50}) OF GUANIDINE HYDROCHLORIDE IN RATS

EARL W. MORGAN, DVM, CPT VC
STEVEN K. SANO, BA, SP5
and
DON W. KORTE JR, PhD, MAJ MSC

DTIC
ELECTE
FEB 25 1986
S D

TOXICOLOGY GROUP
DIVISION OF RESEARCH SUPPORT

DTIC FILE COPY

AUGUST 1985

Toxicology Series 77

LETTERMAN ARMY INSTITUTE OF RESEARCH
PRESIDIO OF SAN FRANCISCO, CALIFORNIA 94129

86 2 24 005

Acute Oral Toxicity (LD₅₀) of Guanidine Hydrochloride in Rats
(Toxicology Series 77)--Morgan, Sano, and Korte

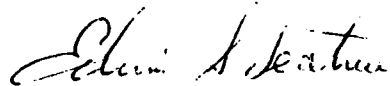
Reproduction of this document in whole or in part is prohibited except with the permission of the Commander, Letterman Army Institute of Research, Presidio of San Francisco, California 94129. However, the Defense Technical Information Center is authorized to reproduce the document for United States Government purposes.

Destroy this report when it is no longer needed. Do not return it to the originator.

Citation of trade names in this report does not constitute an official endorsement or approval of the use of such items.

In conducting the research described in this report, the investigation adhered to the "Guide for the Care and Use of Laboratory Animals," as promulgated by the Committee on Revision of the Guide for Laboratory Animal Facilities and Care, Institute of Laboratory Animal Resources, National Research Council.

This material has been reviewed by Letterman Army Institute of Research and there is no objection to its presentation and/or publication. The opinions or assertions contained herein are the private views of the author(s) and are not to be construed as official or as reflecting the views of the Department of the Army or the Department of Defense. (AR 360-5)

 23 Aug '85
(Signature and date)

EDWIN S. BEATRICE, M.D.
Colonel, MC
Commanding, LAIR

This document has been approved for public release and sale; its distribution is unlimited.

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER LAIR Institute Report No. 204	2. GOVT ACCESSION NO. ADA/64654	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Acute Oral Toxicity (LD ₅₀) of Guanidine Hydrochloride in Rats	5. TYPE OF REPORT & PERIOD COVERED Final 19 Jan - 14 Feb 1984	
	6. PERFORMING ORG. REPORT NUMBER	
7. AUTHOR(s) Earl W. Morgan, DVM, CPT VC Steven K. Sano, BA, SP4 Don W. Korte, Jr., PhD, MAJ MS	8. CONTRACT OR GRANT NUMBER(s)	
9. PERFORMING ORGANIZATION NAME AND ADDRESS Toxicology Group, Division of Research Support Letterman Army Institute of Research Presidio of San Francisco, CA 94129-6800	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS 3E162720A835	
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Medical Research and Development Command Fort Detrick, MD 21701-5012	12. REPORT DATE August 1985	13. NUMBER OF PAGES 110
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)	15. SECURITY CLASS. (of this report) UNCLASSIFIED	
	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE	
16. DISTRIBUTION STATEMENT (of this Report) THIS DOCUMENT HAS BEEN CLEARED FOR PUBLIC RELEASE AND SALE: ITS DISTRIBUTION IS UNLIMITED.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Acute Oral Toxicity, Guanidine Hydrochloride, LD ₅₀ , Mammalian Toxicology		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The acute oral toxicity of guanidine hydrochloride was determined in male and female Sprague-Dawley rats by using the oral gavage single-dose method. The LD ₅₀ ± S.E. for male rats was 556.5 ± 29.7 mg(base)/kg and 474.6 ± 35.3 mg(base)/kg for female rats. Clinical signs were observed in both the gastrointestinal (GI) tract and the central nervous system-neuromuscular junction (CNS-NM). Symptoms referable to the GI tract included increased salivation, hunched posture, and diarrhea. CNS-NM signs included		

cont'd

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

20. (continued)

disorientation, increased startle reflex, hyperactivity, jumping behavior, presence of tremors/twitching and depression of grasping and righting reflexes. These results place guanidine hydrochloride in slightly toxic and moderately toxic ranges respectively.

ABSTRACT

The acute oral toxicity of guanidine hydrochloride was determined in male and female Sprague-Dawley rats by using the oral gavage single-dose method. The LD₅₀ ± S.E. for male rats was 556.5 ± 29.7 mg(base)/kg and 474.6 ± 35.3 mg(base)/kg for female rats. Clinical signs were observed in both the gastrointestinal (GI) tract and the central nervous system-neuromuscular junction (CNS-NM). Symptoms referable to the GI tract included increased salivation, hunched posture, and diarrhea. CNS-NM signs included disorientation, increased startle reflex, hyperactivity, jumping behavior, presence of tremors/twitching and depression of grasping and righting reflexes. These results place guanidine hydrochloride in slightly toxic and moderately toxic ranges respectively.

KEY WORDS: Acute Oral Toxicity, Guanidine Hydrochloride,
LD₅₀, Mammalian Toxicology

Accession For	
NTIS CRA&I	☒
DTIC TAB	☐
Unannounced	☐
Justification	
By	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	24



PREFACE

TYPE REPORT: Acute Oral Toxicity (LD₅₀) GLP Study Report

TESTING FACILITY: US Army Medical Research and Development Command
Letterman Army Institute of Research
Presidio of San Francisco, CA 94129-6800

SPONSOR: US Army Medical Research and Development Command
US Army Medical Bioengineering Research
and Development Command
Fort Detrick, Frederick, MD 21701-5010
Project Officer: Jesse Barkley, MS

PROJECT/WORK UNIT/APC: Nitrocellulose-Nitroguanidine Projects,
WU 180, APC TL09

GLP STUDY NUMBER: 83019

STUDY DIRECTOR: MAJ Don W. Korte Jr., PhD, MS

PRINCIPAL INVESTIGATOR: CPT Earl W. Morgan, DVM, VC
Diplomate of American College of
Veterinary Preventive Medicine

CO-PRINCIPAL INVESTIGATOR: SP4 Steven K. Sano, BA

PATHOLOGIST: MAJ Glen E. Marrs, DVM, MS, VC, Diplomate of American
College of Veterinary Pathologists

DATA MANAGER: Carolyn M. Lewis, MS

REPORT AND DATA MANAGEMENT: A copy of the final report, study
protocol, retired SOPs, raw data,
analytical, stability, and purity data of
the test compound, tissues, and an
aliquot of the test compound will be
retained in the LAIR Archives.

TEST SUBSTANCE: Guanidine Hydrochloride

INCLUSIVE STUDY DATES: 19 January - 14 February 1984

OBJECTIVE: The objective of this study was to determine the acute
oral toxicity of guanidine hydrochloride in male and
female Sprague-Dawley rats.

ACKNOWLEDGMENT

The authors wish to thank the following individuals for their contributions to the successful completion of this study: SP5 Thomas P. Kellner, BA, SP5 Justo Rodriguez, BS, Gerald F.S. Hiatt, Ph.D., Carolyn M. Lewis, MS, Susan Hernandez, and Edward Sands for research assistance; Callie B. Crosby, and Brenda V. Goce for secretarial assistance. The authors would also like to thank Dr. Gunda Reddy, US Army Medical Bioengineering Research and Development Laboratory, for his technical and administrative assistance on this project.

SIGNATURES OF PRINCIPAL SCIENTISTS AND MANAGERS INVOLVED IN THE STUDY

We, the undersigned, declare that GLP Study Number 83019 was performed under our supervision, according to the procedures described herein, and that this report is an accurate record of the results obtained.

Don W. Korte 10 May 85
DON W. KORTE JR., PH.D. / DATE
MAJ, MS
Study Director

Steven K. Sano 10 May 85
STEVEN K. SANO, BA / DATE
SP4, USA
Co-Principal Investigator

Glen E. Marks Jr.
GLEN E. MARKS JR., DVM / DATE
MAJ, VC
Pathologist

Carolyn M. Lewis 10 May 85
CAROLYN M. LEWIS, MS / DATE
DAC
Data Manager

Earl W. Morgan
EARL W. MORGAN, DVM / DATE
CPT, VC
Principal Investigator

Conrad Wheeler
CONRAD WHEELER, Ph.D. / DATE
DAC
Analytical Chemist



DEPARTMENT OF THE ARMY
LETTERMAN ARMY INSTITUTE OF RESEARCH
PRESIDIO OF SAN FRANCISCO, CALIFORNIA 94129

REPLY TO
ATTENTION OF:

SGRD-ULZ-QA

18 August 1985

MEMORANDUM FOR RECORD

SUBJECT: Report of GLP Compliance

1. I hereby certify that in relation to LAIR GLP Study 83019 the following inspections were made:

31 January 1984

2. The report and raw data for this study were audited on 25 February 1985.

3. Routine inspections with no adverse findings are reported quarterly, thus these inspections are also included in the 11 April 1984 report to Management and the Study Director.

GARY L. DUTCHER
SP6, USA
Quality Assurance Unit

TABLE OF CONTENTS

	Page
Abstract.....	i
Preface.....	iii
Acknowledgments.....	iv
Signatures of Principal Scientists.....	v
Report of Quality Assurance Unit.....	vi
Table of Contents.....	vii
BODY OF REPORT	
INTRODUCTION.....	1
Toxicity Testing.....	1
Objective of Study.....	1
MATERIALS	
Test Substance.....	1
Vehicle.....	2
Animal Data.....	2
Husbandry.....	2
METHODS	
Group Assignment/Acclimation.....	2
Dose Levels.....	2
Compound Preparation.....	3
Chemical Analysis of Dosing Solution.....	3
Test Procedures.....	3
Observations.....	4
Necropsy.....	4
Statistical Analysis.....	4
Duration of Study.....	4
Changes/Deviations.....	4
Raw Data and Final Report Storage.....	5
RESULTS	
Mortality.....	5
Lethal Dose Calculations.....	7
Clinical Observations.....	10
Gross Pathological Observations.....	14

Table of Contents (continued)

DISCUSSION.....	14
CONCLUSION.....	15
RECOMMENDATION.....	15
REFERENCES.....	16
APPENDICES	
Appendix A, Chemical Data.....	19
Appendix B, Animal Data.....	21
Appendix C, Historical Listing of Study Events.....	23
Appendix D, Cumulative Mortality Data.....	25
Appendix E, Individual Animal Histories.....	27
Appendix F, Individual Body Weights.....	83
Appendix G, Pathology Report.....	95
OFFICIAL DISTRIBUTION LIST.....	98

Acute Oral Toxicity (LD₅₀) of Guanidine Hydrochloride in Rats--Morgan et al

Nitroguanidine is being evaluated by the US Army as a replacement for the nitrocellulose component of certain propellants/munitions. The US Army Medical Bioengineering Research and Development Laboratory (USAMBRDL) has been assigned the mission of evaluating the "health effects" of nitroguanidine. As part of their mandate, USAMBRDL has tasked the Toxicology Group, LAIR to develop a toxicological profile for nitroguanidine and by-products of its manufacture in accordance with the Toxic Substances Control Act regulations promulgated by the Environmental Protection Agency. One of the by-products to be tested is guanidine. The hydrochloride salt was used in this evaluation of the acute toxicity of guanidine.

Objective of Study

The objective of this study was to determine the acute oral toxicity of guanidine hydrochloride in male and female albino Sprague-Dawley rats.

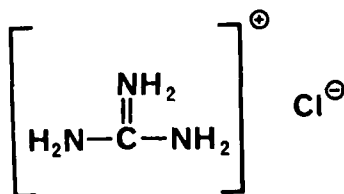
MATERIALS

Test Substance

Chemical name: Guanidine Hydrochloride

Chemical Abstract Service Registry No.: 050-01-1

Chemical structure:



Molecular formula: CH₅N₃HCl

Other test substance information is presented in Appendix A.

Morgan--2

Vehicle

The vehicle for guanidine hydrochloride was sterile water for injection, obtained from Cutter Laboratory, Inc, Emeryville, CA. The expiration date was April 1984.

Animal Data

Seventy-eight male and 73 female Sprague-Dawley rats from Bantin Kingman, Fremont, CA, were used for this study. They were identified individually with ear tags numbered 84D00210 - 84D00214 and 84D00450 - 84D00595 inclusive. Two males and 2 females were selected randomly for quality control necropsy evaluation at receipt. Thirty-seven of the animals were used for an Approximate Lethal Dose (ALD) determination. The animal weights on receipt (19 Jan 84) ranged from 117 to 180 g. Additional animal data appear in Appendix B.

Husbandry

Rats were caged individually in stainless steel wire mesh cages in racks equipped with automatically flushing dump tanks. No bedding was used in any of the cages. The diet, fed ad libitum, consisted of Certified Purina Rodent Chow Diet 5002 (Ralston Purina Company, Checkerboard Square, St. Louis, MO); water was provided by continuous drip from a central line. The animal room temperature was maintained in a range from 23.2°C to 25°C with a relative humidity range of 40 to 53 percent. The photoperiod was 12 hours of light per day.

METHODS

Group Assignment/Acclimation

Study rats were randomized into 5 dose groups of 9 males and 9 females each and vehicle and cage control groups of 5 males and 5 females each. Allocation was accomplished using a computer based stratified, weight biased method. The Beckman TOXSYS Animal Allocation Program was used in conjunction with a Beckman TOXSYS Data Collection Terminal. The animals were acclimated for 11 days before the day of dosing. During this period they were observed daily for signs of illness.

Dosage Levels

The results of the ALD determination suggested that the LD₅₀ was between 500 and 600 mg (base) per kg. Based on these data, test dosages were selected (Table 1).

Table 1
Guanidine Hydrochloride Dosages

<u>Group</u>	<u>Dosage Level</u> mg(base)/kg
1	278
2	360
3	464
4	600
5	775
6 (vehicle control)	0.9 ml water
7 (cage control)	

Compound Preparation

Since the dose of guanidine hydrochloride administered was expressed in terms of the base equivalent, it was necessary to correct for the weight of the hydrochloride moiety. On a molecular weight basis, the hydrochloride salt is 1.63 times the weight of the base equivalent and this factor was used to calculate the quantity of guanidine hydrochloride required to achieve the required dosage levels. Since guanidine hydrochloride is freely soluble in water, all dosing solutions were prepared by mixing the guanidine hydrochloride in an appropriate volume of sterile water for injection immediately before dosing the animals.

Chemical Analysis of Dosing Solution

Guanidine hydrochloride was stable in the vehicle for 4 hours (Appendix A). This was sufficient since dosing was begun as soon as the solutions were prepared and completed within 2 hours. Tests for homogeneity of the test compound in the vehicle were not applicable as the test compound was in solution.

Test Procedures

This study was conducted in accordance with EPA guidelines (1) and LAIR SOP-OP-STX-36, 22 December 82 (2).

The volume of dosing solution each animal received was based upon the desired dose level, and the compound concentration in solution. The dose level was increased by varying the concentration of each solution. Volumes ranged from 0.74 to 1.02 ml in the males and 0.59 to 0.74 in females. The vehicle control group was given 0.9 ml of sterile water. The cage control group was untreated. Dosing was performed using the oral gavage method without animal sedation or anesthesia. Sterile disposable syringes (Becton, Dickenson & Co.,

Rutherford, NJ) fitted with 16 gauge, 3-inch, ball-tipped feeding tubes (Popper & Sons, Inc., New Hyde Park, NY) were utilized. All animals were dosed between 0844 and 1040 hours on 31 January 1984.

Observations

Observations for mortality and signs of acute toxicity were performed daily according to the following procedure: (a) animals were observed undisturbed in their cages, (b) animals were removed from their cages and given a physical examination, and (c) animals were observed after being returned to their cages. On the day of dosing, the animals were checked intermittently throughout the day. Recorded observations were performed 2 and 4 hours after dosing and daily for the remainder of the 2 week test period. A second "walk through" observation was performed daily with only significant observations recorded. Body weights were recorded twice weekly during the course of the study.

Necropsy

Animals that died during the observation period were submitted for a complete gross necropsy. Those which survived the 14-day study period were submitted for necropsy immediately after sacrifice by barbiturate overdose. A complete histopathologic examination was performed on the central nervous system (CNS) of four rats that had neurological symptoms.

Statistical Analysis

Statistical analyses were performed on the study results. The LD₁₀, LD₅₀, and LD₉₀ were derived by probit analysis using the maximum likelihood method, as described by Finney (3). The program, PROBIT, developed for the Data General Computer, Model MV8000, was used to determine the probit curve and lethal dose values.

Duration of Study

Appendix C is a complete listing of historical events.

Changes/Deviations

The dosing phase of this study was accomplished according to the protocol and applicable amendments with three exceptions: (a) randomization into dose groups was redone on 25 January 1984 after reducing the group size from 10 to 9 animals, (b) acclimatization of the animals to the dosing procedure was omitted because previous studies indicated that acclimatization alerted the animals to the process and made them wary and difficult to handle, and (c) the observation 1 hour after dosing was omitted because the dosing procedure took 2 hours to complete. None of these changes was thought to have an effect on the study.

Raw Data and Final Report Storage

A copy of the final report, study protocols, raw data, retired SOPs and an aliquot of the test compound will be retained in the LAIR Archives.

RESULTS

Mortality

Thirty-three (92 %) of the deaths occurred between 4 and 26 hours after dosing. The remaining three animals were found dead on the morning of the second day (between 36 and 47 hours after dosing). During the ALD study, 5 g(base)/kg produced death in all animals within 60 minutes. Table 2 lists the compound related deaths by group and the percent mortality. Appendix D is a tabular presentation of cumulative mortality.

TABLE 2
Compound Related Deaths by Group

GROUP	Dose Level mg(base)/kg	Compound Related Death/ Number in Group	Percent Mortality
MALE			
1	278	0/9	0
2	360	0/9	0
3	464	2/9	22.2
4	600	5/9	55.5
5	775	9/9	100
6	Vehicle Control	0/5	0
7	Cage Control	0/5	0
FEMALE			
1	278	0/8*	0
2	360	2/8*	25
3	464	5/9	55.5
4	600	4/7*	57.1
5	775	9/9	100
6	Vehicle Control	0/5	0
7	Cage Control	0/5	0

* Reduced numbers in groups were due to one or more misdosed animals which were excluded from statistical analysis and removed from the study.

Lethal Dose Calculations

Lethal dose values were calculated by probit analysis and the equation for the probit regression line was: $Y = -30.1 + 12.8 \log X$ for males and $Y = -15.3 + 7.6 \log X$ for females, where X is the dose and Y the corresponding probit value. Misdosed animals were excluded from statistical analysis and eliminated from the study. Lethal doses calculated from the equation for the probit regression line are presented in Table 3. Figures 1 and 2 graphically present the actual data points and the regression line.

TABLE 3
Calculated Lethal Doses (LD) of Guanidine.HCl

Effect Level	Calculated Dose* (mg(base)/kg)	95% Confidence Limits (mg(base)/kg)
MALES		
LD ₁₀	441.8 $\pm$ 36.2	(326.3, 497.9)
LD ₅₀	556.5 $\pm$ 29.7	(492.3, 630.9)
LD ₉₀	701.1 $\pm$ 58.5	(621.1, 956.0)
FEMALES		
LD ₁₀	321.4 $\pm$ 39.3	(209.1, 383.9)
LD ₅₀	474.6 $\pm$ 35.3	(402.0, 562.7)
LD ₉₀	700.8 $\pm$ 87.7	(584.8, 1089.9)

* Calculated dose $\pm$ standard error.

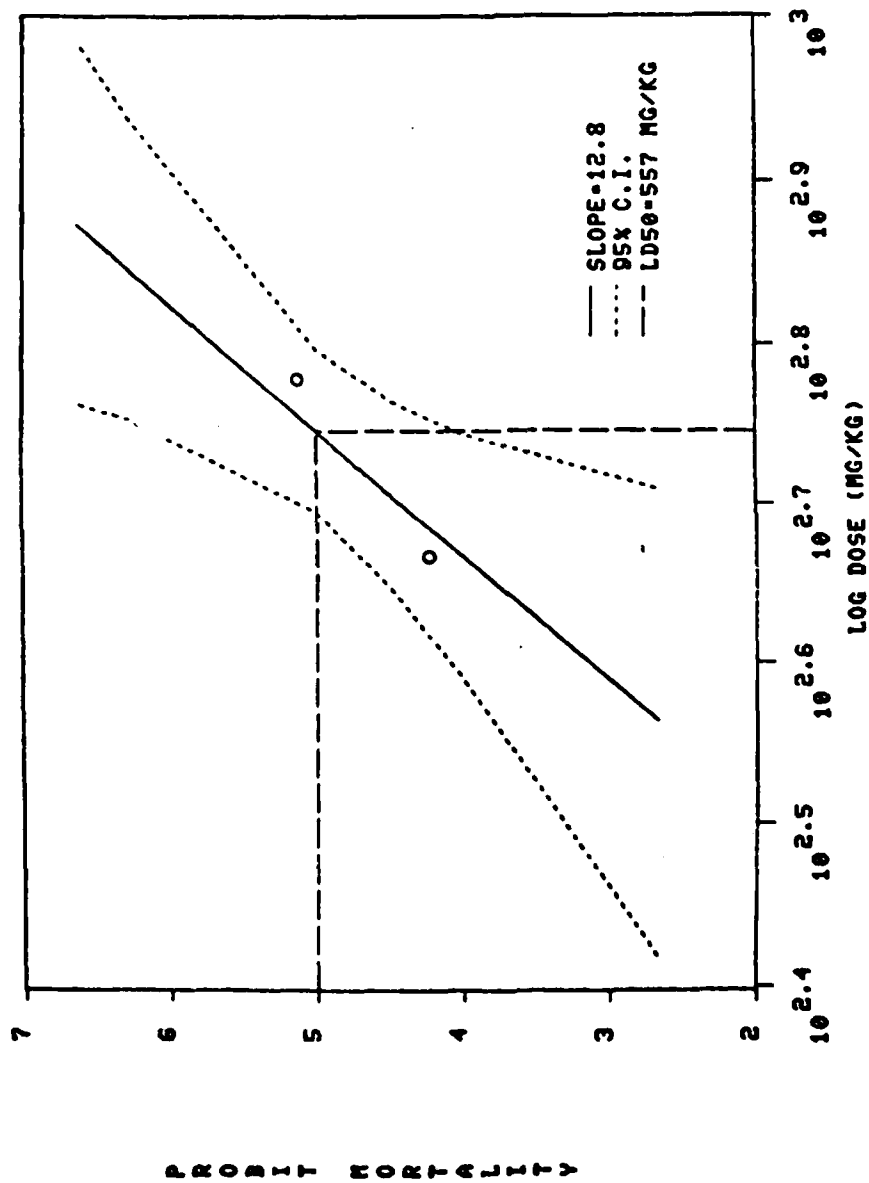


Figure 1. Dose Response Curve, Guanidine-HCl in Male SD Rats

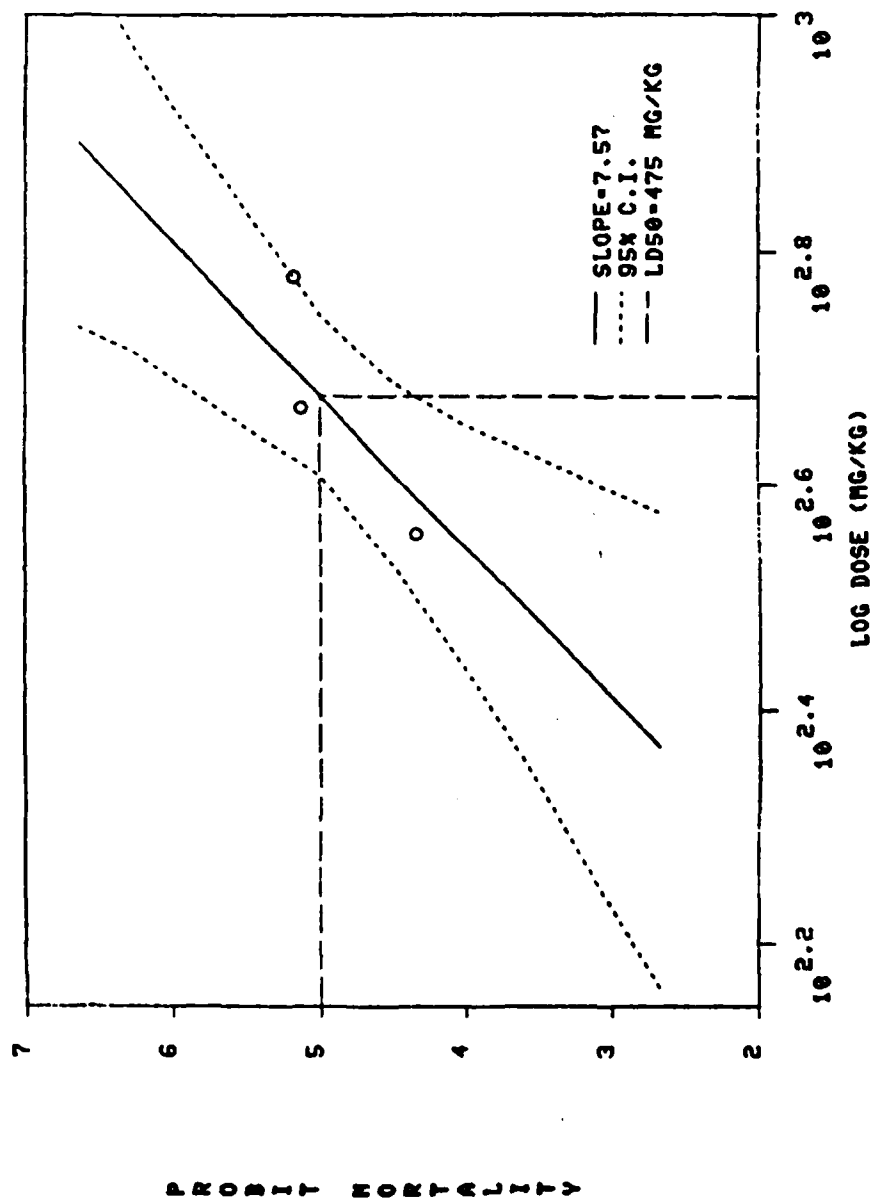


Figure 2. Dose Response Curve, Guanidine-HCl in Female SD Rats

Clinical Observations

The two most frequently observed categories of clinical signs were central nervous system-neuromuscular (CNS-NM) disturbances (80 of 86 animals dosed) and gastrointestinal (GI) tract symptoms (53 of 86). These clinical signs were recorded at each dose level. Severity, but not duration, exhibited a dose-response relationship. On the initial observation (2 hours after dosing), the only clinical signs noted were occasional hyperactivity or increased irritability. After 4 hours, most animals had developed clinical signs. All symptoms had disappeared 7 days after dosing, except for occasional signs of increased irritability.

GI tract symptoms were present in all dose groups but were more prevalent and severe at the higher doses. Hunched posture, increased salivation with some staining of the muzzle, and diarrhea were the most commonly noted GI symptoms.

CNS-NM symptoms were present in all dose groups. The symptoms appeared to exhibit a more complex dose-response pattern than the GI tract symptoms. Animals that received doses of 464 mg(base)/kg or less exhibited increased startle reflex, hyperactivity, and disorientation. These signs had resolved within one week of dosing. Those animals receiving the two higher dose levels (600 and 775 mg(base)/kg) exhibited an increased startle reflex, hyperactivity (as indicated by random jumping, tremors, and/or twitching), and depressed grasping and righting reflexes within 4 hours of dosing. Most of these animals died within 24 hours; however, one of the four male survivors in the 600 mg/kg group was still listless with depressed righting and grasping reflexes one week after dosing.

The term "disorientation" described a behavior pattern in which the animals appeared dazed and confused about external stimuli. "Disoriented" animals were observed sitting in their cages with expressionless stares and exhibited little or no response to noise, movement of their cages, or handling. Their movements were hesitant and appeared random except upon perceiving a threat which elicited grossly exaggerated escape movements. Repetitive, stereotypical behavior such as a constant side-to-side movement of the head, simulated eating movements/motions, or a disjointed, non-productive scratching motion, was observed in several animals.

Presence of dirty or rough hair coats (48 of 86) and increased respiratory rate or irregular respiratory patterns (36 of 86) were observed in some animals. Tables 4 and 5 contain a summary of clinical observations. Appendix E contains individual animal histories.

Weight gains of survivors were not significantly affected by dosing. Table 6 presents the mean body weights by groups. Appendix F contains individual weight tables.

TABLE 4
Incidence Summary for Clinical Observations in Male Rats Administered
Guanidine Hydrochloride

Clinical Signs	Group	1	2	3	4	5	6	7
	Dose (mg(base)/kg)	278	360	464	600	775	Vehicle Control	Cage Control
	(n=)	9	9	9	9	9	5	5
Respiratory *		4	4	7	2	2	1	
Gastrointestinal †		6	6	4	7	9		
Neuromuscular †		6	8	9	9	8		
Rough Coat		6	6	8	8	6	1	2
Discharge, red nasal and/or oral		6	5	7	6	4	3	5
Irritable		5	4	6	8	3	3	2

* Includes changes in rate, depth and regularity.

† Includes increased salivation, diarrhea, perianal staining and hunched posture.

‡ Includes disorientation, increased in startle reflex, hyperactivity, jumping behavior, tremors/twitching and depression of grasping and righting reflexes.

TABLE 5
Incidence Summary for Clinical Observations in Female Rats Administered
Guanidine Hydrochloride

Clinical Signs	Group	1	2	3	4	5	6	7
	Dose (mg(base)/kg)	278	360	464	600	775	Vehicle Control	Cage Control
	(n=)	8	8	9	7	9	5	5
Respiratory *		4	5	3	3	2		
Gastrointestinal †		2	3	7	4	5	1	
Neuromuscular †		8	7	9	7	8	1	2
Rough Coat		4	2	4	3	1		1
Discharge, red nasal and/or oral		5	7	5	5	6	3	2
Irritable		6	6	2	2	4	2	2

* Includes changes in rate, depth and regularity.

† Includes increased salivation, diarrhea, perianal staining and hunched posture.

† Includes disorientation, increased in startle reflex, hyperactivity, jumping behavior, tremors/twitching and depression of grasping and righting reflexes.

TABLE 6
Mean Body Weights in Grams $\pm$ S.E. (n)

Dose mg(base)/kg	Receipt	Dosing Day	Day 7	Day 14	Weight Change*
MALE					
278	154.6 $\pm$ 5.54 (9)	225.0 $\pm$ 5.46 (9)	305.0 $\pm$ 5.51 (9)	349.7 $\pm$ 6.07 (9)	123.9 $\pm$ 5.71 (9)
360	163.9 $\pm$ 3.99 (9)	226.6 $\pm$ 3.16 (9)	301.8 $\pm$ 5.90 (9)	340.2 $\pm$ 10.20 (9)	113.7 $\pm$ 8.35 (9)
464	147.7 $\pm$ 6.95 (9)	219.0 $\pm$ 5.21 (9)	296.7 $\pm$ 8.98 (7)	344.3 $\pm$ 8.75 (7)	128.0 $\pm$ 8.89 (7)
600	152.4 $\pm$ 5.92 (9)	218.9 $\pm$ 4.92 (9)	289.3 $\pm$ 17.20 (4)	332.3 $\pm$ 14.53 (4)	107.3 $\pm$ 6.17 (4)
775	151.0 $\pm$ 5.70 (9)	215.6 $\pm$ 5.79 (9)	—	—	—
Vehicle Control	161.0 $\pm$ 4.56 (5)	225.0 $\pm$ 2.43 (5)	304.8 $\pm$ 5.94 (5)	347.2 $\pm$ 6.38 (5)	122.2 $\pm$ 5.84 (5)
Cage Control	150.2 $\pm$ 6.81 (5)	221.4 $\pm$ 4.77 (5)	306.4 $\pm$ 6.71 (5)	342.2 $\pm$ 11.23 (5)	120.8 $\pm$ 8.04 (5)
FEMALE					
278	136.9 $\pm$ 3.36 (9)	168.8 $\pm$ 3.42 (9)	211.0 $\pm$ 4.49 (8)	228.0 $\pm$ 4.84 (8)	61.1 $\pm$ 3.48 (8)
360	137.2 $\pm$ 3.56 (9)	164.3 $\pm$ 3.41 (9)	214.3 $\pm$ 5.80 (6)	235.2 $\pm$ 8.85 (6)	69.5 $\pm$ 6.37 (6)
464	138.4 $\pm$ 3.58 (9)	166.1 $\pm$ 3.99 (9)	218.5 $\pm$ 6.51 (4)	233.8 $\pm$ 4.11 (4)	56.5 $\pm$ 9.92 (4)
600	138.6 $\pm$ 3.27 (9)	170.4 $\pm$ 5.25 (9)	206.0 $\pm$ 6.81 (3)	222.3 $\pm$ 12.7 (3)	59.0 $\pm$ 5.51 (3)
775	140.4 $\pm$ 3.23 (9)	171.3 $\pm$ 4.00 (9)	—	—	—
Vehicle Control	138.4 $\pm$ 3.27 (5)	164.2 $\pm$ 3.77 (5)	206.6 $\pm$ 5.27 (5)	221.6 $\pm$ 6.34 (5)	57.4 $\pm$ 3.89 (5)
Cage Control	146.6 $\pm$ 5.03 (5)	172.2 $\pm$ 2.97 (5)	216.2 $\pm$ 3.15 (5)	231.0 $\pm$ 4.51 (5)	58.8 $\pm$ 2.97 (5)

*Dosing to termination

Gross Pathological Observations

The mortalities which occurred after dosing appear to have been caused by the test compound. Test-related lesions were found only in the digestive system. No lesions were found in the CNS during gross or light microscopic examination. The veterinary pathologist's report appears in Appendix G.

DISCUSSION

The calculated LD_{50} and standard error (S.E.) for guanidine hydrochloride was 556.5 ± 29.7 mg(base)/kg in male Sprague-Dawley rats and 474.6 ± 35.3 mg(base)/kg in female Sprague-Dawley rats. These LD_{50} values are within the slightly toxic and moderately toxic ranges, respectively (4).

Clinical signs indicated guanidine hydrochloride affected both the GI tract and the CNS-NM. Symptoms referable to the GI tract included increased salivation, hunched posture and diarrhea; the last two are indicative of irritation to the lining of the GI tract. Necropsy of animals that died as a result of the test compound confirmed that guanidine hydrochloride produced GI irritation. Marked erythema and edema of the gastric mucosa and submucosa were observed. This irritation appeared confined to the glandular portion of the stomach.

Guanidine hydrochloride is a standard chemical reagent for denaturing protein (5). The marked GI irritation observed at necropsy may be attributed to this action of guanidine hydrochloride to denature protein.

Guanidine hydrochloride also appeared to have an effect on the CNS-NM as indicated by the clinical signs data. Toxic signs included disorientation, increases in the startle reflex, hyperactivity, jumping behavior, presence of tremors/twitching and depression of grasping and righting reflexes. Otsuka and Endo (6) reported that guanidine hydrochloride increased the amplitude of the neuromuscular end-plate potential by increasing the quantity of acetylcholine (ACh) released from the nerve endings by a single nerve impulse. Because of its ability to augment neuromuscular transmissions, guanidine hydrochloride has been used to treat myasthenia gravis (7). More recently, guanidine hydrochloride has been used in the treatment of botulism (8). Since botulism toxin blocks the release of ACh at the neuromuscular junction, the therapeutic effect of guanidine hydrochloride is attributed to its facilitating the release of ACh from remaining efflux sites not blocked by the toxin (8). This proposed mechanism of action is consistent with the listing of guanidine hydrochloride as a striated muscle stimulant in the Merck Index (9) and is also consistent with the clinical signs reported in this study.

CONCLUSION

Guanidine hydrochloride is a "slightly toxic" to "moderately toxic" compound that produce irritant effects on the GI tract and CNS-NM. Calculated LD₅₀ $\pm$ S.E. values were 556.5 $\pm$ 29.7 mg(base)/kg in male Sprague-Dawley rats and 474.6 $\pm$ 35.3 mg(base)/kg in female Sprague-Dawley rats.

RECOMMENDATION

Guanidine hydrochloride should undergo additional toxicity testing in accordance with the Toxic Substances Control Act.

REFERENCES

1. Environmental Protection Agency. Office of Pesticides and Toxic Substances, Office of Toxic Substances (TS-792). Acute exposure, oral toxicity. In: Health effects test guidelines. Washington, DC: Environmental Protection Agency, August 1982; EPA 560/6-82-001.
2. Acute oral toxicity study (ALD and LD50). LAIR Standard Operating Procedure OP-STX-36, Letterman Army Institute of Research, Presidio of San Francisco, CA. 22 December 1982.
3. Finney DJ. Probit analysis. 3rd ed. Cambridge: Cambridge University Press, 1971:20-80.
4. Doull J, Klassen CD, Amdur MO, eds. Casarett and Doull's toxicology. 2nd ed. New York: Macmillan Publishing Co, Inc, 1980:12
5. Metzler DE. Biochemistry: The chemical reactions of living cells. New York: Academic Press, Inc, 1977:78.
6. Otsuka M, Endo M. The effect of guanidine on neuromuscular transmission. J Pharmacol Exp Ther 1960;128:273-282.
7. Cherington M, Ryan DW. Treatment of botulism with guanidine: early neurophysiologic studies. N Engl J Med 1970;282:195-197.
8. Scaer RC, Tooker J, Cherington M. Effect of guanidine on the neuromuscular block of botulism. Neurology 1969;19:1107-1110.
9. Windholz M ed. Merck Index. 10th ed. Rahway, NJ: Merck and Co, 1983:657.

	Page
Appendix A, Chemical Data.....	19
Appendix B, Animal Data.....	21
Appendix C, Historical Listing of Study Events.....	23
Appendix D, Cumulative Mortality Data.....	25
Appendix E, Individual Animal Histories.....	27
Appendix F, Individual Body Weights.....	83
Appendix G, Pathology Report.....	95

APPENDICES

Morgan--18

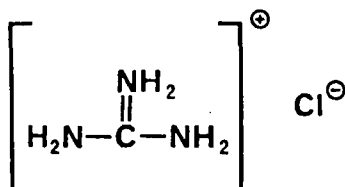
CHEMICAL DATA

Chemical Name: Guanidine Hydrochloride

Alternate Chemical Name: Aminomethanamidine hydrochloride,
Carbamamidine hydrochloride,
Carbamidine hydrochloride,
Aminoformamidine hydrochloride,
Iminourea hydrochloride

Chemical Abstracts Service Registry No.: 50-01-1

Chemical structure:



Molecular formula: CH_6ClN_3

Molecular weight: 95.5

Physical state: White powder

Melting point: 182-184°C (184-185°C*)

Analytical data/purity: Water content 0.1% by Karl Fischer analysis.*
The material is at least 98% pure and chromatographs as one spot by thin layer chromatography.†
Elemental analysis. Calculated for CH_6ClN_3 Cl, 37.1. Found: Cl, 36.6.† An IR spectrum was obtained upon receipt of the compound.
IR(KBr): 3400, 2750, 1650, 1535, 1050 (broad) cm^{-1} .
A comparison of this spectrum to the Sadtler standard spectrum confirmed the identity of the material.‡

Source: Sigma Chemical Co.
St. Louis, MO

Lot number: 103F-5623

* Zygmunt R., Analytical data sheet for guanidine hydrochloride, lot number 103F-5623. Sigma Chemical Co., St. Louis. 16 Feb 84.

† Sigma Chemical Company, St. Louis, MO. Becky Goodloe, PhD, personal communication, 5 March 1985.

‡ Sadtler Research Laboratory, Inc., Sadtler standard spectra, Philadelphia: The Sadtler Research Laboratory, Inc., 1962: Infrared Spectrogram #8676.

Stability in vehicle: A preliminary study was conducted to determine the stability of guanidine hydrochloride in the vehicle, sterile water for injection. A solution of guanidine hydrochloride (18.825 ug/ml water) was assayed after preparation and 4 hours later by using the Voges-Proskauer Method (Micklus MJ, Stein IM. The colorimetric determination of mono-and disubstituted guanidines. Anal Biochem 1973;54:545-553). This method is specific for unsubstituted and monosubstituted guanidines and yields a colored derivative which is monitored spectrophotometrically. Three samples were analyzed for each time point and the results were as follows:

Absorbance Value <u>(1st Assay)</u>	Absorbance Value <u>(2nd Assay)</u>
2.190	2.053
2.165	2.190
2.160	2.191
$\bar{x} = 2.172$	$\bar{x} = 2.145$

The values for the two assays were within 1.5 percent of each other which is within the error for repeated sampling using this test. This indicates that the compound is stable in aqueous solution for at least 4 hours.

ANIMAL DATA

Species: Rattus norvegicus

Strain: Sprague-Dawley

Source: Bantin Kingman
Fremont, CA

Sex: Male and female.

Date of birth: Male: 12 December 1983
Female: 5 December 1983

Method of randomization: Weight bias, stratified animal allocation
(RANDOM Computer Program, SOP OP-ISG-21)

Animals in each group: 9 male and female animals
5 each for control groups

Condition of animals at start of study: Normal

Body weight range at dosing: 150-255 g

Identification procedures: Ear tagging procedure (SOP OP-ARG-1), tag
numbers between 84D00450 to 84D00595
inclusive. Animals numbered 84D00210-
84D00214 inclusive were added and used for
ALD dosing.

Pretest conditioning: Quarantine/acclimation 19 January-30 January
1984

Justification: The laboratory rat has proven to be a sensitive and
reliable system for lethal dose determination.

Historical Listing of Study Events

<u>Date</u>	<u>Event</u>
19 Jan 84	Received 73 male and 73 female Sprague-Dawley rats. Rats were checked for physical condition, sexed, weighed, ear-tagged, and individually caged.
20 Jan 84	Four rats (2 male and 2 female) were submitted for necropsy quality control.
20-30 Jan 84	Animals were observed daily.
24,30 Jan 84	Animals weighed.
24,25 Jan 84	Animals were randomized into dose groups.
30 Jan 84	Food removed from the animals at 1600 hours.
25,26,27 Jan 84	ALD animals weighed, dosed, and observed.
31 Jan 84	Animals weighed, dosed, and observed at 2 and 4 hours after dosing.
1-14 Feb 84	All animals were observed daily in a.m. and p.m.
3,7,10 Feb 84	All animals weighed.
13 Feb 84	Food removed from the animals at 1600 hours.
14 Feb 84	All surviving animals were weighed, sacrificed, and submitted for necropsy.

Cumulative Mortality Data (Deaths/Group)

(9 Animals Per Group)

Dose Level mg(base)/kg	Time After Dosing														
	Hours			Days											
	2	4	8	1	2	3	4	5	6	7	8	9	10	11	12 12 14
MALES															
278	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
464	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2
600	0	0	2	3	5	5	5	5	5	5	5	5	5	5	5
775	0	1	5	9	-	-	-	-	-	-	-	-	-	-	-
FEMALES															
278*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
360*	0	1	1	2	2	2	2	2	2	2	2	2	2	2	2
464	0	1	2	4	5	5	5	5	5	5	5	5	5	5	5
600†	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4
775	0	6	7	9	-	-	-	-	-	-	-	-	-	-	-
Total	0	13	21	33	36										36

*8 Animals per group

†7 Animals per group

DATE	TIME	DESCRIPTION	WEIGHT GROSS	CLINICAL OBSERVATIONS
2/14/84	8:25:04	0005130	369.0	NORMAL
2/17/84	8:05:10	0005130		NORMAL
2/17/84	14:06:50	0006337		NORMAL
2/17/84	8:11:44	0004225	447.0	NORMAL
2/17/84	8:35:40	0005130		NORMAL
2/18/84	8:41:12	0004232		NORMAL
2/17/84	8:14:12	0035748		NORMAL
2/17/84	8:25:10	0005130	327.0	NORMAL
2/18/84	8:36:40	0004232		NORMAL
2/18/84	13:24:40	0005237		NORMAL
2/18/84	16:34:54	0005237		NORMAL
2/18/84	18:44:20	0005130		NORMAL
2/18/84	8:37:10	0005130	240.0	NORMAL
2/18/84	8:58:40	0005130		NORMAL
2/19/84	14:26:20	0004406		SLIGHT NEW MOSE WATER
2/19/84	15:31:40	0005743		SLIGHT NEW MOSE WATER
2/19/84	15:10:54	0005743		NORMAL
2/19/84	16:50:30	0005130	248.0	* NO OBSERVATIONS RECORD
2/19/84	8:52:20	0005743	274.0	* NO OBSERVATIONS RECORD
2/20/84	10:52:24	0005130	246.0	* NO OBSERVATIONS RECORD

LAB ID: 00000505 SPECIES: D SEX: MALE GROUPS: C. CONTROL
 BIRTH DATE: 12/12/83 INITIAL HEIGHT: 170.0 CM
 THIS TUMOR HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

DATE	TIME	OPERATOR	FLIGHT AGAINST ALL VESSEL OBSERVATIONS	US OBSERVATIONS
2/13/74	0127:10	0045130	367.0	NORMAL
2/13/74	0045130			SLIGHT MEDIUM LOAT
2/13/74	0104:06	0050337		NORMAL
2/13/74	0111:02	0049225		NORMAL
2/13/74	0157:50	0045130	337.0	NORMAL
2/13/74	0143:20	0042252		NORMAL
2/13/74	0128:10	0031743		NORMAL
2/13/74	0128:10	0045130	315.0	NORMAL
2/13/74	0159:10	0042252		NORMAL
2/13/74	0152:08	0051257		NORMAL
2/13/74	0150:00	0052257		NORMAL
2/13/74	0150:00	0051130		NORMAL
2/13/74	0142:02	0045130	270.0	SLIGHT NEW MODS STAIN
2/13/74	0105:34	0045130		NORMAL
2/13/74	0105:30	0044006		NORMAL
2/13/74	0145:03	0053745		NORMAL
2/13/74	0115:50	0053745		NORMAL
2/13/74	0151:00	0045130	240.0	NO OBSERVATIONS RECORD
2/13/74	0155:54	0053745	246.0	NO OBSERVATIONS RECORD
2/13/74	0152:54	0052130	237.0	NO OBSERVATIONS RECORD
2/13/74	0152:54	0052130		NO OBSERVATIONS RECORD

ANIMAL ID: 00000509 SPECIES: H SEX: MALE GROUP: C. L. 001000
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 105.0 GRAMS QUANTITATIVE ID: 0000000004
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT	REMARKS	INITIAL OBSERVATIONS
2/10/84	05:48:20	0005130	414.0	NORMAL
2/11/84	05:48:20	0005130		NORMAL
2/12/84	14:12:42	0005357		NORMAL
2/11/84	14:22:50	0005265		NORMAL
2/10/84	05:59:00	0005130	247.0	NORMAL
2/04/84	05:44:40	0005222		NORMAL
2/04/84	05:33:10	0035743		NORMAL
2/07/84	05:29:50	0005130	240.0	NORMAL
2/06/84	05:01:40	0005252		NORMAL
2/05/84	15:55:22	0055257		NORMAL
2/05/84	10:59:20	0055257		NORMAL
2/05/84	10:51:34	0005130	252.0	NORMAL
2/05/84	05:44:40	0005130		NORMAL
2/02/84	05:07:50	0005130		NORMAL
2/01/84	11:04:20	0005400		NORMAL
1/31/84	14:26:00	0035743		NORMAL
1/31/84	11:15:50	0055743	210.0	* NO OBSERVATIONS RECORDED.
1/31/84	10:52:10	0005130	237.0	* NO OBSERVATIONS RECORDED.
1/30/84	05:26:22	0035743		* NO OBSERVATIONS RECORDED.
1/27/84	10:50:20	0005130	212.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000540 SPECIES: H SEX: FEMALE GROUP: C. L. 001000
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 105.0 GRAMS QUANTITATIVE ID: 0000000004
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT	REMARKS	INITIAL OBSERVATIONS
2/10/84	05:57:20	0005130	214.0	NORMAL
2/11/84	05:17:30	0005130		NORMAL
2/12/84	14:15:12	0005357		NORMAL
2/11/84	05:50:04	0005265		NORMAL
2/10/84	05:44:40	0005130	206.0	NORMAL
2/09/84	05:22:14	0005232		NORMAL
2/08/84	05:30:50	0035743		NORMAL
2/07/84	05:40:20	0005130	206.0	NORMAL
2/06/84	05:59:30	0005232		NORMAL
2/05/84	13:27:10	0055257		NORMAL
2/05/84	10:42:20	0005130		NORMAL
2/04/84	10:59:20	0005130	190.0	NORMAL
2/03/84	05:03:00	0005130		NORMAL
2/02/84	05:41:14	0005400		NORMAL
2/01/84	14:10:20	0005743		NORMAL
1/31/84	12:01:14	0035743		NORMAL
1/31/84	11:58:20	0035743	101.0	* NO OBSERVATIONS RECORDED.
1/31/84	10:51:52	0005130	194.0	* NO OBSERVATIONS RECORDED.
1/30/84	05:10:00	0035743	174.0	* NO OBSERVATIONS RECORDED.
1/27/84	10:47:20	0005130		

ANIMAL ID: 00000573 SPECIES: D SEX: FEMALE GROUP: C. LOUINOL
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 172.0 GRAMS QUARANTINE ID: 004000573
 THIS ANIMAL WAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT	OPERATION	CLINICAL OBSERVATIONS
2/10/84	0:37:50	0043150	250.0	NORMAL
2/13/84	0:18:00	0043150		NORMAL
2/12/84	1:15:10	0000357		NORMAL
2/11/84	9:30:20	004225		NORMAL
2/10/84	0:49:10	0043150	229.0	NORMAL
2/09/84	0:52:54	0042252		NORMAL
2/08/84	0:51:10	0035743		NORMAL
2/07/84	0:41:04	0043150	221.0	NORMAL
2/06/84	9:00:10	0042252		NORMAL
2/05/84	1:32:20	0049006		SLIGHT RED NOSE STAIN
2/05/84	10:42:32	0049006		SLIGHT RED NOSE STAIN
2/04/84	10:59:30	0043150		SLIGHT INCREASED STAPLE WFLX, SLIGHT RED NOSE STAIN
2/04/84	9:03:00	0043150	204.0	SLIGHT HYPERACTIVE, SLIGHT INCREASED STAPLE WFLX, SLIGHT RED NOSE STAIN
2/02/84	9:41:40	0043150		SLIGHT RED NOSE MATERIAL
2/01/84	12:11:14	0049006		MODERATE IRRITABLE, SLIGHT INACTIVE, SLIGHT RED NOSE STAIN
1/31/84	13:01:52	0035743		NORMAL
1/31/84	11:30:33	0035743		NORMAL
1/31/84	10:30:42	0043150	177.0	* NO OBSERVATIONS RECORDED.
1/30/84	9:10:20	0035743	199.0	* NO OBSERVATIONS RECORDED.
1/27/84	10:47:52	0043150	183.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000573 SPECIES: D SEX: FEMALE GROUP: C. LOUINOL
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 172.0 GRAMS QUARANTINE ID: 004000573
 THIS ANIMAL WAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT	OPERATION	CLINICAL OBSERVATIONS
2/13/84	0:49:12	0043150	233.0	NORMAL
2/13/84	0:22:00	0043150		NORMAL
2/12/84	14:16:30	0000357		NORMAL
2/11/84	9:35:30	004225		NORMAL
2/10/84	0:57:22	0043150	224.0	NORMAL
2/09/84	0:56:50	0042252		NORMAL
2/08/84	0:55:30	0035743		NORMAL
2/07/84	0:46:50	0043150	223.0	NORMAL
2/06/84	9:08:10	0042252		NORMAL
2/05/84	13:28:30	0052257		NORMAL
2/05/84	10:43:50	0052257		NORMAL
2/04/84	11:05:00	0043150		NORMAL
2/03/84	9:17:20	0043150	190.0	SLIGHT HYPERACTIVE, SLIGHT EXOPHTHALMOS
2/02/84	9:27:24	0043150		SLIGHT RED NOSE MATERIAL
2/01/84	12:23:44	0049006		SLIGHT IRRITABLE
1/31/84	14:51:24	0035743		MARKED IRRITABLE
1/31/84	12:04:50	0035743		NORMAL
1/31/84	10:35:50	0043150	180.0	* NO OBSERVATIONS RECORDED.
1/30/84	9:41:34	0035743	196.0	* NO OBSERVATIONS RECORDED.
1/27/84	11:02:02	0043150	187.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000594 SPECIES: D. SCAL: FEMALE GROUP: C. CONTROL
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 106.0 GRAMS QUANTITATIVE ID: 00000594
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	OPERATOR	FLIGHT	REMARKS	LABORATORY OBSERVATIONS
2/18/84	0533:04	0005130	238.0	NORMAL	
2/13/84	0525:18	0005130		NORMAL	
2/12/84	1417:20	0005337		NORMAL	
2/11/84	0538:50	0049225		NORMAL	
2/10/84	0501:00	0045150	225.0	NORMAL	
2/09/84	0539:24	0042232		NORMAL	
2/08/84	0538:00	0055743		NORMAL	
2/07/84	0538:40	0045130	219.0	NORMAL	
2/06/84	0513:30	0042232		NORMAL	
2/05/84	13:29:22	0053237		NORMAL	
2/05/84	10:44:54	0053237		NORMAL	
2/04/84	11:05:24	0045130		SLIGHT IMPROVED STABLE REFLEX	
2/03/84	0524:52	0045130	205.0	NORMAL	
2/02/84	0533:34	0045130		NORMAL	
2/01/84	12:52:44	0049406		NORMAL	
1/31/84	14:53:02	0035743		SLIGHT RED NOSE MATERIAL	
1/31/84	14:13:50	0035743	171.0	* NO OBSERVATIONS RECORDED.	
1/31/84	10:59:54	0045130	198.0	* NO OBSERVATIONS RECORDED.	
1/30/84	0526:20	0035743	185.0	* NO OBSERVATIONS RECORDED.	
1/27/84	11:04:20	0045130			

ANIMAL ID: 00000594 SPECIES: D. SCAL: FEMALE GROUP: C. CONTROL
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 106.0 GRAMS QUANTITATIVE ID: 00000594
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	OPERATOR	FLIGHT	REMARKS	LABORATORY OBSERVATIONS
2/14/84	0555:10	0045130	231.0	NORMAL	
2/13/84	0524:30	0045130		NORMAL	
2/12/84	1417:50	0005337		NORMAL	
2/11/84	0540:40	0049225		NORMAL	
2/10/84	0502:50	0045130	213.0	NORMAL	
2/09/84	0500:55	0042232		NORMAL	
2/08/84	0539:34	0035743		NORMAL	
2/07/84	11:20:50	0045130	212.0	NORMAL	
2/06/84	0516:24	0042232		NORMAL	
2/05/84	13:50:04	0053237		NORMAL	
2/04/84	10:45:24	0053237		NORMAL	
2/03/84	11:07:20	0045130	201.0	NORMAL	
2/02/84	0530:20	0045130		SLIGHT IRMITABLE	
2/01/84	0537:02	0045130		SLIGHT MOUTH COAT, SLIGHT IMITABLE	
2/01/84	12:54:20	0049406		NORMAL	
1/31/84	12:21:50	0035743		NORMAL	
1/31/84	10:40:24	0045130	170.0	* NO OBSERVATIONS RECORDED.	
1/30/84	0529:44	0035743	165.0	* NO OBSERVATIONS RECORDED.	
1/27/84	11:11:24	0045130	179.0	* NO OBSERVATIONS RECORDED.	

ANIMAL ID: 04000000 SPECIES: 0 SEX: MALE GROUP: V. LOUTHOL
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 205.0 GRAMS QUARANTINE ID: 064000400
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE TIME FLIGHT OBSERVATION REMARKS CLINICAL OBSERVATIONS

2/14/84	08:04:30	0043130	342.0	NORMAL	
2/13/84	15:57:54	0043130		NORMAL	
2/12/84	14:01:04	0043130		NORMAL	
2/11/84	01:07:10	0043225		NORMAL	
2/10/84	02:23:24	0043130	314.0	NORMAL	
2/09/84	03:54:06	0042232		NORMAL	
2/08/84	03:04:56	0033743		NORMAL	
2/07/84	02:10:08	0043130	293.0	NORMAL	
2/06/84	02:20:04	0042232		NORMAL	
2/05/84	13:22:14	0055257		NORMAL	
2/04/84	10:58:14	0055257		NORMAL	
2/04/84	10:59:50	0043130		NORMAL	
2/03/84	08:12:50	0043130	266.0	NORMAL	
2/02/84	03:47:20	0043130		NORMAL	
2/01/84	02:14:28	0033743		NORMAL	
1/31/84	13:06:20	0035743		NORMAL	
1/31/84	10:32:24	0035743		NORMAL	
1/31/84	10:25:54	0043130	225.0	* NO OBSERVATIONS RECORDED.	
1/30/84	03:45:36	0033743	254.0	* NO OBSERVATIONS RECORDED.	
1/27/84	10:00:20	0043130	238.0	* NO OBSERVATIONS RECORDED.	

ANIMAL ID: 04000000 SPECIES: 0 SEX: MALE GROUP: V. LOUTHOL
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 205.0 GRAMS QUARANTINE ID: 064000404
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE TIME FLIGHT OBSERVATION REMARKS CLINICAL OBSERVATIONS

2/13/84	03:16:02	0043130	359.0	NORMAL	
2/13/84	03:00:00	0043130		NORMAL	
2/12/84	14:03:40	0003337		NORMAL	
2/11/84	02:11:16	0043225		NORMAL	
2/10/84	03:28:10	0043130	336.0	NORMAL	
2/09/84	03:37:00	0042232		NORMAL	
2/08/84	03:13:44	0033743		NORMAL	
2/07/84	03:15:10	0043130	319.0	NORMAL	
2/06/84	03:26:26	0042232		NORMAL	
2/05/84	13:23:06	0055257		NORMAL	
2/05/84	10:55:30	0055257		NORMAL	
2/04/84	10:03:30	0043130	276.0	SLIGHT IRRITABLE	
2/03/84	03:22:14	0043130		NORMAL	
2/02/84	03:56:44	0043130		NORMAL	
2/01/84	03:25:12	0033743		NORMAL	
1/31/84	13:12:10	0033743		SLIGHT RED NOSE MATERIAL	
1/31/84	10:58:54	0033743		NORMAL	
1/31/84	10:05:20	0043130	265.0	* NO OBSERVATIONS RECORDED.	
1/30/84	03:44:28	0033743	262.0	* NO OBSERVATIONS RECORDED.	
1/27/84	10:15:50	0043130	232.0	* NO OBSERVATIONS RECORDED.	

ANIMAL ID: 00400475 SPECIES: D SEX: MLE GROUP: V. CONTROL
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 200.0 GRAMS QUARANTINE ID: 084000475
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT	DEVIATION	REMARKS	CLINICAL OBSERVATIONS
2/14/84	05:17:20	0045130	325.0	NORMAL	
2/13/84	05:00:40	0045130		NORMAL	
2/12/84	14:03:50	0000337		NORMAL	
2/11/84	05:11:40	0049265		NORMAL	
2/10/84	05:24:50	0045130	307.0	NORMAL	
2/09/84	05:37:10	0042232		NORMAL	
2/08/84	05:14:08	0035743		NORMAL	
2/07/84	05:15:52	0045130	293.0	NORMAL	
2/06/84	05:27:14	0042232		NORMAL	
2/05/84	13:23:10	0053237		NORMAL	
2/04/84	10:55:40	0053237		NORMAL	
2/03/84	10:43:40	0045130		NORMAL	
2/02/84	05:23:35	0045130	261.0	NORMAL	
2/01/84	05:27:22	0045130		NORMAL	
2/01/84	05:25:40	0035743		NORMAL	
1/31/84	13:13:04	0035743		NORMAL	
1/31/84	10:59:20	0035743		NORMAL	
1/31/84	10:26:00	0045130	223.0	* NO OBSERVATIONS RECORDED.	
1/30/84	05:40:52	0035743	231.0	* NO OBSERVATIONS RECORDED.	
1/27/84	10:18:14	0045130	229.0	* NO OBSERVATIONS RECORDED.	

A-J-AL ID: 00000459 SPECIES: D SEX: MLE GROUP: V. CONTROL
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 211.0 GRAMS QUARANTINE ID: 084000484
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT	DEVIATION	REMARKS	CLINICAL OBSERVATIONS
2/14/84	05:21:20	0045130	359.0	NORMAL	
2/13/84	05:02:40	0045130		NORMAL	
2/12/84	14:06:02	0000337		NORMAL	
2/11/84	05:16:54	0049265		NORMAL	
2/10/84	05:32:10	0045130	337.0	NORMAL	
2/09/84	05:39:10	0042232		NORMAL	
2/08/84	05:16:52	0035743		NORMAL	
2/07/84	05:19:12	0045130	320.0	NORMAL	
2/06/84	05:31:42	0042232		NORMAL	
2/05/84	13:23:55	0053237		NORMAL	
2/04/84	10:55:53	0053237		NORMAL	
2/03/84	10:46:20	0045130		NORMAL	
2/02/84	05:30:12	0045130	265.0	NORMAL	
2/01/84	05:00:42	0045130		NORMAL	
2/01/84	05:20:20	0044406		NORMAL	
1/31/84	13:21:20	0035743		NORMAL	
1/31/84	11:05:12	0035743		NORMAL	
1/31/84	10:24:00	0045130	255.0	* NO OBSERVATIONS RECORDED.	
1/30/84	05:49:40	0035743	212.0	* NO OBSERVATIONS RECORDED.	
1/27/84	10:21:08	0045130	245.0	* NO OBSERVATIONS RECORDED.	

1. INITIAL LOT: 740000496 SPECIES: 0 YEAR: 0 AGE GROUP: V. CONTROL
 2. INITIAL DATE: 12/21/78 INITIAL WEIGHT: 135.0 GRAMS QUANTTYPE
 3. 1.13 - 1.14 - 1.15 - 1.16 - 1.17 - 1.18 - 1.19 - 1.20 - 1.21 - 1.22 - 1.23 - 1.24 - 1.25 - 1.26 - 1.27 - 1.28 - 1.29 - 1.30 - 1.31 - 1.32 - 1.33 - 1.34 - 1.35 - 1.36 - 1.37 - 1.38 - 1.39 - 1.40 - 1.41 - 1.42 - 1.43 - 1.44 - 1.45 - 1.46 - 1.47 - 1.48 - 1.49 - 1.50 - 1.51 - 1.52 - 1.53 - 1.54 - 1.55 - 1.56 - 1.57 - 1.58 - 1.59 - 1.60 - 1.61 - 1.62 - 1.63 - 1.64 - 1.65 - 1.66 - 1.67 - 1.68 - 1.69 - 1.70 - 1.71 - 1.72 - 1.73 - 1.74 - 1.75 - 1.76 - 1.77 - 1.78 - 1.79 - 1.80 - 1.81 - 1.82 - 1.83 - 1.84 - 1.85 - 1.86 - 1.87 - 1.88 - 1.89 - 1.90 - 1.91 - 1.92 - 1.93 - 1.94 - 1.95 - 1.96 - 1.97 - 1.98 - 1.99 - 2.00 - 2.01 - 2.02 - 2.03 - 2.04 - 2.05 - 2.06 - 2.07 - 2.08 - 2.09 - 2.10 - 2.11 - 2.12 - 2.13 - 2.14 - 2.15 - 2.16 - 2.17 - 2.18 - 2.19 - 2.20 - 2.21 - 2.22 - 2.23 - 2.24 - 2.25 - 2.26 - 2.27 - 2.28 - 2.29 - 2.30 - 2.31 - 2.32 - 2.33 - 2.34 - 2.35 - 2.36 - 2.37 - 2.38 - 2.39 - 2.40 - 2.41 - 2.42 - 2.43 - 2.44 - 2.45 - 2.46 - 2.47 - 2.48 - 2.49 - 2.50 - 2.51 - 2.52 - 2.53 - 2.54 - 2.55 - 2.56 - 2.57 - 2.58 - 2.59 - 2.60 - 2.61 - 2.62 - 2.63 - 2.64 - 2.65 - 2.66 - 2.67 - 2.68 - 2.69 - 2.70 - 2.71 - 2.72 - 2.73 - 2.74 - 2.75 - 2.76 - 2.77 - 2.78 - 2.79 - 2.80 - 2.81 - 2.82 - 2.83 - 2.84 - 2.85 - 2.86 - 2.87 - 2.88 - 2.89 - 2.90 - 2.91 - 2.92 - 2.93 - 2.94 - 2.95 - 2.96 - 2.97 - 2.98 - 2.99 - 3.00 - 3.01 - 3.02 - 3.03 - 3.04 - 3.05 - 3.06 - 3.07 - 3.08 - 3.09 - 3.10 - 3.11 - 3.12 - 3.13 - 3.14 - 3.15 - 3.16 - 3.17 - 3.18 - 3.19 - 3.20 - 3.21 - 3.22 - 3.23 - 3.24 - 3.25 - 3.26 - 3.27 - 3.28 - 3.29 - 3.30 - 3.31 - 3.32 - 3.33 - 3.34 - 3.35 - 3.36 - 3.37 - 3.38 - 3.39 - 3.40 - 3.41 - 3.42 - 3.43 - 3.44 - 3.45 - 3.46 - 3.47 - 3.48 - 3.49 - 3.50 - 3.51 - 3.52 - 3.53 - 3.54 - 3.55 - 3.56 - 3.57 - 3.58 - 3.59 - 3.60 - 3.61 - 3.62 - 3.63 - 3.64 - 3.65 - 3.66 - 3.67 - 3.68 - 3.69 - 3.70 - 3.71 - 3.72 - 3.73 - 3.74 - 3.75 - 3.76 - 3.77 - 3.78 - 3.79 - 3.80 - 3.81 - 3.82 - 3.83 - 3.84 - 3.85 - 3.86 - 3.87 - 3.88 - 3.89 - 3.90 - 3.91 - 3.92 - 3.93 - 3.94 - 3.95 - 3.96 - 3.97 - 3.98 - 3.99 - 4.00 - 4.01 - 4.02 - 4.03 - 4.04 - 4.05 - 4.06 - 4.07 - 4.08 - 4.09 - 4.10 - 4.11 - 4.12 - 4.13 - 4.14 - 4.15 - 4.16 - 4.17 - 4.18 - 4.19 - 4.20 - 4.21 - 4.22 - 4.23 - 4.24 - 4.25 - 4.26 - 4.27 - 4.28 - 4.29 - 4.30 - 4.31 - 4.32 - 4.33 - 4.34 - 4.35 - 4.36 - 4.37 - 4.38 - 4.39 - 4.40 - 4.41 - 4.42 - 4.43 - 4.44 - 4.45 - 4.46 - 4.47 - 4.48 - 4.49 - 4.50 - 4.51 - 4.52 - 4.53 - 4.54 - 4.55 - 4.56 - 4.57 - 4.58 - 4.59 - 4.60 - 4.61 - 4.62 - 4.63 - 4.64 - 4.65 - 4.66 - 4.67 - 4.68 - 4.69 - 4.70 - 4.71 - 4.72 - 4.73 - 4.74 - 4.75 - 4.76 - 4.77 - 4.78 - 4.79 - 4.80 - 4.81 - 4.82 - 4.83 - 4.84 - 4.85 - 4.86 - 4.87 - 4.88 - 4.89 - 4.90 - 4.91 - 4.92 - 4.93 - 4.94 - 4.95 - 4.96 - 4.97 - 4.98 - 4.99 - 5.00 - 5.01 - 5.02 - 5.03 - 5.04 - 5.05 - 5.06 - 5.07 - 5.08 - 5.09 - 5.10 - 5.11 - 5.12 - 5.13 - 5.14 - 5.15 - 5.16 - 5.17 - 5.18 - 5.19 - 5.20 - 5.21 - 5.22 - 5.23 - 5.24 - 5.25 - 5.26 - 5.27 - 5.28 - 5.29 - 5.30 - 5.31 - 5.32 - 5.33 - 5.34 - 5.35 - 5.36 - 5.37 - 5.38 - 5.39 - 5.40 - 5.41 - 5.42 - 5.43 - 5.44 - 5.45 - 5.46 - 5.47 - 5.48 - 5.49 - 5.50 - 5.51 - 5.52 - 5.53 - 5.54 - 5.55 - 5.56 - 5.57 - 5.58 - 5.59 - 5.60 - 5.61 - 5.62 - 5.63 - 5.64 - 5.65 - 5.66 - 5.67 - 5.68 - 5.69 - 5.70 - 5.71 - 5.72 - 5.73 - 5.74 - 5.75 - 5.76 - 5.77 - 5.78 - 5.79 - 5.80 - 5.81 - 5.82 - 5.83 - 5.84 - 5.85 - 5.86 - 5.87 - 5.88 - 5.89 - 5.90 - 5.91 - 5.92 - 5.93 - 5.94 - 5.95 - 5.96 - 5.97 - 5.98 - 5.99 - 6.00 - 6.01 - 6.02 - 6.03 - 6.04 - 6.05 - 6.06 - 6.07 - 6.08 - 6.09 - 6.10 - 6.11 - 6.12 - 6.13 - 6.14 - 6.15 - 6.16 - 6.17 - 6.18 - 6.19 - 6.20 - 6.21 - 6.22 - 6.23 - 6.24 - 6.25 - 6.26 - 6.27 - 6.28 - 6.29 - 6.30 - 6.31 - 6.32 - 6.33 - 6.34 - 6.35 - 6.36 - 6.37 - 6.38 - 6.39 - 6.40 - 6.41 - 6.42 - 6.43 - 6.44 - 6.45 - 6.46 - 6.47 - 6.48 - 6.49 - 6.50 - 6.51 - 6.52 - 6.53 - 6.54 - 6.55 - 6.56 - 6.57 - 6.58 - 6.59 - 6.60 - 6.61 - 6.62 - 6.63 - 6.64 - 6.65 - 6.66 - 6.67 - 6.68 - 6.69 - 6.70 - 6.71 - 6.72 - 6.73 - 6.74 - 6.75 - 6.76 - 6.77 - 6.78 - 6.79 - 6.80 - 6.81 - 6.82 - 6.83 - 6.84 - 6.85 - 6.86 - 6.87 - 6.88 - 6.89 - 6.90 - 6.91 - 6.92 - 6.93 - 6.94 - 6.95 - 6.96 - 6.97 - 6.98 - 6.99 - 7.00 - 7.01 - 7.02 - 7.03 - 7.04 - 7.05 - 7.06 - 7.07 - 7.08 - 7.09 - 7.10 - 7.11 - 7.12 - 7.13 - 7.14 - 7.15 - 7.16 - 7.17 - 7.18 - 7.19 - 7.20 - 7.21 - 7.22 - 7.23 - 7.24 - 7.25 - 7.26 - 7.27 - 7.28 - 7.29 - 7.30 - 7.31 - 7.32 - 7.33 - 7.34 - 7.35 - 7.36 - 7.37 - 7.38 - 7.39 - 7.40 - 7.41 - 7.42 - 7.43 - 7.44 - 7.45 - 7.46 - 7.47 - 7.48 - 7.49 - 7.50 - 7.51 - 7.52 - 7.53 - 7.54 - 7.55 - 7.56 - 7.57 - 7.58 - 7.59 - 7.60 - 7.61 - 7.62 - 7.63 - 7.64 - 7.65 - 7.66 - 7.67 - 7.68 - 7.69 - 7.70 - 7.71 - 7.72 - 7.73 - 7.74 - 7.75 - 7.76 - 7.77 - 7.78 - 7.79 - 7.80 - 7.81 - 7.82 -

[illegible][illegible]

ANIMAL ID: 88000530 SPECIES: D SEX: FEMALE GROUP: V. CONTROL
BIRTH DATE: 12/05/83 INITIAL WEIGHT: 150.0 GRAMS QUANTATINE ID: 884000530
THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	OPERATOR	FIGHT AGAINST	CLASSICAL OBSERVATIONS
2/11/84	01:55:24	0045130	294.0	NORMAL
2/13/84	00:51:30	0045130		NORMAL
2/12/84	01:14:44	000337		NORMAL
2/11/84	01:26:34	0049245		NORMAL
2/10/84	00:48:20	0051130	218.0	NORMAL
2/6/84	01:50:32	0042232		NORMAL
2/6/84	01:43:04	0035743		NORMAL
2/07/84	01:58:06	0045130	211.0	NORMAL
2/04/84	01:56:43	0042232		NORMAL
2/05/84	01:25:52	0053257		NORMAL
2/05/84	10:41:52	0053257		NORMAL
2/04/84	10:27:04	0045130		NORMAL
2/03/84	01:59:02	0045130	146.0	NORMAL
2/02/84	01:19:20	0045130		NORMAL
2/01/84	01:50:14	0044446		NORMAL
1/31/84	01:50:26	0035743		NORMAL
1/31/84	11:51:50	0035743		NORMAL
1/31/84	10:52:44	0045130	101.0	NORMAL
1/30/84	01:50:24	0035743	107.0	NORMAL
1/29/84	10:48:00	0045130	171.0	NORMAL

ACTUAL ID: 0400563 SPECIES: D SEX: FEMALE GROUP: V. CONTROL
 QUIN DATE: 12/05/83 INITIAL WEIGHT: 195.0 GRAMS QUANTINE ID: 084000563
 THIS ANIMAL WAS NOT REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT (GRAMS)	CLINICAL OBSERVATIONS
2/14/84	9:54:50	045150	NORMAL
2/18/84	0:18:20	045150	NORMAL
2/18/84	14:15:20	040457	NORMAL
2/11/84	9:50:35	044225	NORMAL
2/10/84	8:49:52	045150	NORMAL
2/09/84	0:51:00	042232	NORMAL
2/09/84	0:51:44	035743	NORMAL
2/07/84	0:41:32	045150	NORMAL
2/06/84	9:00:54	042232	NORMAL
2/05/84	13:27:30	053257	NORMAL
2/05/84	10:42:50	053257	NORMAL
2/04/84	11:00:04	045150	NORMAL
2/03/84	9:05:20	045150	NORMAL
2/02/84	9:22:39	045150	NORMAL
2/01/84	12:12:12	044906	SLIGHT RED NOSE STAIN
1/31/84	15:02:20	035743	NORMAL
1/31/84	11:54:52	035743	NORMAL
1/31/84	10:53:00	045150	* NO OBSERVATIONS RECORDED.
1/30/84	9:10:54	035743	* NO OBSERVATIONS RECORDED.
1/27/84	10:43:20	045150	162.0 * NO OBSERVATIONS RECORDED.
			183.0 * NO OBSERVATIONS RECORDED.
			177.0 * NO OBSERVATIONS RECORDED.

ACTUAL ID: 0400563 SPECIES: D SEX: FEMALE GROUP: V. CONTROL
 QUIN DATE: 12/05/83 INITIAL WEIGHT: 195.0 GRAMS QUANTINE ID: 084000563
 THIS ANIMAL WAS NOT REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT (GRAMS)	CLINICAL OBSERVATIONS
2/14/84	0:07:40	045150	SLIGHT DIARRHEA
2/13/84	0:21:00	045150	NORMAL
2/12/84	14:14:10	040337	NORMAL
2/11/84	7:51:32	044225	NORMAL
2/10/84	0:55:26	045150	201.0
2/09/84	0:55:54	042232	NORMAL
2/09/84	0:54:22	035743	NORMAL
2/07/84	0:45:02	045150	SLIGHT VOCALIZATION
2/06/84	9:00:00	042232	NORMAL
2/05/84	13:24:10	053257	NORMAL
2/05/84	10:41:32	053257	NORMAL
2/04/84	11:01:50	045150	SLIGHT INCREASED STABILE REFLEX
2/03/84	9:12:12	045150	NORMAL
2/02/84	9:23:00	045150	NORMAL
2/01/84	12:17:44	044906	MARKED
1/31/84	14:50:20	035743	MARKED
1/31/84	11:54:52	035743	NORMAL
1/31/84	10:53:00	045150	* NO OBSERVATIONS RECORDED.
1/30/84	9:10:54	035743	* NO OBSERVATIONS RECORDED.
1/27/84	10:56:50	045150	162.0 * NO OBSERVATIONS RECORDED.
			183.0 * NO OBSERVATIONS RECORDED.
			177.0 * NO OBSERVATIONS RECORDED.

ANIMAL ID: 08400576 SPECIES: D SEX: FEMALE GROUP: V. CONTROL
 ALBIM DATE: 12/05/83 INITIAL WEIGHT: 100.0 GRAMS QUARANTINE ID: 08400576
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT	OPERATION	CLINICAL OBSERVATIONS
2/10/84	0:40:40	0045130	218.0	NORMAL
2/13/84	0:22:00	0045130		NORMAL
2/12/84	1:16:04	0000437		NORMAL
2/11/84	9:36:22	0049225		NORMAL
2/10/84	0:50:10	0045130	214.0	NORMAL
2/09/84	0:57:10	0042232		NORMAL
2/08/84	0:35:50	0035743		NORMAL
2/07/84	0:47:30	0045130	206.0	NORMAL
2/06/84	9:08:40	0042332		NORMAL
2/05/84	13:20:42	0053257		NORMAL
2/05/84	10:40:04	0053257		NORMAL
2/04/84	11:03:12	0045130		NORMAL
2/03/84	9:14:44	0045130	198.0	NORMAL
2/02/84	9:27:50	0045130		NORMAL
2/01/84	12:24:10	0069906		SLIGHT IRRITABLE
1/31/84	14:50:00	0035743		WAXED IRRITABLE
1/31/84	12:07:30	0035743		NORMAL
1/31/84	10:57:02	0045130	108.0	* NO OBSERVATIONS RECORDED.
1/30/84	9:22:54	0035743	190.0	* NO OBSERVATIONS RECORDED.
1/27/84	11:00:32	0045130	102.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 08400583 SPECIES: D SEX: FEMALE GROUP: V. CONTROL
 ALBIM DATE: 12/05/83 INITIAL WEIGHT: 112.0 GRAMS QUARANTINE ID: 08400583
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT	OPERATION	CLINICAL OBSERVATIONS
2/10/84	5:31:16	0045130	238.0	NORMAL
2/13/84	0:23:20	0045130		NORMAL
2/12/84	14:17:04	0000337		NORMAL
2/11/84	9:37:34	0049225		NORMAL
2/10/84	0:59:20	0045130	230.0	NORMAL
2/09/84	0:59:20	0042232		NORMAL
2/08/84	0:36:54	0035743		NORMAL
2/07/84	0:49:50	0045130	224.0	NORMAL
2/06/84	11:11:30	0042332		NORMAL
2/05/84	13:29:04	0053257		NORMAL
2/05/84	10:40:04	0053257		NORMAL
2/04/84	11:04:12	0045130	208.0	NORMAL
2/03/84	9:21:40	0045130		NORMAL
2/02/84	9:29:22	0045130		NORMAL
2/01/84	12:24:10	0069906		NORMAL
1/31/84	12:10:20	0035743		NORMAL
1/31/84	10:57:02	0045130	175.0	* NO OBSERVATIONS RECORDED.
1/30/84	9:28:02	0035743	199.0	* NO OBSERVATIONS RECORDED.
1/27/84	11:06:36	0045130	191.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 084000472 SPECIES: D SEX: MALE GROUP: 218 MG/AG
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 216.0 GRAMS QUARANTINE ID: 084000472
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE TIME WEIGHT OPERATOR COMMENTS CLINICAL OBSERVATIONS

2/14/84	02:09:45	0043130	356.0	00444L	
2/15/84	12:24:06	0043130		00444L	
2/16/84	14:01:26	0043337		00444L	
2/17/84	02:07:56	0043225		00444L	
2/18/84	02:24:22	0043130	352.0	00444L	
2/19/84	02:23:16	0042232		00444L	
2/20/84	02:10:28	0043743		00444L	
2/21/84	02:10:04	0043130	311.0	00444L	
2/22/84	02:11:05	0042232		00444L	
2/23/84	13:22:20	0053257		00444L	
2/24/84	10:24:22	0053257		00444L	
2/25/84	10:24:00	0043130		00444L	
2/26/84	02:13:54	0043130	247.0	00444L	
2/27/84	02:12:42	0043130		00444L	
2/28/84	02:17:06	0053743		00444L	
2/29/84	12:23:24	0053743		00444L	
3/1/84	10:24:00	0043743		00444L	
3/1/84	02:04:40	0043130	244.0		* NO OBSERVATIONS RECORDED.
3/2/84	02:04:24	0053743	247.0		* NO OBSERVATIONS RECORDED.
3/27/84	10:10:24	0043130	241.0		* NO OBSERVATIONS RECORDED.

SLIGHT INCREASED STABILE REFLEX
 SLIGHT MOUCH COAT, SLIGHT RED NASAL DISCHARGE, MUCOUS DIAPHRAGMA
 * NO OBSERVATIONS RECORDED.

ANIMAL ID: 084000472 SPECIES: D SEX: MALE GROUP: 218 MG/AG
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 198.0 GRAMS QUARANTINE ID: 084000472
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE TIME WEIGHT OPERATOR COMMENTS CLINICAL OBSERVATIONS

2/14/84	02:16:06	0043130	356.0	00444L	
2/15/84	12:24:06	0043130		00444L	
2/16/84	14:03:34	0043337		00444L	
2/17/84	02:07:56	0043225		00444L	
2/18/84	02:24:22	0043130	354.0	00444L	
2/19/84	02:23:16	0042232		00444L	
2/20/84	02:10:28	0043743		00444L	
2/21/84	02:10:04	0043130	320.0	00444L	
2/22/84	02:11:05	0042232		00444L	
2/23/84	13:22:20	0053257		00444L	
2/24/84	10:24:22	0053257		00444L	
2/25/84	10:24:00	0043130		00444L	
2/26/84	02:13:54	0043130	276.0	00444L	
2/27/84	02:12:42	0043130		00444L	
2/28/84	02:17:06	0053743		00444L	
2/29/84	12:23:24	0053743		00444L	
3/1/84	10:24:00	0043743		00444L	
3/1/84	02:04:40	0043130	255.0		* NO OBSERVATIONS RECORDED.
3/2/84	02:04:24	0053743	263.0		* NO OBSERVATIONS RECORDED.
3/27/84	10:10:24	0043130	259.0		* NO OBSERVATIONS RECORDED.

SLIGHT INCREASED STABILE REFLEX, SLIGHT MUCOUS PERITONAL STAIN
 MODERATE IRRITABLE, SLIGHT RED NASAL DISCHARGE, SLIGHT INCREASED SALIVATION
 * NO OBSERVATIONS RECORDED.

ANIMAL NO: 00000501 SPECIES: D SEX: MALE GROUP: 214 M0/K6
 FLIGHT DATE: 12/12/75 INITIAL WEIGHT: 170.0 GRAMS QUANTATIVE ID: 0000000491
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	FLIGHT WEIGHT	CLINICAL OBSERVATIONS
2/10/74	01:01:50	0.043150	NORMAL
2/13/74	01:02:50	0.043150	NORMAL
2/12/74	10:08:10	0.000457	NORMAL
2/11/74	01:17:20	0.044225	NORMAL
2/10/74	01:32:54	0.043150	NORMAL
2/09/74	01:30:34	0.042252	NORMAL
2/08/74	01:16:50	0.035743	NORMAL
2/07/74	01:14:02	0.043150	NORMAL
2/06/74	01:52:10	0.042252	NORMAL
2/05/74	13:24:00	0.053257	NORMAL
2/04/74	10:50:00	0.053257	NORMAL
2/03/74	10:46:34	0.043150	NORMAL
2/02/74	01:51:00	0.043150	SLIGHT RED NOSE STAIN
2/01/74	01:01:10	0.043150	SLIGHT RED NOSE MATERIAL
1/31/74	01:51:14	0.035743	NORMAL
1/30/74	13:09:10	0.035743	SLIGHT RED NASAL DISCHARGE, SLIGHT RUDDY CORAL
1/29/74	11:06:20	0.035743	SLIGHT HYPERAEMIC, SLIGHT RED NASAL DISCHARGE
1/28/74	01:44:54	0.043150	* NO OBSERVATIONS RECORDED.
1/27/74	01:50:00	0.035743	* NO OBSERVATIONS RECORDED.
1/26/74	10:21:30	0.043150	* NO OBSERVATIONS RECORDED.

ANIMAL NO: 00000501 SPECIES: D SEX: MALE GROUP: 214 M0/K6
 FLIGHT DATE: 12/12/75 INITIAL WEIGHT: 205.0 GRAMS QUANTATIVE ID: 000000501
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	FLIGHT WEIGHT	CLINICAL OBSERVATIONS
2/10/74	01:05:30	0.043150	NORMAL
2/13/74	01:05:30	0.043150	NORMAL
2/12/74	14:07:02	0.000357	NORMAL
2/11/74	01:19:50	0.044225	NORMAL
2/10/74	01:56:10	0.043150	NORMAL
2/09/74	01:41:54	0.042252	NORMAL
2/08/74	01:01:02	0.035743	NORMAL
2/07/74	01:05:54	0.043150	Moderate Irritable, Slight Diarrhea
2/06/74	01:57:24	0.042252	SLIGHT INCREASED RESPIRATION RATE
2/05/74	13:24:50	0.053257	NORMAL
2/04/74	10:50:00	0.053257	NORMAL
2/03/74	10:46:34	0.043150	NORMAL
2/02/74	01:59:10	0.043150	NORMAL
2/01/74	01:05:00	0.043150	NORMAL
1/31/74	11:57:24	0.044225	Moderate RUDDY CORAL, Moderate Irritable, Slight Red Nasal Discharge, Moderate Increased Respiration Rate
1/30/74	13:11:14	0.035743	NORMAL
1/29/74	01:12:04	0.035743	* NO OBSERVATIONS RECORDED.
1/28/74	01:46:00	0.043150	* NO OBSERVATIONS RECORDED.
1/27/74	01:51:20	0.035743	* NO OBSERVATIONS RECORDED.
1/26/74	10:26:10	0.043150	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 084000502 SPECIES: D SEX: MALE GROUP: 2/8 M6/AG
 BIRTH DATE: 12/12/73 INITIAL WEIGHT: 179.0 GRAMS GUARANTINE ID: 084000502
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT	OPERATOR	TERMINAL	CLINICAL OBSERVATIONS
2/10/74	0520:10	343.0	0045130	NORMAL	
2/11/74	0505:50		0045130	NORMAL	
2/12/74	1450:212		0000337	NORMAL	
2/13/74	0520:224		0049406	SLIGHT DIARRHEA	
2/14/74	1554:50	349.0	0045130	NORMAL	
2/15/74	0521:50		0042232	NORMAL	
2/16/74	0520:58		0035743	NORMAL	
2/17/74	0527:10	268.0	0045130	NORMAL	
2/18/74	0548:10		0042232	ADDITION: SLOW SIDE TO SIDE HEAD MOVES WITH STAGE	
2/19/74	0558:10		0042232	NORMAL	
2/20/74	1324:50		0053237	NORMAL	
2/21/74	1059:10		0053237	NORMAL	
2/22/74	1049:38		0045130	NORMAL	
2/23/74	0540:54	245.0	0045130	SLIGHT EXOPHTHALMUS	
2/24/74	1155:10		0045130	NORMAL	
2/25/74	1155:10		0049406	NORMAL	
2/26/74	1313:30		0053743	MARFJ MIMICRED POSTURE, MODERATE INCREASED RESPIRATION RATE	
2/27/74	1313:02	201.0	0053743	MODERATE HYPERAETIVE	
2/28/74	0548:40	232.0	0045130	* NO OBSERVATIONS RECORDED.	
2/29/74	0535:52	232.0	0053743	* NO OBSERVATIONS RECORDED.	
2/27/74	1026:50	205.0	0045130	* NO OBSERVATIONS RECORDED.	

ANIMAL ID: 084000514 SPECIES: D SEX: MALE GROUP: 2/8 M6/AG
 BIRTH DATE: 12/12/73 INITIAL WEIGHT: 210.0 GRAMS GUARANTINE ID: 084000514
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT	OPERATOR	TERMINAL	CLINICAL OBSERVATIONS
2/10/74	0550:08	345.0	0045130	NORMAL	
2/11/74	0509:08		0045130	NORMAL	
2/12/74	1413:16		0000337	NORMAL	
2/13/74	0523:14		0049406	NORMAL	
2/14/74	0541:00	341.0	0045130	NORMAL	
2/15/74	0545:52		0042232	NORMAL	
2/16/74	0544:22		0035743	NORMAL	
2/17/74	0531:50	305.0	0045130	NORMAL	
2/18/74	0544:06		0042232	NORMAL	
2/19/74	1325:18		0053237	ROUGH COAT	
2/20/74	1054:04		0053237	SLIGHT MIMICRED POSTURE, SLIGHT INCREASED RESPIRATION RATE	
2/21/74	1052:54		0045130	SLIGHT MIMICRED POSTURE, SLIGHT DEPRESSED GRASPING REFLEX	
2/22/74	0548:00	273.0	0045130	SLIGHT MIMICRED POSTURE, SLIGHT DEPRESSED GRASPING REFLEX	
2/23/74	0548:46		0045130	SLIGHT EXOPHTHALMUS	
2/24/74	1149:46		0049406	SLIGHT INACTIVE, SLIGHT MIMICRED POSTURE, SLIGHT RED MOUTH	
2/25/74	1317:50	269.0	0053743	MODERATE MIMICRED POSTURE, SLIGHT INCREASED RESPIRATION RATE	
2/26/74	1320:22	269.0	0045130	SLIGHT MIMICRED POSTURE, SLIGHT DEPRESSED GRASPING REFLEX	
2/27/74	0559:00	259.0	0053743	* NO OBSERVATIONS RECORDED.	
2/28/74	1053:56	258.0	0045130	* NO OBSERVATIONS RECORDED.	

4. I. L. NO: 0406-517 SPECIES: D SEX: MALE GROUP: 2A HUGG
DATE OF BIRTH: 12/12/73 ALTITUDE: 1870 GMS
LOCAL NAME: THIS INDIVIDUAL WAS NOT RECOVERED FROM THE EXPERIMENT.
HUGG-A-JIMME ID: GR40000519

0-95678

DATE	LOCATION	ALIGNMENT	UTLILICAL OBSERVATIONS
2/11/74	0051:30	373.0	NORMAL
2/11/74	0051:50		SLIGHT ROUGH LOT
2/11/74	0051:50		NORMAL
2/11/74	0052:25		NORMAL
2/11/74	0052:50	347.0	NORMAL
2/11/74	0053:10		NORMAL
2/11/74	0053:30		NORMAL
2/11/74	0053:43		NORMAL
2/11/74	0054:10	314.0	NORMAL
2/11/74	0054:22		NORMAL
2/11/74	0054:50		NORMAL
2/11/74	0055:27		NORMAL
2/11/74	0055:27		NORMAL
2/11/74	0055:26		NORMAL
2/11/74	0055:10		NORMAL
2/11/74	0055:10	209.0	NORMAL
2/11/74	0055:10		NORMAL
2/11/74	0055:26		NORMAL
2/11/74	0055:26		SLIGHT HUNCHED POSTURE, SLIGHT ROUGH LOT, MARKED BURN
2/11/74	0055:26		PERMANENT MATERIAL
2/11/74	0055:26		SLIGHT HYPERACTIVITY, HUNCHED
2/11/74	0055:26	200.0	* NO OBSERVATIONS REQUIRED.
2/11/74	0055:26	231.0	* NO OBSERVATIONS REQUIRED.
2/11/74	0055:26	233.0	* NO OBSERVATIONS REQUIRED.
2/11/74	0055:26		* NO OBSERVATIONS REQUIRED.

ANIMAL ID: 00000525 SPECIES: D SEX: FEMALE GROUP: 2/8 M/AG
 BIRTH DATE: 12/05/73 INITIAL WEIGHT: 19.0 GRAMS QUARANTINE ID: 00000525
 REMOVAL DATE: 2/02/74 TIME: 03:14:22 REASON: PHYSICAL ABNORMALITY

OBSERVATIONS

DATE	TIME	DEVIATION	WEIGHT	CLINICAL OBSERVATIONS
2/02/74	03:10:22	0045130		MISUNDER, REMOVED FROM STUDY
1/31/74	03:51:06	0045130	164.0	* NO OBSERVATIONS RECORDED.
1/30/74	03:04:04	0033743	205.0	* NO OBSERVATIONS RECORDED.
1/27/74	10:39:10	0045130	201.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000529 SPECIES: D SEX: FEMALE GROUP: 2/8 M/AG
 BIRTH DATE: 12/05/73 INITIAL WEIGHT: 157.0 GRAMS QUARANTINE ID: 004000529
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	DEVIATION	WEIGHT	CLINICAL OBSERVATIONS
2/10/74	03:00:04	0045130	223.0	NORMAL
2/11/74	03:10:52	0045130		NORMAL
2/12/74	14:10:34	0000337		NORMAL
2/11/74	03:28:22	0042225		NORMAL
2/10/74	03:05:56	0045130	215.0	NORMAL
2/09/74	03:00:10	0042232		NORMAL
2/08/74	03:27:54	0033743		NORMAL
2/07/74	03:37:32	0045130	209.0	NORMAL
2/06/74	03:56:06	0042232		SLIGHT
2/05/74	13:25:43	0053257		NORMAL
2/05/74	10:01:06	0053257		NORMAL
2/04/74	10:55:56	0045130		NORMAL
2/03/74	03:53:14	0045130	168.0	NORMAL
2/02/74	03:17:52	0045130		NORMAL
2/01/74	12:04:32	0064404		SLIGHT IRRITABLE
1/31/74	13:23:56	0033743		Moderate MOUTH CHAT, SLIGHT IRRITABLE, SLIGHT RED NASAL DISCHARGE, SLIGHT INCREASED SALIVATION
1/31/74	11:30:56	0064406		SLIGHT ULCER MOUTH MATERIAL, SLIGHT DECREASED GRASPING REFLEX
1/31/74	03:54:30	0045130	160.0	* NO OBSERVATIONS RECORDED.
1/30/74	03:06:02	0033743	105.0	* NO OBSERVATIONS RECORDED.
1/27/74	10:42:36	0045130	173.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00400533 SPECIES: D SEX: FEMALE GROUP: 21A N0746
 BIRTH DATE: 12/05/43 INITIAL WEIGHT: 100.0 GRAMS QUANTITATIVE ID: 00400533
 THIS ANIMAL WAS NOT REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT (GRAMS)	FLIGHT	CLINICAL OBSERVATIONS
2/13/44	01:55:52	0045130	224.0	NORMAL
2/13/44	01:16:16	0045130		NORMAL
2/12/44	14:14:50	0040337		NORMAL
2/11/44	14:24:00	0049225		NORMAL
2/10/44	14:27:16	0045130	220.0	NORMAL
2/09/44	01:50:54	0042552		NORMAL
2/08/44	01:49:06	0035743		NORMAL
2/07/44	01:53:44	0045130	210.0	NORMAL
2/06/44	01:57:24	0042552		NORMAL
2/05/44	13:46:50	0053257		NORMAL
2/04/44	13:42:00	0053257		NORMAL
2/03/44	13:57:00	0045130		SLIGHT HYPERACTIVE
2/02/44	01:59:54	0045130	194.0	SLIGHT INCREASED STAPLE RETELLY
2/01/44	12:05:46	0045130		NORMAL
2/01/44	12:05:52	0049406		SLIGHT IRRITABLE
1/31/44	13:40:56	0035743		SLIGHT IRRITABLE
1/31/44	11:32:50	0035743	162.0	* NO OBSERVATIONS RECORDED.
1/31/44	01:53:44	0045130	185.0	* NO OBSERVATIONS RECORDED.
1/30/44	13:07:40	0035743	171.0	* NO OBSERVATIONS RECORDED.
1/27/44	10:44:00	0045130		* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00400537 SPECIES: D SEX: FEMALE GROUP: 21A N0746
 BIRTH DATE: 12/05/43 INITIAL WEIGHT: 114.0 GRAMS QUANTITATIVE ID: 00400537
 THIS ANIMAL WAS NOT REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT (GRAMS)	FLIGHT	CLINICAL OBSERVATIONS
2/14/44	01:56:52	0045130	245.0	NORMAL
2/13/44	01:17:02	0045130		NORMAL
2/12/44	14:15:02	0040337		NORMAL
2/11/44	14:29:44	0049225		NORMAL
2/10/44	01:48:03	0045130	236.0	NORMAL
2/09/44	01:51:40	0042552		NORMAL
2/08/44	01:50:24	0035743		NORMAL
2/07/44	01:59:50	0045130	226.0	NORMAL
2/06/44	01:58:40	0042552		NORMAL
2/05/44	13:27:16	0053257		NORMAL
2/04/44	13:42:24	0053257		NORMAL
2/03/44	13:53:06	0045130		SLIGHT HYPERACTIVE/MONOTONE IRRITABLE
2/02/44	14:01:04	0045130	216.0	SLIGHT INCREASED RESPIRATION RATE
2/01/44	14:01:16	0045130		NORMAL
2/01/44	14:00:36	0049406		SLIGHT IRRITABLE SLIGHT RED NOSE STAIN
1/31/44	13:42:42	0049406		SLIGHT IRRITABLE SLIGHT RED NOSE STAIN
1/31/44	11:35:24	0035743		SLIGHT IRRITABLE SLIGHT RED NOSE STAIN
1/31/44	01:57:53	0045130	174.0	SLIGHT HYPERACTIVE
1/30/44	13:07:20	0035743	204.0	* NO OBSERVATIONS RECORDED.
1/27/44	10:44:20	0045130	188.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000540 SPECIES: D SEX: FEMALE GROUP: P/B M6/M6
 START DATE: 12/05/83 INITIAL WEIGHT: 158.0 GRAMS QUANTITATIVE ID: 000000540
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE TIME WEIGHT OBSERVATION QUALITY OBSERVATIONS

2/10/84	0159:20	0045130	228.0	NORMAL	
2/13/84	0118:40	0045130		NORMAL	
2/12/84	1415:54	0045337		NORMAL	
2/11/84	0150:50	0045225		NORMAL	
2/10/84	0150:02	0045130	212.0	NORMAL	
2/07/84	0153:20	0045232		NORMAL	
2/06/84	0152:00	0035743		NORMAL	
2/07/84	0142:04	0045130	204.0	NORMAL	
2/05/84	0101:44	0042252		NORMAL	
2/05/84	1312:50	0035257		NORMAL	
2/05/84	1043:02	0035257		NORMAL	
2/04/84	1110:10	0045130		NORMAL	
2/04/84	0106:15	0045130	167.0	NORMAL	
2/02/84	0122:50	0045130		NORMAL	
2/01/84	1212:50	0045406		NORMAL	
1/31/84	1312:44	0035743		NORMAL	
1/31/84	1159:15	0035743		NORMAL	
1/31/84	1356:40	0045130	154.0	* NO OBSERVATIONS RECORDED.	
1/30/84	0111:20	0035743	173.0	* NO OBSERVATIONS RECORDED.	
1/27/84	1040:04	0035130	165.0	* NO OBSERVATIONS RECORDED.	

ANIMAL ID: 00000560 SPECIES: D SEX: FEMALE GROUP: P/B M6/M6
 START DATE: 12/05/83 INITIAL WEIGHT: 176.0 GRAMS QUANTITATIVE ID: 000000560
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE TIME WEIGHT OBSERVATION QUALITY OBSERVATIONS

2/10/84	0141:02	0045130	243.0	NORMAL	
2/13/84	0120:10	0045130		NORMAL	
2/12/84	1415:50	0000137		NORMAL	
2/11/84	0132:20	0045225		NORMAL	
2/10/84	0133:22	0045130	234.0	NORMAL	
2/09/84	0134:52	0042252		NORMAL	
2/08/84	0131:22	0035743		NORMAL	
2/07/84	0143:54	0045130	231.0	NORMAL	
2/06/84	0105:12	0042252		NORMAL	
2/05/84	1312:50	0035257		NORMAL	
2/05/84	1043:20	0035257		NORMAL	
2/04/84	1101:04	0045130	209.0	NORMAL	
2/03/84	0109:14	0045130		NORMAL	
2/02/84	0124:30	0045130		NORMAL	
2/01/84	1215:00	0069006		NORMAL	
1/31/84	1324:32	0035743		NORMAL	
1/31/84	1140:12	0035743		NORMAL	
1/31/84	0159:24	0045130	177.0	* NO OBSERVATIONS RECORDED.	
1/30/84	0115:46	0035743	149.0	* NO OBSERVATIONS RECORDED.	
1/27/84	1050:12	0045130	144.0	* NO OBSERVATIONS RECORDED.	

ACTUAL 10:000000000 SPECIES: D. MEX. FEMALE GROUP: P/M 10/0/00
 10:000000000 INITIAL OBSERVATIONS: 10:000000000 OBSERVATIONS 10:000000000
 THIS ANIMAL WAS NOT OBSERVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	SECTION	FLIGHT	REMARKS
2/14/84	07:22:30	0045130	211.0	NORMAL
2/14/84	07:24:50	0045130		NORMAL
2/12/84	14:11:20	0045130		NORMAL
2/11/84	07:54:20	0045225		NORMAL
2/10/84	07:02:00	0045130	209.0	NORMAL
2/09/84	07:54:55	0045232		NORMAL
2/09/84	07:57:40	0045743		NORMAL
2/07/84	07:54:10	0045130	190.0	NORMAL
2/06/84	07:12:50	0045232		NORMAL
2/05/84	13:09:10	0045237		SLIGHT DEPRESSION GRASPING REFLEX
2/05/84	10:44:00	07:52:27		SLIGHT DEPRESSION GRASPING REFLEX
2/03/84	11:04:50	0045130		SLIGHT DEPRESSION GRASPING REFLEX
2/02/84	07:53:40	0045130	185.0	SLIGHT DEPRESSION GRASPING REFLEX
2/01/84	14:31:50	0045130		SLIGHT DEPRESSION GRASPING REFLEX
1/31/84	13:00:50	0045743		NORMAL
1/31/84	14:12:10	0045743		NORMAL
1/31/84	07:00:50	0045130	107.0	SLIGHT DEPRESSION GRASPING REFLEX
1/30/84	07:53:50	0045743	179.0	SLIGHT DEPRESSION GRASPING REFLEX
1/27/84	11:07:34	0045130	177.0	SLIGHT DEPRESSION GRASPING REFLEX

ANIMAL ID: 04000502 SPECIES: D SEX: FEMALE GROUP: 2/R M/AR
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 103.0 GRAMS QUANTITATIVE ID: 04000502
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

Date	Time	Observation	Weight	Clinical Observations
2/10/84	8:24:38	0045130	240.0	NORMAL
2/13/84	8:26:30	0045130		NORMAL
2/12/84	14:17:44	000357		NORMAL
2/11/84	9:40:10	0049225		NORMAL
2/10/84	9:02:30	0045130	244.0	NORMAL
2/09/84	9:00:29	0042232		NORMAL
2/08/84	8:59:10	0035743		NORMAL
2/07/84	9:00:14	0045130	212.0	NORMAL
2/06/84	9:15:44	0042232		SLIGHT EXOPHTHALMUS
2/05/84	13:29:44	0053257		SLIGHT DEPRESSED GRASPING REFLEX
2/04/84	10:45:10	0053257		SLIGHT DEPRESSED GRASPING REFLEX
2/03/84	11:07:09	0045130		SLIGHT DEPRESSED GRASPING REFLEX
2/02/84	9:29:04	0045130	190.0	NORMAL
2/01/84	9:25:20	0045130		SLIGHT RED NOSE MATERIAL
1/31/84	12:55:50	0069906		NORMAL
1/31/84	12:44:04	0035743		Moderate hunched posture, slight increased startle reflex, moderate clear nasal discharge, marked increased salivation, slight depressed right or left, slight clear lacrimation, moderate depressed grasping reflex
1/31/84	12:14:58	0069906		SLIGHT CLEAR MOUTH MATERIAL, SLIGHT EXOPHTHALMUS, MARKED DEPRESSED GRASPING REFLEX
1/31/84	9:01:22	0045130	174.0	* NO OBSERVATIONS RECORDED.
1/30/84	9:28:46	0035743	185.0	* NO OBSERVATIONS RECORDED.
1/27/84	11:10:40	0045130	164.0	* NO OBSERVATIONS RECORDED.

RESERVATION

Date	Time	Location	Weight	Remarks
2/11/84	01:55:00	0045130	210.0	NORMAL
2/13/84	01:27:00	0054406		SLIGHT IRRITABLE
2/12/84	14:17:50	0054405		SLIGHT IRRITABLE
2/11/84	01:41:10	0054406		SLIGHT IRRITABLE
2/11/84	01:03:22	0045130	200.0	SLIGHT IRRITABLE
2/09/84	01:01:10	0042242		NORMAL
2/08/84	01:40:00	0035743		NORMAL
2/07/84	01:01:20	0045130	195.0	NORMAL
2/06/84	01:17:00	0042242		SLIGHT INCREASED RESPIRATORY RATE, SLIGHT EXOPHYTHALMOS
2/05/84	13:50:10	0055257		NORMAL
2/05/84	01:45:34	0055257		NORMAL
2/04/84	11:57:44	0045130		SLIGHT IRRITABLE
2/03/84	01:31:10	0045130	177.0	SLIGHT HYPERALTRIVE, SLIGHT EXOPHYTHALMOS
2/02/84	01:43:54	0045130		NORMAL
2/02/84	01:30:52	0054406		SLIGHT IRRITABLE
2/01/84	12:40:02	0054406		MARKED IRRITABLE
1/31/84	13:46:32	0055743		SLIGHT IRRITABLE, SLIGHT HYPERALTRIVE, MODERATE EXOPHYTHALMOS, SLIGHT
1/31/84	12:21:55	0055743		DEPRESSED GASPSING REFLEX
1/31/84	01:02:22	0045130	161.0	* NO OBSERVATIONS RECORD.
1/30/84	01:30:04	0055743	156.0	* NO OBSERVATIONS RECORD.
1/27/84	11:11:54	0045130	160.0	* NO OBSERVATIONS RECORD.

د. محمد صالح المنجد

DATE	TIME	RECEIVED	FLIGHT	REMARKS
2/1/54	5:07:22	0043130	431.0	NORMAL
2/1/54	5:26:55	0043130		NORMAL
2/1/54	5:30:40	0043537		NORMAL
2/1/54	5:35:10	0043225		NORMAL
2/1/54	5:38:12	0043130	407.0	NORMAL
2/2/54	5:37:03	0042232		NORMAL
2/2/54	5:37:43	003743		NORMAL
2/2/54	5:45:40	0043130	243.0	NORMAL
2/2/54	5:48:22	0042232		NORMAL
2/2/54	5:51:50	0053237		SLIGHT MOON CNAT
2/2/54	5:53:22	0053237		SLIGHT MOON CNAT
2/2/54	5:53:10	0043130		SLIGHT MOON CNAT
2/2/54	6:02:44	0043130	263.0	NORMAL
2/2/54	6:06:10	0043130		NORMAL
2/2/54	6:14:40	003743		SLIGHT MOON NASAL VISC
1/31/54	6:27:54	003743		SLIGHT MOON NASAL VISC
1/31/54	6:29:50	0043130		SLIGHT MOON NASAL VISC
1/31/54	6:36:40	0043130	224.0	* NO OBSERVATIONS REC'D
1/30/54	6:37:14	003743	234.0	* NO OBSERVATIONS REC'D
1/27/54	6:06:29	0043130	234.0	* NO OBSERVATIONS REC'D

ANIMAL ID: 04JUN006
 SPECIES: D. SRY: MALE GROUP: 200 MG/KG
 INITIAL DATE: 12/12/93
 INITIAL WEIGHT: 195.0 GRAMS
 INITIAL TIME: 094000063
 THIS ANIMAL WAS NOT RECN REMOVED FROM THE EXPERIMENT.

0.35-2.41 IJWS

[illegible]

4. INITIAL NO: 0000007 SPECIES: B SEX: M AGE GROUP: SUB ADULT
INITIAL HEIGHT: 26.0 CM WING LENGTH: 18.0 CM TAIL LENGTH: 12.0 CM
WEIGHT: 19.0 G CLAW LENGTH: 1.0 CM TOE LENGTH: 1.0 CM

11.9.5.4.1.70

[illegible]

ANIMAL NO: 00000475 SPECIES: D SEX: 4ALE GROUP: 300 MG/KG
BIRTH DATE: 12/12/93 INITIAL WEIGHT: 211.0 GRAMS
THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.
INSTRUMENTATION ID: 084000475

RESERVATIONS

--DATE--	TIME--	TEMPERATURE	"FLIGHT LOGS"	CUMULATIVE OBSERVATIONS
2/14/84	0:14:00	0045150	329.0	NORMAL
2/13/84	0:00:50	0045150		NORMAL
2/12/84	14:03:50	0000337		NORMAL
2/11/84	9:12:14	0049265		NORMAL
2/10/84	0:29:40	0045150	311.0	NORMAL
2/09/84	0:37:42	0042542		NORMAL
2/08/84	0:14:32	0035743		NORMAL
2/07/84	0:16:22	0045150	501.0	NORMAL
2/06/84	0:27:54	0042282		SLIGHTLY INCREASED RESPIRATION RATE SLIGHT EXOPHTHALMUS
2/05/84	13:23:20	0053237		NORMAL
2/04/84	10:35:40	0053237		NORMAL
2/03/84	10:43:52	0045150		NORMAL
2/02/84	0:24:34	0045150	267.0	SLIGHTLY EXOPHTHALMUS
2/01/84	0:57:53	0045150		NORMAL
2/01/84	9:26:00	0035743		SLIGHT MOUTH COAT
1/31/84	13:04:24	0035743		MARFED MOUTH COAT
1/31/84	10:59:44	0035743		SLIGHT DEPRESSURE GRASPING REFLEX
1/31/84	9:07:54	0045150	229.0	* NO OBSERVATIONS RECORDED.
1/30/84	0:45:24	0035743	259.0	* NO OBSERVATIONS RECORDED.
1/27/84	10:16:42	0045150	240.0	* NO OBSERVATIONS RECORDED.

A. TAIL 10000002 SPECIES: D SEX: MALE GROUP: 500 M02/AR
 MINOR DATE: 12/12/74 INITIAL HEIGHT: 207.0 GRAMS QUANTITATIVE ID: 08-0000482
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	DESCRIPTOR	WRIGHT	CLINICAL OBSERVATIONS
2/10/74	0:19:32	0045150	319.0	NORMAL
2/13/74	0:01:44	0045150		NORMAL
2/12/74	14:00:02	0040337		NORMAL
2/11/74	9:13:20	0043225		NORMAL
2/10/74	0:30:30	0045150	296.0	NORMAL
2/09/74	0:08:10	0042232		NORMAL
2/09/74	0:15:22	0035743		NORMAL
2/07/74	0:17:24	0045150	274.0	NORMAL
2/06/74	0:29:30	0042232		SLIGHT DEPRESSED GRASPING REFLEX
2/05/74	13:24:39	0064906		SLIGHT RED NOSE MATERIAL
2/05/74	10:36:10	0059406		SLIGHT RED NOSE MATERIAL
2/04/74	10:45:12	0045150		SLIGHT RED NOSE MATERIAL
2/04/74	0:26:50	0045150	226.0	NORMAL
2/02/74	0:59:09	0045150		MODERATE ROUGH COAT, MARKED DARRMHA, SLIGHT RED EYE MATERIAL, SLIGHT RED
2/01/74	9:27:00	0064906		MODERATE ROUGH COAT, MARKED DARRMHA, SLIGHT RED EYE MATERIAL, SLIGHT RED
1/31/74	13:05:06	0035743		MODERATE ROUGH COAT, MARKED DARRMHA, SLIGHT RED EYE MATERIAL, SLIGHT RED
1/31/74	11:02:54	0035743		MODERATE ROUGH COAT, MARKED DARRMHA, SLIGHT RED EYE MATERIAL, SLIGHT RED
1/31/74	9:09:02	0045150	229.0	DEPRESSED GRASPING REFLEX, MULTIPLE VASPU
1/30/74	0:47:16	0035743	259.0	DEPRESSED GRASPING REFLEX, MULTIPLE VASPU
1/27/74	10:18:22	0045150	256.0	DEPRESSED GRASPING REFLEX, MULTIPLE VASPU

ANIMAL ID: 00400504 SPECIES: D SEX: MALE GROUP: 300 MG/KG
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 188.0 GRAMS QUARANTINE ID: 0040000493
 THIS ANIMAL WAS NOT BEING REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT (GRAMS)	CLINICAL OBSERVATIONS
2/14/84	05:35:50	0045130	NORMAL
2/18/84	05:04:35	0045130	NORMAL
2/19/84	14:09:40	0045137	NORMAL
2/11/84	05:14:30	0044265	NORMAL
2/10/84	05:54:35	0045130	NORMAL
2/09/84	05:40:30	0042232	NORMAL
2/04/84	05:11:12	0035743	NORMAL
2/07/84	05:41:30	0045130	NORMAL
2/04/84	05:54:22	0042232	NORMAL
2/05/84	13:21:30	0053257	NORMAL
2/05/84	17:37:20	0053257	NORMAL
2/08/84	10:44:10	0045130	SLIGHT LETHARGY
2/03/84	05:54:42	0045130	SLIGHT IRRITABLE
2/02/84	05:03:15	0045130	SLIGHT MED. JOSE MATERIAL
2/01/84	05:11:14	0035743	NORMAL
1/31/84	13:10:10	0035743	MODERATE MED. NASAL DISCHARGE, SLIGHT IRRITABLE
1/31/84	11:04:02	0035743	SLIGHT HYPERAEMIA, SLIGHT RED NASAL DISCHARGE
1/31/84	05:09:35	0045130	* NO OBSERVATIONS RECORDED.
1/30/84	05:11:34	0035743	* NO OBSERVATIONS RECORDED.
1/27/84	10:22:50	0045130	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00400504 SPECIES: D SEX: MALE GROUP: 300 MG/KG
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 215.0 GRAMS QUARANTINE ID: 0040000508
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT (GRAMS)	CLINICAL OBSERVATIONS
2/19/84	05:27:02	0045130	NORMAL
2/15/84	05:07:10	0045130	SLIGHT INCREASED STABILE REFLEX
2/12/84	14:04:12	0044406	SLIGHT MED. JOSE STAIN
2/11/84	05:22:04	0044406	SLIGHT IRRITABLE
2/10/84	05:31:20	0045130	SLIGHT IRRITABLE
2/09/84	05:43:52	0042232	SLIGHT IRRITABLE
2/08/84	05:22:00	0035743	SLIGHT IRRITABLE
2/07/84	05:29:10	0045130	NORMAL
2/05/84	05:40:00	0042232	SLIGHT IRRITABLE, MODERATE DECREASED GRASPING REFLEX, SLIGHT INCREASED RESPIRATION RATE
2/05/84	15:25:10	0053257	NORMAL
2/05/84	10:39:00	0053257	NORMAL
2/04/84	10:30:52	0045130	SLIGHT INCREASED STABILE REFLEX, SLIGHT DECREASED GRASPING REFLEX
2/03/84	05:45:10	0045130	MODERATE IRRITABLE, SLIGHT FARMINALMOS
2/02/84	05:07:00	0045130	SLIGHT IRRITABLE
2/01/84	11:35:10	0044406	MODERATE IRRITABLE
1/31/84	13:14:50	0035743	MARKED IRRITABLE, SLIGHT RUHUM COAT, SLIGHT RED NASAL DISCHARGE, SLIGHT INCREASED SALIVATION, MODERATE INCREASED RESPIRATION RATE
1/31/84	11:14:20	0035743	SLIGHT HYPERAEMIA
1/31/84	05:11:20	0045130	* NO OBSERVATIONS RECORDED.
1/30/84	05:26:10	0035743	* NO OBSERVATIONS RECORDED.
1/27/84	10:30:00	0045130	* NO OBSERVATIONS RECORDED.

ALLAL 1: 00000512 SPECIES: D SEX: MALE GROUP: 300 MU/AR
 INITIAL WEIGHT: 222.0 GRAMS QUANTITATIVE ID: 004000512
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT	OPERATOR	CLINICAL OBSERVATIONS
2/14/74	0529:54	373.0	0045130	NORMAL
2/13/74	0509:22		0045130	NORMAL
2/12/74	1411:03		0004337	NORMAL
2/11/74	1423:10		0049225	NORMAL
2/10/74	0540:06	344.0	0045130	NORMAL
2/9/74	0545:30		0042232	NORMAL
2/8/74	1424:56		0035743	NORMAL
2/7/74	1351:10	330.0	0045130	NORMAL
2/6/74	0543:24		0042232	SLIGHT
2/5/74	1352:53		0053237	NORMAL
2/4/74	1059:50		0053237	NORMAL
2/3/74	1052:20		0045130	SLIGHT INCREASED RESPIRATION RATE
2/2/74	0546:50	287.0	0045130	SLIGHT EXOPHTHALMOS, SLIGHT INCREASED RESPIRATION RATE
2/1/74	1154:50		0045130	NORMAL
2/01/74	1154:00		0049406	NORMAL
1/31/74	1211:40		0053743	SLIGHT MOUTHED POSTURE, SLIGHT INCREASED RESPIRATION RATE, SLIGHT IRRITABLE
1/31/74	1119:02		0053743	SLIGHT HYPERAETIVE
1/31/74	1121:10	254.0	0045130	* NO OBSERVATIONS RECORDED.
1/30/74	1158:00	211.0	0053743	* NO OBSERVATIONS RECORDED.
1/27/74	1032:30	247.0	0045130	* NO OBSERVATIONS RECORDED.

ALLAL 1: 00000512 SPECIES: D SEX: MALE GROUP: 300 MU/AR
 INITIAL WEIGHT: 210.0 GRAMS QUANTITATIVE ID: 004000510
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT	OPERATOR	CLINICAL OBSERVATIONS
2/14/74	0531:12	374.0	0045130	NORMAL
2/13/74	0510:42		0045130	NORMAL
2/12/74	1413:32		0004337	NORMAL
2/11/74	1424:16		0049225	NORMAL
2/10/74	0542:14	357.0	0045130	NORMAL
2/9/74	0546:00		0042232	NORMAL
2/8/74	0525:12		0053743	NORMAL
2/7/74	0533:34	314.0	0045130	NORMAL
2/6/74	0546:16		0042232	NORMAL
2/5/74	1352:02		0053237	NORMAL
2/4/74	1054:00		0045130	NORMAL
2/3/74	1054:50	268.0	0045130	SLIGHT INCREASED RESPIRATION RATE
2/2/74	1157:14		0049406	SLIGHT MOUTHED POSTURE, SLIGHT IRRITABLE
2/1/74	1319:22		0053743	MODERATE MOUTH COAT, MOUTHED IRRITABLE, MARKED GLEET, ANAL DISCHARGE, MARKED INCREASED SALIVATION, SLIGHT YELLOW PERITONEAL MATERIAL
1/31/74	1122:52		0053743	SLIGHT HYPERAETIVE
1/31/74	1122:52	252.0	0045130	* NO OBSERVATIONS RECORDED.
1/30/74	1100:34	267.0	0053743	* NO OBSERVATIONS RECORDED.
1/27/74	1055:12	250.0	0045130	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 004000530 SPECIES: D SEX: FEMALE GROUP: 300 M0/AG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 101.0 GRAMS QUARANTINE ID: 004000530
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	FLIGHT	REGISTRATION	CLINICAL OBSERVATIONS
2/10/84	01:50:14	0045130	236.0	NORMAL
2/13/84	01:14:20	0045130		NORMAL
2/17/84	14:18:20	0045130		NORMAL
2/17/84	14:28:00	0045130		NORMAL
2/17/84	14:31:14	0045130	241.0	NORMAL
2/17/84	14:41:30	0045130		NORMAL
2/17/84	14:42:22	0045130		NORMAL
2/17/84	14:43:24	0045130		NORMAL
2/17/84	14:44:10	0045130		NORMAL
2/17/84	14:45:10	0045130	213.0	SLIGHT HYPERACTIVE
2/17/84	14:46:22	0045130		NORMAL
2/17/84	14:47:00	0045130		SLIGHT INACTIVE
2/17/84	14:48:10	0045130		SLIGHT INCREASED STABLE REFLEX, SLIGHT HYPERACTIVE
2/17/84	14:49:10	0045130		NORMAL
2/17/84	14:50:10	0045130		SLIGHT MOUTH STAIN
2/17/84	14:51:10	0045130		SLIGHT MOUTH COAT, MODERATE IRRITABLE, SLIGHT INCREASED SALIVATION
2/17/84	14:52:10	0045130		SLIGHT HYPERACTIVE, MODERATE IRRITABLE
2/17/84	14:53:10	0045130		SLIGHT HYPERACTIVITY RECORDED.
2/17/84	14:54:10	0045130		* NO OBSERVATIONS RECORDED.
2/17/84	14:55:10	0045130		* NO OBSERVATIONS RECORDED.
2/17/84	14:56:10	0045130		* NO OBSERVATIONS RECORDED.

ANIMAL ID: 004000530 SPECIES: D SEX: FEMALE GROUP: 300 M0/AG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 105.0 GRAMS QUARANTINE ID: 004000530
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	FLIGHT	REGISTRATION	CLINICAL OBSERVATIONS
2/10/84	01:50:14	0045130	227.0	NORMAL
2/13/84	01:14:20	0045130		NORMAL
2/17/84	14:18:20	0045130		NORMAL
2/17/84	14:28:00	0045130		NORMAL
2/17/84	14:31:14	0045130	217.0	NORMAL
2/17/84	14:41:30	0045130		NORMAL
2/17/84	14:42:22	0045130		NORMAL
2/17/84	14:43:24	0045130		NORMAL
2/17/84	14:44:10	0045130		NORMAL
2/17/84	14:45:10	0045130	210.0	SLIGHT VOCALIZATION
2/17/84	14:46:22	0045130		NORMAL
2/17/84	14:47:00	0045130		NORMAL
2/17/84	14:48:10	0045130		NORMAL
2/17/84	14:49:10	0045130	198.0	SLIGHT EXUPHTALMUS
2/17/84	14:50:10	0045130		NORMAL
2/17/84	14:51:10	0045130		SLIGHT MOUTH DISCHARGE, SLIGHT IRRITABLE
2/17/84	14:52:10	0045130		NORMAL
2/17/84	14:53:10	0045130	107.0	* NO OBSERVATIONS RECORDED.
2/17/84	14:54:10	0045130	109.0	* NO OBSERVATIONS RECORDED.
2/17/84	14:55:10	0045130	174.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000501 SPECIES: D SEX: FEMALE GROUP: 300 M/M/G
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 175.0 GRAMS QUANTITATIVE ID: UR4000561
 THIS ANIMAL HAS NOT BEEN RECOVERED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	OPERATION	WEIGHT GRAMS	CLINICAL OBSERVATIONS
2/14/84	0447:10	0045130	224.0	NORMAL
2/13/84	0420:34	0045130		SLIGHT HYPERACTIVE
2/12/84	1416:04	000337		NORMAL
2/11/84	4322:58	004225		NORMAL
2/10/84	0753:46	0045130	225.0	NORMAL
2/09/84	0735:10	004222		NORMAL
2/08/84	0744:42	0045743		NORMAL
2/07/84	0744:32	0045130	215.0	SLIGHT IRRITABLE, SLIGHT EXOPHTHALMOS
2/06/84	4303:24	004222		NORMAL
2/05/84	1324:02	005237		MODERATE HYPERACTIVE
2/04/84	1043:26	005237		MODERATE INCREASED STABILE REFLEX, SLIGHT HYPERACTIVE, SLIGHT INCREASED RESPIRATION RATE
2/03/84	4110:24	0045130	198.0	SLIGHT INCREASED STABILE REFLEX
2/02/84	4225:02	0045130		NORMAL INCREASED STABILE REFLEX, SLIGHT NFO NASAL DISCHARGE, SLIGHT IRRITABLE
2/01/84	1217:12	0049405		SLIGHT NFO NASAL DISCHARGE, SLIGHT HYPERACTIVE
1/31/84	1330:06	0035743		* NO OBSERVATIONS RECORDED.
1/31/84	1144:20	0035743	175.0	* NO OBSERVATIONS RECORDED.
1/31/84	4116:00	0045130	197.0	* NO OBSERVATIONS RECORDED.
1/30/84	4116:32	0035743	197.0	* NO OBSERVATIONS RECORDED.
1/27/84	1055:34	0045130	197.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000506 SPECIES: D SEX: FEMALE GROUP: 300 M/M/G
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 152.0 GRAMS QUANTITATIVE ID: UR4000560
 DEATH DATE: 1/31/84 TIME: 1434:48 REASON: DEATH

OBSERVATIONS

DATE	TIME	OPERATION	WEIGHT GRAMS	CLINICAL OBSERVATIONS
1/31/84	1434:48	0035743		DEATH
1/31/84	1351:22	0035743		PROSTRATE, MARKED Twitching, MARKED GASPING, MARKED INCREASED SALIVATION, MARKED CLEAR NASAL DISCHARGE
1/31/84	1156:22	0049405		SLIGHT INACTIVE, SLIGHT HYPERACTIVE, MARKED DECREASED GRASPING REFLEX, SLIGHT CLEAR MOUTH MATERIAL
1/31/84	4116:50	0045130	195.0	* NO OBSERVATIONS RECORDED.
1/30/84	4116:00	0035743	177.0	* NO OBSERVATIONS RECORDED.
1/27/84	1055:14	0045130	199.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 084000570 SPECIES: D SEX: FEMALE GROUP: 360 MU/AG
 FLIGHT DATE: 12/05/84 INITIAL WEIGHT: 149.0 GRAMS QUANTITATIVE ID: 084000570
 FLIGHT DATE: 2/01/84 TIME: 12:20:30 REASON: DEAD
 OBSERVATIONS

DATE	TIME	WEIGHT	GENERAL	INTERNAL	REPRODUCTION
2/01/84	12:20:30	0064906	DEATH		
1/31/84	14:56:26	0033743	MURKIN		
1/31/84	15:55:16	0064906	MARKED INCREASED STAPLE REFLEX, MARKED URINE ABDOMEN, MARKED INCREASED SALIVATION, MARKED CLEAR NASAL DISCHARGE, MARKED RED EYE MATERIAL, MARKED DECREASED KIDNEY REFLEX, MARKED TAILCING, MARKED INCREASED RESPIRATION SLIGHT INCREASED POSTURE, SLIGHT THERMUS, SLIGHT RED EYE MATERIAL, SLIGHT RED MOUTH MATERIAL, SLIGHT RED NASAL DISCHARGE, MODERATE EXOPHTHALMOS		
1/31/84	11:59:50	0064906			
1/31/84	9:18:44	0045130	154.0		
1/30/84	9:20:16	0033743	176.0		
1/27/84	10:59:50	0045130	167.0		

ANIMAL ID: 084000572 SPECIES: D SEX: FEMALE GROUP: 360 MU/AG
 FLIGHT DATE: 12/05/84 INITIAL WEIGHT: 175.0 GRAMS QUANTITATIVE ID: 084000572
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.
 OBSERVATIONS

DATE	TIME	WEIGHT	GENERAL	INTERNAL	REPRODUCTION
2/10/84	05:42:20	0045130	276.0		
2/13/84	05:21:44	0045130			
2/12/84	14:16:30	0000337			
2/11/84	9:58:42	0044265	257.0		
2/10/84	8:56:54	0045130			
2/09/84	05:56:42	0042232			
2/08/84	05:55:00	0033743			
2/07/84	05:44:24	0045130	241.0		
2/06/84	9:07:36	0042232			
2/05/84	13:24:22	0053257			
2/05/84	10:43:46	0053257			
2/04/84	11:02:34	0045130			
2/03/84	9:15:20	0045130	204.0		
2/02/84	9:26:50	0045130			
2/01/84	12:21:30	0064906			
1/31/84	13:57:50	0033743			

DEATH
 MURKIN
 MARKED INCREASED STAPLE REFLEX, MARKED URINE ABDOMEN, MARKED
 INCREASED SALIVATION, MARKED CLEAR NASAL DISCHARGE, MARKED RED EYE MATERIAL,
 MARKED DECREASED KIDNEY REFLEX, MARKED TAILCING, MARKED
 INCREASED RESPIRATION
 SLIGHT INCREASED POSTURE, SLIGHT THERMUS, SLIGHT RED EYE MATERIAL, SLIGHT RED
 MOUTH MATERIAL, SLIGHT RED NASAL DISCHARGE, MODERATE EXOPHTHALMOS
 INCREASED RESPIRATION
 SLIGHT INCREASED POSTURE, SLIGHT THERMUS, SLIGHT RED EYE MATERIAL, SLIGHT RED
 MOUTH MATERIAL, SLIGHT RED NASAL DISCHARGE, MODERATE EXOPHTHALMOS
 SLIGHT EXOPHTHALMOS
 SLIGHT DECREASED GRASPING REFLEX
 SLIGHT DECREASED GRASPING REFLEX
 SLIGHT INACTIVE, SLIGHT DECREASED GRASPING REFLEX
 SLIGHT INACTIVE, SLIGHT RED MUSE STAIN
 MODERATE INACTIVE, MARKED RED EYE MATERIAL, MODERATE RED MUSE STAIN, MARKED
 RED MOUTH STAIN, MODERATE YELLOW PERIARIAL STAIN, MODERATE TAILCING
 MARKED MOUTH COAT, MARKED INCREASED STAPLE REFLEX, MARKED THERMUS, MARKED
 INCREASED SALIVATION, MARKED CLEAR NASAL DISCHARGE, MODERATE
 DECREASED GRASPING REFLEX, MARKED TACHYPNEA
 SLIGHT INACTIVE, SLIGHT INACTIVE, SLIGHT RED MOUTH MATERIAL, SLIGHT RED
 NASAL DISCHARGE, MARKED DECREASED GRASPING REFLEX
 * NO OBSERVATIONS RECORDED.
 * NO OBSERVATIONS RECORDED.
 * NO OBSERVATIONS RECORDED.

ANIMAL ID: 84000504 SPECIES: D SEX: FEMALE GROUP: 300 MU/KG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 157.0 GRAMS QUANTITATIVE ID: U84000504
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT	DEGLASS	180AUS1	CLINICAL OBSERVATIONS
2/14/84	0:51:52	0445130	235.0		NORMAL
2/13/84	0:24:20	0445130			NORMAL
2/12/84	14:12:14	0400337			NORMAL
2/11/84	4:31:52	044225			NORMAL
2/10/84	4:00:04	0445130	220.0		NORMAL
2/09/84	0:50:40	0442252			NORMAL
2/08/84	0:37:22	0435743			NORMAL
2/07/84	0:57:30	0445130	208.0		NORMAL
2/06/84	4:12:08	0442252			SLIGHT EXOPATHALMOS, SLIGHT INCREASED RESPIRATION RATE
2/05/84	13:24:10	0453237			NORMAL
2/05/84	10:44:40	0453237			NORMAL
2/04/84	11:04:26	0445130			NORMAL
2/03/84	4:22:54	0445130	161.0		NORMAL
2/02/84	4:29:56	0445130			NORMAL
2/01/84	12:50:56	0464406			SLIGHT RED NOSE STAIN
1/31/84	13:38:50	0435743			SLIGHT MOUTH COAT, SLIGHT IRRITABLE, MODERATE RED NASAL DISCHARGE, MODERATE INCREASED RESPIRATION RATE, SLIGHT INCREASED SIATILE REFLEX
1/31/84	12:10:40	0435743			SLIGHT MYOFACTIVE, SLIGHT RED NASAL DISCHARGE, SLIGHT DEPRESSED GRASPING REFLEX
1/31/84	4:20:20	0445130	159.0		* NO OBSERVATIONS RECORDED.
1/30/84	4:25:08	0435743	180.0		* NO OBSERVATIONS RECORDED.
1/27/84	11:07:12	0445130	175.0		* NO OBSERVATIONS RECORDED.

ANIMAL ID: 08000590 SPECIES: D SEX: FEMALE GROUP: 300 MG/KG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 147.0 GRAMS QUARANTINE ID: 08000590
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT (GRAMS)	CLINICAL OBSERVATIONS
2/13/84	07:53:26	0045130	213.0 NORMAL
2/13/84	07:25:40	0045130	NORMAL
2/17/84	14:17:32	0003337	NORMAL
2/11/84	04:59:20	0084225	NORMAL
2/10/84	04:01:50	0045130	206.0 NORMAL
2/03/84	07:59:46	0042232	NORMAL
2/08/84	07:58:30	0035743	NORMAL
2/07/84	07:59:12	0045130	199.0 NORMAL
2/04/84	04:14:14	0042232	NORMAL
2/05/84	13:24:26	0055257	SLIGHT INACTIVE, SLIGHT DEPRESSED GRASPING REFLEX
2/05/84	10:45:04	0055257	SLIGHT INACTIVE, SLIGHT DEPRESSED GRASPING REFLEX
2/04/84	11:05:46	0045130	SLIGHT INACTIVE, SLIGHT DEPRESSED GRASPING REFLEX
2/03/84	04:25:26	0045130	SLIGHT EXOPHTHALMOS, SLIGHT DEPRESSED GRASPING REFLEX, SLIGHT INACTIVE
2/02/84	04:54:50	0045130	NORMAL
2/01/84	12:55:10	0064406	NORMAL
1/31/84	13:42:34	0035743	MODERATE MOUTH LOAT, MODERATE IRRITABLE, MARKED RED NASAL DISCHARGE, MODERATE DEPRESSED RIGHTING REFLEX, MODERATE CHEWING, SLIGHT INCREASED RESPIRATION RATE
1/31/84	12:16:00	0035743	SLIGHT MUNCHED POSTURE, SLIGHT RED NASAL DISCHARGE
1/31/84	04:21:00	0045130	* NO OBSERVATIONS RECORDED.
1/30/84	04:27:52	0035743	* NO OBSERVATIONS RECORDED.
1/27/84	11:09:56	0045130	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 08000593 SPECIES: D SEX: FEMALE GROUP: 300 MG/KG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 160.0 GRAMS QUARANTINE ID: 08000593
 REMOVAL DATE: 2/02/84 TIME: 13:30:44 REASON: PHYSICAL ABNORMALITY

OBSERVATIONS

DATE	TIME	WEIGHT (GRAMS)	CLINICAL OBSERVATIONS
2/02/84	13:58:44	0064406	MISUSED, REMOVED FROM STUDY
1/31/84	04:21:46	0045130	* NO OBSERVATIONS RECORDED.
1/30/84	04:25:12	0035743	* NO OBSERVATIONS RECORDED.
1/27/84	11:11:02	0045130	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000051 SPECIES: D SEX: MALE GROUP: 000 M0/KG
 BIRTH DATE: 12/12/73 INITIAL WEIGHT: 212.0 GRAMS QUANTITATIVE ID: 000000051
 ACQUALED DATE: 2/01/84 TIME: 8:01:24 REASON: DEAD

OBSERVATIONS

DATE	TIME	WEIGHT	GENERAL OBSERVATIONS	REMARKS
2/01/84	8:01:24	0035743	DEATH	
1/31/84	13:52:59	0049406	MARKED IRREVERSIBLE SLIGHT RED MOUTH STAIN, SLIGHT KNOCK COAT	
1/31/84	10:45:10	0035743	SLIGHT IRREVERSIBLE SLIGHT DECREASED GRASPING REFLEX	
1/31/84	9:23:26	0045150	* NO OBSERVATIONS RECORDED.	
1/30/84	8:53:24	0035743	* NO OBSERVATIONS RECORDED.	
1/27/84	10:05:50	0045150	* NO OBSERVATIONS RECORDED.	

ANIMAL ID: 00000070 SPECIES: D SEX: MALE GROUP: 000 M0/KG
 BIRTH DATE: 12/12/73 INITIAL WEIGHT: 202.0 GRAMS QUANTITATIVE ID: 000000070
 TAIL ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT	GENERAL OBSERVATIONS	REMARKS
2/17/84	8:15:23	0045150	NORMAL	
2/17/84	7:59:29	0045150	NORMAL	
2/12/84	10:03:24	0000337	NORMAL	
2/11/84	9:10:22	0049225	NORMAL	
2/10/84	8:27:10	0045150	NORMAL	
2/09/84	8:36:20	0042232	NORMAL	
2/08/84	8:12:04	0035743	NORMAL	
2/07/84	8:13:32	0045150	NORMAL	
2/06/84	8:25:00	0042232	SLIGHT VOCALIZATION	
2/05/84	13:22:54	0053237	NORMAL	
2/05/84	10:55:10	0053237	NORMAL	
2/04/84	10:42:32	0045150	SLIGHT KNOCK COAT, SLIGHT IRREVERSIBLE	
2/03/84	8:19:32	0045150	SLIGHT KNOCK COAT	
2/02/84	8:55:02	0045150	SLIGHT RED MOUTH STAIN	
2/01/84	9:22:46	0035743	SLIGHT KNOCK COAT, SLIGHT RED MOUTH STAIN, SLIGHT INCREASED RESPIRATORY RATE	
1/31/84	13:55:00	0035743	MARKED KNOCK COAT, MARKED RED MOUTH STAIN, MARKED RED MOUTH STAIN, SLIGHT DECREASED GRASPING REFLEX, MODERATE DECREASED GRASPING REFLEX, MARKED IRREVERSIBLE	
1/31/84	10:57:46	0035743	NORMAL	
1/31/84	9:22:29	0045150	* NO OBSERVATIONS RECORDED.	
1/30/84	8:45:32	0035743	* NO OBSERVATIONS RECORDED.	
1/27/84	10:10:20	0045150	* NO OBSERVATIONS RECORDED.	

ANIMAL ID: 00400492 SPECIES: D SEX: MALE GROUP: 404 M0/K6
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 211.0 GRAMS QUANTITATIVE ID: 004000493
 THIS ANIMAL WAS NOT REC'D, REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT (GRAMS)	HEIGHT (MM)	CLINICAL OBSERVATIONS
2/14/84	01:00:02	0045130	331.0	NORMAL
2/13/84	01:02:00	0045130		NORMAL
2/12/84	14:04:52	0045130		NORMAL
2/11/84	01:04:02	0044225		NORMAL
2/10/84	01:31:00	0045130	301.0	NORMAL
2/09/84	01:34:20	0042232		NORMAL
2/08/84	01:15:04	0035743		NORMAL
2/07/84	01:14:10	0045130	249.0	NORMAL
2/06/84	01:30:32	0042232		NORMAL
2/05/84	13:23:04	0035237		NORMAL
2/04/84	10:35:20	0035237		NORMAL
2/03/84	10:44:00	0045130		NORMAL
2/02/84	01:24:22	0045130	202.0	NORMAL
2/01/84	01:29:42	0045130		NORMAL
1/31/84	01:29:14	0035743		SLIGHT IRITABLE
1/31/84	11:03:30	0035743		SLIGHT MOUCH COAT, SLIGHT RED NOSE MATERIAL, SLIGHT INCREASED RESPIRATION RATE
1/31/84	01:26:08	0045130	209.0	SLIGHT INACTIVE, SLIGHT JERKED GRASPING REFLEX
1/30/84	01:47:33	0035743	203.0	* NO OBSERVATIONS RECORDED.
1/27/84	10:14:50	0045130	233.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00400492 SPECIES: D SEX: MALE GROUP: 404 M0/K6
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 105.0 GRAMS QUANTITATIVE ID: 004000492
 THIS ANIMAL WAS NOT REC'D, REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT (GRAMS)	HEIGHT (MM)	CLINICAL OBSERVATIONS
2/14/84	01:22:34	0045130	349.0	NORMAL
2/13/84	01:01:12	0045130		SLIGHT MOUCH COAT, SLIGHT INACTIVE
2/12/84	14:06:10	0045130		NORMAL
2/11/84	01:17:30	0044225		NORMAL
2/10/84	01:31:20	0045130	316.0	NORMAL
2/09/84	01:39:40	0042232		NORMAL
2/08/84	01:17:24	0035743		NORMAL
2/07/84	01:20:12	0045130	240.0	NORMAL
2/06/84	01:32:52	0042232		NORMAL
2/05/84	13:20:12	0035237		NORMAL
2/04/84	10:36:54	0035237		SLIGHT INACTIVE
2/03/84	10:47:14	0045130	234.0	SLIGHT INACTIVE
2/02/84	01:31:50	0045130		SLIGHT INACTIVE
2/01/84	01:31:44	0035743		SLIGHT IRITABLE, SLIGHT RED NOSE MATERIAL, SLIGHT BRONCHIAL MATERIAL
1/31/84	14:01:20	0035743		Moderate increased stable reflex, moderate rough coat, moderate irritable, moderate red nasal discharge, moderate diarrhea, slight salivating, slight depressed righting reflex, moderate increased respiration rate
1/31/84	11:07:20	0035743		SLIGHT RED NASAL DISCHARGE
1/31/84	01:20:50	0045130	214.0	* NO OBSERVATIONS RECORDED.
1/30/84	01:20:32	0035743	200.0	* NO OBSERVATIONS RECORDED.
1/27/84	10:22:00	0045130	215.0	* NO OBSERVATIONS RECORDED.

A.I.L.C. ID: 85J0643 SPECIES: D SEX: MALE GROUP: 454 44/K6
 INITIAL DATE: 12/12/43 INITIAL WEIGHT: 173.0 GRAMS QUANTITATIVE ID: 264000493
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

03SERVAIU:13

DATE	TIME	GENERAL	WRIGHT	CLINICAL OBSERVATIONS
2/14/44	05:23:04	0043130	169.0	NORMAL
2/14/44	05:04:24	0043130		NORMAL
2/15/44	14:06:30	0040537		NORMAL
2/11/44	05:17:58	0043225		NORMAL
2/16/44	05:35:56	0043130	341.0	NORMAL
2/09/44	05:40:08	0042232		NORMAL
2/08/44	05:17:44	0035743		NORMAL
2/07/44	05:20:46	0043130	322.0	NORMAL
2/06/44	05:35:40	0042232		NORMAL
2/05/44	15:24:24	0053237		NORMAL
2/05/44	10:57:10	0053237		NORMAL
2/04/44	10:47:46	0043130		NORMAL
2/03/44	05:35:22	0043130	271.0	MODERATE DEPRESSED HIGHING REFLEX
2/02/44	05:02:42	0043130		NORMAL
2/01/44	05:40:02	0035743		NORMAL
1/31/44	14:02:50	0045743		MODERATE INCREASED STARTLE REFLEX, SLIGHT HUNGER POSTURE, HUNGER CHEATING
1/31/44	11:08:10	0035743		SLIGHT HYPERALGIA
1/31/44	05:27:20	0043130	216.0	* NO OBSERVATIONS RECORDED.
1/30/44	05:31:04	0035743	254.0	* NO OBSERVATIONS RECORDED.
1/27/44	10:22:24	0043130	219.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 0000504 SPECIES: D SEX: MALE GROUP: 004 M/KG
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 212.0 GRAMS QUANTITATIVE ID: 000000004
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

DO ST RAITUNŠ

DATE	TIME	DEFLECTION	WEIGHT KILOGRAMS	CLINICAL OBSERVATIONS
2/14/44	05:06:30	0043130	451.0	NORMAL
2/14/44	05:06:20	0043130		NORMAL
2/14/44	14:07:50	0060337		NORMAL
2/11/44	05:21:14	0043225		NORMAL
2/10/44	05:37:24	0043130	521.0	NORMAL
2/09/44	05:22:30	0042232		NORMAL
2/08/44	05:11:52	0035744		NORMAL
2/07/44	05:27:50	0043130	322.0	NORMAL
2/06/44	05:36:20	0042232		SLIGHT MOUTH COAT
2/05/44	13:25:02	0052237		NORMAL
2/04/44	10:34:52	0053237		SLIGHT MOUTH COAT
2/04/44	10:20:10	0043130		SLIGHT MOUTH COAT
2/03/44	05:11:52	0043130	207.0	SLIGHT MOUTH COAT
2/02/44	05:04:00	0060400		MAYBE MOUTH COAT
2/01/44	11:21:32	0033743		MAYBE SOMNOLENCE, MURDERATE MOUTH COAT, SLIGHT INCREASED STABILE REFLEX, SLIGHT RED NASAL DISCHARGE, SLIGHT DEPRESSED WIGHTING REFLEX, SLIGHT INCREASED RESPIRATION RATE.
1/31/44	14:07:10			SLIGHT DEPRESSED WIGHTING REFLEX, SLIGHT RED NASAL DISCHARGE
1/31/44	11:14:35	0033743		SLIGHT OBSERVATIONS REQUIRED.
1/31/44	05:29:20	0043130	257.0	* NO OBSERVATIONS REQUIRED.
1/30/44	05:35:02	0033743	270.0	* NO OBSERVATIONS REQUIRED.
1/27/44	10:28:00	0043130	240.0	* NO OBSERVATIONS REQUIRED.

AIRMAIL ID: 04000513
 REPAIR DATE: 12/12/93
 INITIAL WEIGHT: 192.0 GRAMS
 TIME: 4:00:20
 SPECIES: D SEX: M AGE: ADULT
 SEASON: DEAD
 GROUP: 404 M/VAG
 QUARANTINE ID: 084000513

13 SEP 1964

DATE	TIME	OPERATOR	ASIGHT	REMARKS
2/01/84	3:06:20	0035743		DEATH
1/31/84	14:10:50	0035743		ARMED, MARKED ST. VILE REFLEX, MARKED JUMPING, SLIGHT RIGID COAT, MARKED IRRITABLE, MARKED NEW MOUTH STAIN, MARKED CLEAR NASAL DISCHARGE, MODERATE INCREASED RESPIRATION RATE, MODERATE SUBJUNCTIVE, MODERATE MILDENED PUPILS, SLIGHT HYPEREMIA, SLIGHT IMPAIRMENT, SLIGHT NEW MOUTH STAIN
1/31/84	11:12:44	0064006		* NO OBSERVATIONS RECORDED.
1/31/84	4:50:20	0043150	22.0	* NO OBSERVATIONS RECORDED.
1/31/84	05:42:30	0035743	23.0	* NO OBSERVATIONS RECORDED.
1/27/84	10:52:04	0043150	26.0	* NO OBSERVATIONS RECORDED.

INITIAL IN: 5000516 SPECIES: D SEX: MALE GROUP: 400 H06/K6
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 102.0 GMS UJAHARTINE ID: 084900510
 THIS ANIMAL WAS NOT BEEN REMOVED FROM THE EXPERIMENT.

U.S. CRYVAI IUN5

DATE	TIME	OPERATOR	WEIGHT TENSILE	CLINICAL OBSERVATIONS
2/14/54	02:50:40	0043130	514.0	NORMAL
2/13/54	02:51:04	0043130		NORMAL
2/12/54	14:13:24	000337		NORMAL
2/11/54	02:42:00	0043225		NORMAL
2/10/54	02:41:30	0043130	278.0	NORMAL
2/09/54	02:46:16	0042232		NORMAL
2/08/54	02:44:00	0033743		NORMAL
2/07/54	02:32:52	0043130	253.0	NORMAL
2/06/54	02:44:52	0042232		NORMAL
2/05/54	13:26:32	0033737		SLIGHT MOUTH LOAT
2/04/54	10:40:10	0033257		SLIGHT MOUTH LOAT
2/03/54	10:21:22	0043130		SLIGHT MOUTH LOAT
2/02/54	02:40:00	0043130	214.0	NORMAL
2/01/54	02:09:54	0043130		NORMAL
2/01/54	11:26:24	0043009		SLIGHT INCREASED STAPLE REFLEX, SLIGHT MOUTH LOAT
1/31/54	14:14:04	0033743		INCREASED RESPIRATION RATE
1/31/54	11:22:04	0033743		SLIGHT RED NASAL DISCHARGE
1/31/54	02:51:14	0043130	185.0	* NO OBSERVATIONS RECORDED.
1/30/54	02:57:43	0043743	216.0	* NO OBSERVATIONS RECORDED.
1/27/54	02:45:00	0043130	192.0	* NO OBSERVATIONS RECORDED.

ALLAL 00000527 SPECIES: D SEX: MALE GROUP: 404 H0/K0
 BIRTH DATE: 12/12/74 INITIAL WEIGHT: 104.0 GRAMS QUANTITATIVE ID: 00000527
 THIS ANIMAL WAS NOT RECD. REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	OPERATION	WEIGHT GRAMS	CLINICAL OBSERVATIONS
2/14/74	053304	0064406	370.0	SLIGHT IRRITABLE
2/18/74	211142	0064406		SLIGHT IRRITABLE
2/18/74	1411402	0064406		SLIGHT IRRITABLE
2/11/74	052511	0064406		SLIGHT IRRITABLE
2/10/74	054310	0045150	331.0	NORMAL
2/9/74	054310	0042252		SLIGHT IRRITABLE
2/9/74	054310	0035743		NORMAL
2/9/74	053532	0045150	304.0	IRRITABLE, SLIGHT INCREASED RESPIRATION RATE
2/9/74	053532	0045150		SLIGHT
2/9/74	053532	0045150		NORMAL
2/9/74	053532	0045150		NORMAL
2/9/74	053532	0045150		SLIGHT ROUGH COAT
2/9/74	053532	0045150	259.0	SLIGHT ROUGH COAT
2/9/74	053532	0045150		NORMAL
2/9/74	053532	0045150		SLIGHT IRRITABLE, SLIGHT INCREASED SIANTLE REFLEX
2/9/74	053532	0045150		PARADOX IRRITABLE, MODERATE CATALEPSY
2/9/74	053532	0045150		SLIGHT JUMPING, SLIGHT RED NASAL DISCHARGE, SLIGHT IREMURS
2/9/74	053532	0045150	211.0	* NO OBSERVATIONS RECORDED.
2/9/74	053532	0045150	243.0	* NO OBSERVATIONS RECORDED.
2/9/74	053532	0045150	213.0	* NO OBSERVATIONS RECORDED.

ALLAL 00000527 SPECIES: D SEX: FEMALE GROUP: 404 H0/K0
 BIRTH DATE: 12/05/74 INITIAL WEIGHT: 177.0 GRAMS QUANTITATIVE ID: 00000527
 THIS ANIMAL WAS NOT RECD. REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	OPERATION	WEIGHT GRAMS	CLINICAL OBSERVATIONS
2/14/74	053320	0064406	258.0	MARKEU ALOPECIA HEAD
2/13/74	051208	0064406		MARKEU ALOPECIA HEAD
2/12/74	1411410	0064406		MARKEU ALOPECIA HEAD
2/11/74	052534	0064406		MARKEU ALOPECIA HEAD
2/10/74	054310	0045150	230.0	MARKEU ALOPECIA HEAD
2/10/74	054310	0042252		MARKEU ALOPECIA HEAD
2/10/74	054310	0035743		MARKEU ALOPECIA HEAD, SLIGHT DIARRHEA
2/10/74	053532	0045150	224.0	MARKEU ALOPECIA HEAD
2/10/74	053532	0042252		MARKEU ALOPECIA HEAD, SLIGHT HYPERACTIVE
2/10/74	053532	0045150		MARKEU ALOPECIA HEAD
2/10/74	053532	0045150		MARKEU ALOPECIA HEAD
2/10/74	053532	0045150		SLIGHT INCREASED STABLE REFLEX, SLIGHT INCREASED RESPIRATION RATE, MARKEU ALOPECIA SCAR HEAD
2/10/74	053532	0045150		SLIGHT INCREASED STABLE REFLEX, SLIGHT ALOPECIA SCAR HEAD
2/10/74	053532	0045150	143.0	NORMAL
2/10/74	053532	0045150		SLIGHT ROUGH COAT, SLIGHT RED NOSE MATERIAL, SLIGHT RED MOUTH STAIN, MODERATE YELLOW MENTAL STAIN, SLIGHT TREMORS
2/10/74	053532	0045150		MODERATE ROUGH COAT, SLIGHT MOUTH STAIN, SLIGHT RED NASAL DISCHARGE,
2/10/74	053532	0045150		SLIGHT IRRITABLE
2/10/74	053532	0045150		SLIGHT HYPERACTIVE, SLIGHT IMPITABLE
2/10/74	053532	0045150	174.0	* NO OBSERVATIONS RECORDED.
2/10/74	053532	0045150	147.0	* NO OBSERVATIONS RECORDED.
2/10/74	053532	0045150	108.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 08400552 SPECIES: D SEX: FEMALE GROUP: 404 M/4K
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 157.0 GRAMS QUANTATIVE ID: 08400552
 DEATH DATE: 2/02/84 TIME: 7:45:58 REASON: DEAD

OBSERVATIONS

DATE	TIME	WEIGHT	CLINICAL OBSERVATIONS
2/02/84	7:45:58	0000130	DEATH
2/01/84	12:06:42	0000000	MODERATE SOOTINESS, MARKED RED NASAL DISCHARGE, MARKED RED MOUTH STAIN, MARKED YELLOW PERIANAL STAIN, MODERATE IPROMPS
1/31/84	14:01:50	005743	MODERATE MOUTH COAT, MODERATE IPROMPS, SLIGHT RED NASAL DISCHARGE, MODERATE INCREASED SALIVATION, MODERATE TWITCHING, SLIGHT DECREASED NIGHTING REFLEX
1/31/84	11:53:40	0049406	SLIGHT HYPERAETIVE, SLIGHT CLEAR MOUTH MATERIAL, SLIGHT DECREASED GRASPING REFLEX
1/31/84	9:55:24	0000130	* NO OBSERVATIONS RECORDED.
1/30/84	9:08:04	005743	* NO OBSERVATIONS RECORDED.
1/27/84	10:40:50	0000130	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 08400552 SPECIES: D SEX: FEMALE GROUP: 404 M/4K
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 156.0 GRAMS QUANTATIVE ID: 08400552
 THIS ANIMAL HAS NOT BEEN RECORDED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT	CLINICAL OBSERVATIONS
2/18/84	8:40:22	0000130	NORMAL
2/17/84	8:20:08	0000130	NORMAL
2/16/84	14:15:46	0000130	NORMAL
2/15/84	9:52:00	004225	NORMAL
2/10/84	0:32:04	0000130	NORMAL
2/09/84	2:50:22	0000130	NORMAL
2/08/84	0:32:52	0035743	NORMAL
2/07/84	0:33:20	0000130	NORMAL
2/06/84	9:03:20	0000130	NORMAL
2/05/84	13:27:50	005257	NORMAL
2/04/84	10:03:14	005257	NORMAL
2/03/84	13:00:52	0000130	NORMAL
2/02/84	9:04:02	0000130	NORMAL
2/01/84	9:24:10	0000130	NORMAL
1/31/84	12:15:54	0000000	NORMAL
1/31/84	14:26:04	0035743	SLIGHT HUNCHED POSTURE, SLIGHT RED NASAL DISCHARGE, SLIGHT INCREASED SALIVATION, SLIGHT IRRITABLE, MODERATE INCREASED RESPIRATION RATE, SLIGHT YELLOW PERIANAL STAIN
1/31/84	11:41:52	0035743	SLIGHT RED NASAL DISCHARGE, SLIGHT HYPERAETIVE
1/30/84	9:56:22	0000130	* NO OBSERVATIONS RECORDED.
1/27/84	9:13:14	0035743	* NO OBSERVATIONS RECORDED.
1/27/84	10:50:00	0000130	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 84000571 SPECIES: D SEX: FEMALE GROUP: 404 MB/AG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 147.0 GRAMS QUANTITATIVE ID: 08400055/
 REMOVAL DATE: 2/01/84 TIME: 7:59:20 REASON: DEAD

OBSERVATIONS

DATE	TIME	OPERATOR	WEIGHT	CLINICAL OBSERVATIONS
2/01/84	7:59:20	0035743		DEATH
1/31/84	14:50:10	0069406		MARKED MUNCHED POSTURE, MARKED TITILTING, MARKED INCREASED STARTLE REFLEX, PROSTRATE, MARKED INCREASED SALIVATION, MODERATE DEPRESSED GRASPING REFLEX, MARKED DEPRESSED GRASPING REFLEX
1/31/84	11:44:54	0049406		SLIGHT MUNCHED POSTURE, SLIGHT JUMPING, SLIGHT CLEAR MOUTH MATERIAL, SLIGHT DEPRESSED GRASPING REFLEX
1/31/84	9:57:24	0045130	150.0	* NO OBSERVATIONS RECORDED.
1/30/84	9:14:12	0035743	105.0	* NO OBSERVATIONS RECORDED.
1/27/84	10:52:36	0045130	155.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 84000571 SPECIES: D SEX: FEMALE GROUP: 404 MB/AG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 175.0 GRAMS QUANTITATIVE ID: 08400057/
 REMOVAL DATE: 1/31/84 TIME: 15:23:56 REASON: DEAD

OBSERVATIONS

DATE	TIME	OPERATOR	WEIGHT	CLINICAL OBSERVATIONS
1/31/84	15:23:56	0035743		DEATH
1/31/84	14:57:14	0035743		MURKING
1/31/84	12:02:54	0069406		SLIGHT JUMPING, SLIGHT OLD MOUTH MATERIAL, MARKED DEPRESSED GRASPING REFLEX
1/31/84	9:54:20	0045130	177.0	* NO OBSERVATIONS RECORDED.
1/30/84	9:20:50	0035743	201.0	* NO OBSERVATIONS RECORDED.
1/27/84	11:00:44	0045130	192.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000578 SPECIES: D SEX: FEMALE GROUP: 404 MG/KC
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 101.0 GRAMS QUARANTINE ID: 00000570
 REMOVAL DATE: 1/31/84 TIME: 14:11:00 REASON: DEAD

OBSERVATIONS

DATE TIME OPERATOR WEIGHT CLINICAL OBSERVATIONS

1/31/84 10:11:00 0035743 DEATH
 1/31/84 14:30:02 0069006 MARKED ROUGH COAT, MARKED TWITCHING, MARKED LALATIVE, MODERATE RED
 NASAL DISCHARGE, SLIGHT INCREASED SALIVATION, SLIGHT UNLIE ARJOREN, MARKED
 DECREASED RIGHTING REFLEX, MODERATE DEPRESSED GRASPING REFLEX
 SLIGHT JUMPING, SLIGHT HYPERACTIVE, SLIGHT RED NASAL DISCHARGE
 1/31/84 12:07:44 0035743 * NO OBSERVATIONS RECORDED.
 1/31/84 9:33:10 0045130 159.0
 1/30/84 9:23:20 0035743 169.0 * NO OBSERVATIONS RECORDED.
 1/27/84 11:05:04 0045130 170.0 * NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000579 SPECIES: D SEX: FEMALE GROUP: 404 MG/KC
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 179.0 GRAMS QUARANTINE ID: 00000579
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE TIME OPERATOR WEIGHT CLINICAL OBSERVATIONS

2/19/84 0:50:00 0045130 235.0 NORMAL
 2/13/84 0:22:30 0045130 NORMAL
 2/12/84 14:15:40 0000357 NORMAL
 2/11/84 9:30:50 0045225 NORMAL
 2/10/84 0:20:32 0045130 231.0 NORMAL
 2/09/84 0:57:10 0042232 NORMAL
 2/08/84 0:50:14 0035743 NORMAL
 2/07/84 0:40:06 0045130 226.0 NORMAL
 2/06/84 9:00:20 0042232 NORMAL
 2/05/84 13:20:40 0053257 NORMAL
 2/05/84 10:40:10 0053257 NORMAL
 2/04/84 11:03:24 0045130 204.0 NORMAL
 2/03/84 9:10:30 0045130 NORMAL
 2/02/84 9:20:30 0045130 NORMAL
 2/01/84 12:20:52 0049006 MARKED ROUGH COAT
 1/31/84 14:30:46 0035743 MARKED ARJITABLE, SLIGHT YELLOW PERIANAL STAIN, MODERATE DIARRHEA
 1/31/84 12:00:30 0035743 SLIGHT DEPRESSED GRASPING REFLEX
 1/31/84 9:40:02 0045130 * NO OBSERVATIONS RECORDED.
 1/30/84 9:23:40 0035743 109.0
 1/27/84 11:05:14 0045130 193.0 * NO OBSERVATIONS RECORDED.

ANIMAL ID: 04000505 SPECIES: D SEX: FEMALE GROUP: 404 MG/KG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 165.0 GRAMS QUARANTINE ID: 084000590
 REMOVAL DATE: 2/01/84 TIME: 9:00:32 REASON: DEAD

OBSERVATIONS

DATE	TIME	WEIGHT	OPERATOR	CLINICAL OBSERVATIONS
2/01/84	9:00:32	0035743		DEATH
1/31/84	14:42:26	0035743		MARKED HUNCHED POSTURE, MARKED DEPRESSED RIGHTING REFLEX, MARKED INCREASED SALIVATING
1/31/84	12:13:12	0069906		SLIGHT IRRITABLE, SLIGHT CLEAR MOUTH MATERIAL
1/31/84	9:42:06	0045130	174.0	* NO OBSERVATIONS RECORDED.
1/30/84	9:26:06	0035743	142.0	* NO OBSERVATIONS RECORDED.
1/27/84	11:06:02	0045130	180.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 04000591 SPECIES: D SEX: FEMALE GROUP: 404 MG/KG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 159.0 GRAMS QUARANTINE ID: 084000591
 THIS ANIMAL WAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT	OPERATOR	CLINICAL OBSERVATIONS
2/10/84	8:53:54	0045130	223.0	NORMAL
2/13/84	8:26:04	0045130		NORMAL
2/12/84	14:17:36	0000337		NORMAL
2/11/84	9:59:54	0049225		NORMAL
2/10/84	9:02:12	0045130	209.0	NORMAL
2/09/84	9:00:06	0042232		NORMAL
2/09/84	8:58:56	0035743		NORMAL
2/07/84	8:59:50	0045130	149.0	NORMAL
2/06/84	9:15:00	0042232		NORMAL
2/05/84	13:29:36	0053257		NORMAL
2/05/84	10:45:12	0053257		NORMAL
2/04/84	11:06:20	0045130		SLIGHT INCREASED RESPIRATION RATE, SLIGHT HYPERACTIVE
2/03/84	9:27:44	0045130	169.0	NORMAL
2/02/84	9:35:12	0045130		NORMAL
2/01/84	12:58:32	0069906		NORMAL
1/31/84	14:46:10	0035743		NORMAL
1/31/84	12:17:54	0035743		SLIGHT EXOPHTHALMUS, SLIGHT HYPERACTIVE, SLIGHT DEPRESSED GRASPING REFLEX
1/31/84	9:42:46	0045130	159.0	* NO OBSERVATIONS RECORDED.
1/30/84	9:26:22	0035743	164.0	* NO OBSERVATIONS RECORDED.
1/27/84	11:10:10	0045130	173.0	* NO OBSERVATIONS RECORDED.

1. NAME: JIMMIE W. WALKER
 2. DATE: 12/12/73
 3. TIME: 2:00 PM
 4. LOCATION: 1000 N. 1000 E.
 5. SPECIES: 1000 N. 1000 E.
 6. INITIAL: 1000 N. 1000 E.
 7. TIME: 1000 N. 1000 E.
 8. LOCATION: 1000 N. 1000 E.
 9. SPECIES: 1000 N. 1000 E.
 10. INITIAL: 1000 N. 1000 E.
 11. TIME: 1000 N. 1000 E.
 12. LOCATION: 1000 N. 1000 E.
 13. SPECIES: 1000 N. 1000 E.
 14. INITIAL: 1000 N. 1000 E.
 15. TIME: 1000 N. 1000 E.
 16. LOCATION: 1000 N. 1000 E.
 17. SPECIES: 1000 N. 1000 E.
 18. INITIAL: 1000 N. 1000 E.
 19. TIME: 1000 N. 1000 E.
 20. LOCATION: 1000 N. 1000 E.
 21. SPECIES: 1000 N. 1000 E.
 22. INITIAL: 1000 N. 1000 E.
 23. TIME: 1000 N. 1000 E.
 24. LOCATION: 1000 N. 1000 E.
 25. SPECIES: 1000 N. 1000 E.
 26. INITIAL: 1000 N. 1000 E.
 27. TIME: 1000 N. 1000 E.
 28. LOCATION: 1000 N. 1000 E.
 29. SPECIES: 1000 N. 1000 E.
 30. INITIAL: 1000 N. 1000 E.
 31. TIME: 1000 N. 1000 E.
 32. LOCATION: 1000 N. 1000 E.
 33. SPECIES: 1000 N. 1000 E.
 34. INITIAL: 1000 N. 1000 E.
 35. TIME: 1000 N. 1000 E.
 36. LOCATION: 1000 N. 1000 E.
 37. SPECIES: 1000 N. 1000 E.
 38. INITIAL: 1000 N. 1000 E.
 39. TIME: 1000 N. 1000 E.
 40. LOCATION: 1000 N. 1000 E.
 41. SPECIES: 1000 N. 1000 E.
 42. INITIAL: 1000 N. 1000 E.
 43. TIME: 1000 N. 1000 E.
 44. LOCATION: 1000 N. 1000 E.
 45. SPECIES: 1000 N. 1000 E.
 46. INITIAL: 1000 N. 1000 E.
 47. TIME: 1000 N. 1000 E.
 48. LOCATION: 1000 N. 1000 E.
 49. SPECIES: 1000 N. 1000 E.
 50. INITIAL: 1000 N. 1000 E.
 51. TIME: 1000 N. 1000 E.
 52. LOCATION: 1000 N. 1000 E.
 53. SPECIES: 1000 N. 1000 E.
 54. INITIAL: 1000 N. 1000 E.
 55. TIME: 1000 N. 1000 E.
 56. LOCATION: 1000 N. 1000 E.
 57. SPECIES: 1000 N. 1000 E.
 58. INITIAL: 1000 N. 1000 E.
 59. TIME: 1000 N. 1000 E.
 60. LOCATION: 1000 N. 1000 E.
 61. SPECIES: 1000 N. 1000 E.
 62. INITIAL: 1000 N. 1000 E.
 63. TIME: 1000 N. 1000 E.
 64. LOCATION: 1000 N. 1000 E.
 65. SPECIES: 1000 N. 1000 E.
 66. INITIAL: 1000 N. 1000 E.
 67. TIME: 1000 N. 1000 E.
 68. LOCATION: 1000 N. 1000 E.
 69. SPECIES: 1000 N. 1000 E.
 70. INITIAL: 1000 N. 1000 E.
 71. TIME: 1000 N. 1000 E.
 72. LOCATION: 1000 N. 1000 E.
 73. SPECIES: 1000 N. 1000 E.
 74. INITIAL: 1000 N. 1000 E.
 75. TIME: 1000 N. 1000 E.
 76. LOCATION: 1000 N. 1000 E.
 77. SPECIES: 1000 N. 1000 E.
 78. INITIAL: 1000 N. 1000 E.
 79. TIME: 1000 N. 1000 E.
 80. LOCATION: 1000 N. 1000 E.
 81. SPECIES: 1000 N. 1000 E.
 82. INITIAL: 1000 N. 1000 E.
 83. TIME: 1000 N. 1000 E.
 84. LOCATION: 1000 N. 1000 E.
 85. SPECIES: 1000 N. 1000 E.
 86. INITIAL: 1000 N. 1000 E.
 87. TIME: 1000 N. 1000 E.
 88. LOCATION: 1000 N. 1000 E.
 89. SPECIES: 1000 N. 1000 E.
 90. INITIAL: 1000 N. 1000 E.
 91. TIME: 1000 N. 1000 E.
 92. LOCATION: 1000 N. 1000 E.
 93. SPECIES: 1000 N. 1000 E.
 94. INITIAL: 1000 N. 1000 E.
 95. TIME: 1000 N. 1000 E.
 96. LOCATION: 1000 N. 1000 E.
 97. SPECIES: 1000 N. 1000 E.
 98. INITIAL: 1000 N. 1000 E.
 99. TIME: 1000 N. 1000 E.
 100. LOCATION: 1000 N. 1000 E.

INSEPARABLE

DATE	TIME	DESCRIPTION	REMARKS
2/02/84	05:04:44	00064006	MADE BROWN PERINEAL MATERIAL, MODERATE TARRY ECES, MODERATE INITIAL, MODERATE JURING OBSERVATION, DEATH
2/02/84	05:44:20	00065130	MODERATE TROUGH COAT, MODERATE RED EYE MATERIAL, MODERATE NEW NOSE STAIN, MODERATE NEW MOUTH STAIN, MARKED DECREASED NIGHTING REFLEX, MARKED DECREASED GRASPING REFLEX, MODERATE YELLOW PERINEAL STAIN
2/01/84	05:10:53	00352745	MODERATE TROUGH COAT, MARKED INCREASED, MARKED INCREASED STARTLE REFLEX, MARKED RED EYE MATERIAL, MARKED INCREASED SALIVATION, MODERATE DIARRHEA
1/31/84	13:44:26	00644006	MODERATE INCREASED MOUTH, MODERATE INAPPROPRIATE, MODERATE URETHRAL DISCHARGE, SLIGHT INCREASED SALIVATION, SLIGHT GROSS PERINEAL MATERIAL
1/31/84	10:44:54	00352703	SLIGHT INAPPROPRIATE
1/31/84	04:44:08	00065130	* NO OBSERVATIONS RECORDED.
1/30/84	05:55:52	00352743	* NO OBSERVATIONS RECORDED.
1/27/84	10:07:24	00065130	* NO OBSERVATIONS RECORDED.

A.L.I.L. ID: 3400069 SPECIES: D SEX: MALE GROUP: 400 MZ/KG
 BIRTH DATE: 12/12/73 INITIAL WEIGHT: 210.0 GRAMS
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.
 HUANA#LINE ID: 004000454

CONFIDENTIAL

[illegible]

ANIMAL ID: 40000005 SPECIES: D SEX: MALE GROUP: 600 M/MS
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 215.0 GRAMS QUANTALINE ID: 084000463
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT	OPERATOR	WEIGHT	CLINICAL OBSERVATIONS
2/10/84	2:18:13	0043130	345.0		NORMAL
2/13/84	1:24:30	0043130			NORMAL
2/17/84	14:03:00	000337			NORMAL
2/17/84	7:00:50	004225			NORMAL
2/17/84	0:25:14	0043130	320.0		NORMAL
2/19/84	2:35:24	0042252			NORMAL
2/19/84	0:11:32	003743			NORMAL
2/17/84	3:12:02	0043130	305.0		NORMAL
2/19/84	0:22:34	0042252			SLIGHT IRRITABLE
2/19/84	13:23:30	005257			NORMAL
2/19/84	10:30:33	005257			NORMAL
2/19/84	10:41:14	0043130			SLIGHT RED NOSE STAIN, SLIGHT DEPRESSED GRASPING REFLEX
2/19/84	0:10:22	0043130	265.0		SLIGHT RED NOSE STAIN
2/19/84	0:50:00	0043130			NORMAL
2/19/84	7:14:20	003743			NORMAL
1/31/84	13:52:10	003743			MARKED ROUGH COAT, MODERATE INCREASED STANILE REFLEX, MODERATE IRRITABLE, SLIGHT RED MOUTH STAIN, SLIGHT CLEAR NASAL DISCHARGE, SLIGHT CYANOSIS
1/31/84	10:34:52	004906			SLIGHT RED MOUTH STAIN, SLIGHT DEPRESSED GRASPING REFLEX
1/31/84	9:24:02	0043130	237.0		* NO OBSERVATIONS RECORDED.
1/30/84	0:41:14	003743	272.0		* NO OBSERVATIONS RECORDED.
1/27/84	10:12:14	0043130	243.0		* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000009 SPECIES: D SEX: MALE GROUP: 600 M/MS
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 205.0 GRAMS QUANTALINE ID: 084000464
 REMOVAL DATE: 2/01/84 TIME: 11:34:12 REASON: DEAD

OBSERVATIONS

DATE	TIME	WEIGHT	OPERATOR	WEIGHT	CLINICAL OBSERVATIONS
2/01/84	1:39:12	006906			DEATH
2/01/84	9:20:50	003743			MOUTHED
1/31/84	13:54:12	003743			SLIGHT STUNTING, SLIGHT ROUGH COAT, MODERATE IRRITABLE, MODERATE INCREASED SALIVATION
1/31/84	10:34:50	003743			SLIGHT JUMPING, SLIGHT HYPERACTIVE, MODERATE DEPRESSED GRASPING REFLEX
1/31/84	9:44:24	0043130	223.0		* NO OBSERVATIONS RECORDED.
1/30/84	0:42:34	003743	264.0		* NO OBSERVATIONS RECORDED.
1/27/84	10:12:00	0043130	235.0		* NO OBSERVATIONS RECORDED.

11/10/2011

SERIAL ID: 040005-6
 REPAIR DATE: 12/12/83
 REMOVAL DATE: 1/31/84
 SPECIES: 0 SEX: 4ALE GROUP: 600 W6/KC
 INITIAL WEIGHT: 192.0 GRAMS
 TIME: 14:04:28 REASON: DEAD
 QUANTING IN: 0R40000490

DECLASSIFICATION

DATE	TIME	OPERATION	FLIGHT	TECHNICAL OBSERVATIONS
1/31/74	10:42:24	0035743		DEATH
1/31/74	15:59:50	0035743		MARKED INCREASED STAIRS SLIGHT CHANGE MOUTH'S DEPRESSED RIGHTING REF
1/31/74	11:00:04	0035743		SLIGHT IRRITABLE, SLIGHT
1/31/74	17:50:00	0005150	213.0	* NO OBSERVATIONS RECD
1/30/74	5:44:09	0035743	245.0	* NO OBSERVATIONS RECD
1/27/74	10:20:12	0005150	214.0	* NO OBSERVATIONS RECD

ANIMAL ID: 0000099 SPECIES: D SEX: MALE GROUP: 600 Mo/AG
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 100.0 GRAMS QUARANTINE ID: 0000099
 DEATH DATE: 1/31/84 TIME: 16:20:50 REASON: DEAD

OBSERVATIONS

DATE	TIME	WEIGHT	DEATH	AGRAST	CLINICAL OBSERVATIONS
1/31/84	16:20:50	003743	DEATH		MARKED INCREASED STAPILL REFLEX, MARKED SOMNOLENCE, MARKED MOUGH COAT, MODERATE INCREASED SALIVATION, MODERATE CLEAR NASAL DISCHARGE, MODERATE INCREASED RESPIRATION RATE, SLIGHT TWITCHING
1/31/84	16:20:50	003743			MODERATE HYPERALGIA
1/31/84	16:20:50	003743			* NO OBSERVATIONS RECORDED.
1/31/84	16:20:50	003743			* NO OBSERVATIONS RECORDED.
1/31/84	16:20:50	003743			* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000511 SPECIES: D SEX: MALE GROUP: 600 Mo/AG
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 119.0 GRAMS QUARANTINE ID: 00000511
 THIS ANIMAL WAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT	DEATH	AGRAST	CLINICAL OBSERVATIONS
2/10/84	8:23:56	0045150			NORMAL
2/13/84	8:03:54	0045150			SLIGHT INACTIVE
2/12/84	14:13:02	0000357			NORMAL
2/11/84	9:23:00	0049225			NORMAL
2/10/84	8:39:40	0045150			NORMAL
2/09/84	8:45:06	0042252			NORMAL
2/09/84	8:23:34	003743			NORMAL
2/07/84	8:30:29	0045150			NORMAL
2/06/84	8:42:32	0042252			SLIGHT INACTIVE
2/05/84	13:25:26	005327			SLIGHT INACTIVE
2/05/84	13:39:26	005327			SLIGHT INACTIVE, SLIGHT DECREASED RIGHTING REFLEX, SLIGHT DECREASED GRASPING REFLEX
2/04/84	10:51:44	0045150			SLIGHT INACTIVE, SLIGHT DECREASED RIGHTING REFLEX, SLIGHT DECREASED GRASPING REFLEX
2/03/84	8:45:50	0045150			SLIGHT DECREASED RIGHTING REFLEX, SLIGHT INACTIVE
2/02/84	9:04:20	0045150			SLIGHT INCREASED STAPILL REFLEX
2/01/84	11:23:06	0064906			MODERATE MOUGH COAT, MARKED RED NASAL DISCHARGE, MARKED RED MOUTH STAIN, MODERATE INCREASED SALIVATION, MODERATE DECREASED GRASPING REFLEX, MODERATE DECREASED RIGHTING REFLEX, MODERATE RED EYE MATERIAL
1/31/84	14:13:50	003743			MARKED MOUGH COAT, MODERATE SOMNOLENCE, MARKED IRRITABLE, SLIGHT RED NASAL DISCHARGE, MODERATE DECREASED RIGHTING REFLEX, MODERATE DECREASED GRASPING REFLEX, MODERATE INCREASED RESPIRATION RATE
1/31/84	11:18:14	003743			SLIGHT DECREASED GRASPING REFLEX
1/31/84	9:52:52	0045150			* NO OBSERVATIONS RECORDED.
1/30/84	8:57:30	003743			* NO OBSERVATIONS RECORDED.
1/27/84	10:51:54	0045150			* NO OBSERVATIONS RECORDED.

ACTUAL ID: 04000515 SPECIES: D SEX: MALE GROUP: 600 M6/KG
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 173.0 GRAMS QUANTITATIVE ID: 04000515
 DEATH DATE: 2/02/84 TIME: 7:40:42 REASON: DEAD

OBSERVATIONS

DATE	TIME	WEIGHT	OPERATOR	WEIGHT	CLINICAL OBSERVATIONS
2/02/84	7:46:42	0045130			DEATH
2/02/84	11:51:00	0069406			MARNO INCREASED STABLE REFLEX, MARNO Twitching, SLIGHT RUDDY COAT, SLIGHT RED EYE MATERIAL, MARKED CLEAR NASAL DISCHARGE, MARKED INCREASED SALIVATION, SLIGHT SHUTTING, MARKED YELLOW PERIANAL STAIN, MARKED DEPRESSED, EIGHTING REFLEX
1/31/84	14:16:40	0035743			MARNO SUNNULNCE, MARNO MOUTH COAT, SLIGHT CLEAR NASAL DISCHARGE, MOUTH RATE INCREASED SALIVATION, SLIGHT SHUTTING, MODERATE IRRITABLE
1/31/84	11:21:22	0035743			MODERATE HYPERACTIONS, SLIGHT IRRITABLE
1/31/84	9:53:32	0045130		206.0	* NO OBSERVATIONS RECORDED.
1/30/84	8:59:42	0035743		254.0	* NO OBSERVATIONS RECORDED.
1/27/84	10:50:14	0045130		206.0	* NO OBSERVATIONS RECORDED.

ACTUAL ID: 04000531 SPECIES: D SEX: FEMALE GROUP: 600 M6/KG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 149.0 GRAMS QUANTITATIVE ID: 04000531
 DEATH DATE: 1/31/84 TIME: 14:10:26 REASON: DEAD

OBSERVATIONS

DATE	TIME	WEIGHT	OPERATOR	WEIGHT	CLINICAL OBSERVATIONS
1/31/84	14:10:26	0035743			DEATH
1/31/84	11:32:02	0035743			MODERATE HYPERACTIONS, SLIGHT RED NASAL DISCHARGE, SLIGHT DEPRESSED GRASPING REFLEX
1/31/84	9:56:00	0045130		155.0	* NO OBSERVATIONS RECORDED.
1/30/84	9:07:04	0035743		172.0	* NO OBSERVATIONS RECORDED.
1/27/84	10:43:44	0045130		164.0	* NO OBSERVATIONS RECORDED.

ACTUAL ID: 04000530 SPECIES: D SEX: FEMALE GROUP: 600 M6/KG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 174.0 GRAMS QUANTITATIVE ID: 04000530
 DEATH DATE: 2/02/84 TIME: 13:42:50 REASON: PHYSICAL ABNORMALITY

OBSERVATIONS

DATE	TIME	WEIGHT	OPERATOR	WEIGHT	CLINICAL OBSERVATIONS
2/02/84	13:42:50	0069406			MISSED, REMOVED FROM STUDY
1/31/84	9:57:24	0045130		166.0	* NO OBSERVATIONS RECORDED.
1/30/84	9:11:54	0035743		210.0	* NO OBSERVATIONS RECORDED.
1/27/84	10:49:34	0045130		193.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000551 SPECIES: D SEX: FEMALE GROUP: 600 M6/KG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 152.0 GRAMS QUARANTINE ID: 00000551
 THIS ANIMAL HAS NOT BEEN RECOVERED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	WEIGHT (GRAMS)	FLIGHT	CLINICAL OBSERVATIONS
2/10/84	0:50:42	0045130	200.0	NORMAL
2/13/84	0:19:06	0045130		NORMAL
2/17/84	1:15:00	0000337		NORMAL
2/11/84	2:31:26	0044225		NORMAL
2/10/84	3:50:32	0045130	169.0	NORMAL
2/09/84	3:54:04	0042252		NORMAL
2/08/84	0:32:26	0033743		NORMAL
2/07/84	0:42:00	0045130	193.0	NORMAL
2/06/84	0:42:04	0042252		NORMAL
2/05/84	1:22:04	0053257		NORMAL
2/05/84	1:22:06	0053257		NORMAL
2/04/84	1:00:10	0045130	162.0	SLIGHT HYPERACTIVE, SLIGHT INCREASED STARTLE REFLEX
2/03/84	2:07:00	0045130		SLIGHT HYPERACTIVE
2/02/84	2:23:40	0045130		NORMAL
2/01/84	1:21:32	0064806		SLIGHT IRRITABLE, SLIGHT RED NOSE STATUS, MODERATE YELLOW PERIARIAL STAIN
1/31/84	1:24:46	0064806		SLIGHT ROUGH COAT, MODERATE TREMORS, SLIGHT URINE ADDUCTION, MODERATE INCREASED RESPIRATION RATE
1/31/84	1:41:02	0033743		SLIGHT HYPERACTIVE, SLIGHT RED NASAL DISCHARGE, SLIGHT DECREASED GRASPING REFLEX
1/31/84	2:57:24	0045130	147.0	* NO OBSERVATIONS RECORDED.
1/30/84	2:12:34	0033743	169.0	* NO OBSERVATIONS RECORDED.
1/27/84	10:50:16	0045130	159.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000554 SPECIES: D SEX: FEMALE GROUP: 600 M6/KG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 161.0 GRAMS QUARANTINE ID: 00000554
 REMOVAL DATE: 1/31/84 TIME: 15:02:56 REASON: DEAD

OBSERVATIONS

DATE	TIME	WEIGHT (GRAMS)	FLIGHT	CLINICAL OBSERVATIONS
1/31/84	15:02:56	0033743		DEATH
1/31/84	14:26:48	0064806		MURKIN, MODERATE CORNEAL OPACITY, SLIGHT LACHRYMOARRHEA, MARKED INCREASED SALIVATION, MARKED TITICING
1/31/84	11:43:54	0033743		SLIGHT JUMPING, SLIGHT RED NASAL DISCHARGE, SLIGHT DECREASED GRASPING REFLEX
1/31/84	9:59:12	0045130	166.0	* NO OBSERVATIONS RECORDED.
1/30/84	2:13:56	0033743	211.0	* NO OBSERVATIONS RECORDED.
1/27/84	10:52:04	0045130	196.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 04000554 SPECIES: D SEX: FEMALE GROUP: 600 MG/AG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 157.0 GRAMS QUANTITATIVE ID: 04000550
 REMOVAL DATE: 1/31/84 TIME: 10:12:00 REASON: DEAD

OBSERVATIONS

DATE	TIME	OPERATOR	WEIGHT (GRAMS)	CLINICAL OBSERVATIONS
1/31/84	14:12:00	0035743		DEATH
1/31/84	11:45:28	0035743	155.0	SLIGHT HYPERALTRIC, SLIGHT JUMPING, SLIGHT DEPRESSED GRASPING REFLEX
1/31/84	9:59:32	0035130	175.0	* NO OBSERVATIONS RECORDED.
1/30/84	9:15:00	0035743	175.0	* NO OBSERVATIONS RECORDED.
1/27/84	10:53:06	0035130	168.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 04000564 SPECIES: D SEX: FEMALE GROUP: 600 MG/AG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 167.0 GRAMS QUANTITATIVE ID: 04000564
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	OPERATOR	WEIGHT (GRAMS)	CLINICAL OBSERVATIONS
2/19/84	8:45:06	0045130	244.0	NORMAL
2/13/84	8:21:20	0045130		NORMAL
2/12/84	14:16:22	0003357		NORMAL
2/11/84	9:34:24	0049225		NORMAL
2/10/84	8:56:30	0045130	251.0	NORMAL
2/09/84	8:56:22	0042232		NORMAL
2/09/84	8:54:46	0035743		NORMAL
2/07/84	8:45:54	0045130	216.0	NORMAL
2/06/84	9:06:56	0042232		NORMAL
2/05/84	13:23:16	0053257		NORMAL
2/05/84	10:43:56	0053257		NORMAL
2/02/84	11:02:24	0045130		NORMAL
2/03/84	4:13:54	0045130	183.0	SLIGHT INCREASED RESPIRATION RATE
2/02/84	4:26:00	0045130		SLIGHT RED MOUTH STAIN
2/01/84	12:14:12	0064906		MODERATE MURCHED POSTURE, MODERATE INCREASED STIMULI REFLEX, MODERATE TREMORS, MODERATE RED MOUTH STAIN, MODERATE YELLOW PERIANAL STAIN, SLIGHT RED EYE MATERIAL
1/31/84	14:32:56	0035743		SLIGHT MOUTH COAT, MARKED IRRITABLE, SLIGHT YELLOW PERIANAL STAIN, SLIGHT TWITCHING
1/31/84	11:53:48	0035743		SLIGHT DEPRESSED GRASPING REFLEX, SLIGHT HYPERALTRIC
1/31/84	10:01:00	0045130	174.0	* NO OBSERVATIONS RECORDED.
1/30/84	9:18:02	0035743	193.0	* NO OBSERVATIONS RECORDED.
1/27/84	10:57:42	0045130	180.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000569 SPECIES: D SEX: FEMALE GROUP: 600 MU/KG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 106.0 GRAMS QUANTITATIVE ID: 084000569
 REMOVAL DATE: 2/02/84 TIME: 13:41:22 REASON: PHYSICAL ABNORMALITY

OBSERVATIONS

DATE	TIME	OPERATOR	WEIGHT (GRAMS)	CLINICAL OBSERVATIONS
2/02/84	13:41:22	0069806		MISUSED, REMOVED FROM STUDY
1/31/84	10:02:24	0045150	140.0	* NO OBSERVATIONS RECORDED.
1/30/84	9:19:42	0035743	144.0	* NO OBSERVATIONS RECORDED.
1/27/84	10:59:22	0045150	104.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000574 SPECIES: D SEX: FEMALE GROUP: 600 MU/KG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 171.0 GRAMS QUANTITATIVE ID: 084000574
 REMOVAL DATE: 1/31/84 TIME: 14:37:32 REASON: DEAD

OBSERVATIONS

DATE	TIME	OPERATOR	WEIGHT (GRAMS)	CLINICAL OBSERVATIONS
1/31/84	14:37:32	0035743		DEATH
1/31/84	12:05:30	0069806		SLIGHT ULCER MOUTH MATERIAL, SLIGHT DEPRESSED GRASPING REFLEX
1/31/84	10:03:12	0045150	174.0	* NO OBSERVATIONS RECORDED.
1/30/84	9:21:58	0035743	197.0	* NO OBSERVATIONS RECORDED.
1/27/84	11:03:28	0045150	109.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 0000562 SPECIES: D SEX: FEMALE GROUP: K00 M2/KC
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 175.0 GRAMS QUARANTINE ID: 004000562
 THIS ANIMAL HAS NOT BEEN REMOVED FROM THE EXPERIMENT.

OBSERVATIONS

DATE	TIME	OPERATOR	WEIGHT	CLINICAL OBSERVATIONS
2/14/84	8:50:50	0045150	225.0	NORMAL
2/15/84	8:23:02	0045150		NORMAL
2/17/84	14:16:56	0000327		NORMAL
2/11/84	9:57:18	0049225		NORMAL
2/10/84	8:58:54	0045150	214.0	NORMAL
2/09/84	8:58:00	0042252		NORMAL
2/06/84	8:56:32	0035743		NORMAL
2/07/84	8:48:50	0045150	209.0	NORMAL
2/06/84	9:10:14	0042232		SLIGHT DECREASED GRASPING REFLEX
2/05/84	13:24:56	0053257		SLIGHT DECREASED GRASPING REFLEX
2/05/84	10:44:20	0054257		SLIGHT DECREASED GRASPING REFLEX
2/04/84	11:03:40	0045150	180.0	SLIGHT HYPERACTIVE, SLIGHT INCREASED STARTLE REFLEX
2/03/84	9:20:22	0045150		NORMAL
2/02/84	9:28:52	0045150		MODERATE TREMORS, SLIGHT YELLOW PERIORBITAL STAIN, SLIGHT RED MOUTH MATERIAL,
2/01/84	12:25:50	0069406		MODERATE MOUTH COAT, MODERATE ITCHING, MODERATE INACTIVE, SLIGHT RED
1/31/84	14:40:32	0035743		NASAL DISCHARGE, SLIGHT CHUCKING, SLIGHT RED EYE MATERIAL, SLIGHT
1/31/84	12:09:44	0035743		INCREASED RESPIRATION RATE
1/31/84	10:04:24	0045150	169.0	SLIGHT JUMPING, SLIGHT DECREASED GRASPING REFLEX
1/30/84	9:24:14	0035743	183.0	* NO OBSERVATIONS RECORDED.
1/27/84	11:06:10	0045150	186.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 01000433 SPECIES: D SEX: MALE GROUP: 775 M0/KG
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 219.0 GRAMS QUANTALINE ID: 084000453
 REMOVAL DATE: 1/31/84 TIME: 17:52:02 REASON: DEATH

OBSERVATIONS

DATE TIME FLIGHT DEFECTION (GRAMS) CLINICAL OBSERVATIONS

1/31/84 17:52:02 0035743 DEATH
 1/31/84 15:04:24 0035743 MARKED IRRITABLE, MODERATE CORYZODACRYOPHORIA, MARKED CORNEAL OPACITY, MODERATE CLEAR NASAL DISCHARGE, SLIGHT INCREASED SALIVATION, MODERATE TREMORS, MODERATE INCREASED STARTLE REFLEX, MODERATE DEPRESSED RIGHTING REFLEX, MODERATE ROUGH COAT

1/31/84 10:47:14 0035743 MORAL
 1/31/84 10:05:32 0045130 238.0 * NO OBSERVATIONS RECORDED.
 1/30/84 07:54:20 0035743 214.0 * NO OBSERVATIONS RECORDED.
 1/27/84 10:06:20 0045130 246.0 * NO OBSERVATIONS RECORDED.

ANIMAL ID: 08000462 SPECIES: D SEX: MALE GROUP: 775 M0/KG
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 205.0 GRAMS QUANTALINE ID: 084000462
 REMOVAL DATE: 2/01/84 TIME: 18:01:30 REASON: DEATH

OBSERVATIONS

DATE TIME FLIGHT DEFECTION (GRAMS) CLINICAL OBSERVATIONS

2/01/84 05:01:50 0035743 DEATH
 1/31/84 15:07:20 0035743 MODERATE TREMORS, MODERATE TATTLING, MODERATE RED EYE MATERIAL, MARKED INCREASED SALIVATION, MODERATE ROUGH COAT

1/31/84 10:52:54 0035743 SLIGHT DEPRESSED GRASPING REFLEX
 1/31/84 10:06:34 0045130 268.0 * NO OBSERVATIONS RECORDED.
 1/30/84 05:54:20 0035743 259.0 * NO OBSERVATIONS RECORDED.
 1/27/84 10:09:50 0045130 230.0 * NO OBSERVATIONS RECORDED.

ANIMAL ID: 08000478 SPECIES: D SEX: MALE GROUP: 775 M0/KG
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 190.0 GRAMS QUANTALINE ID: 084000478
 REMOVAL DATE: 1/31/84 TIME: 17:56:44 REASON: DEATH

OBSERVATIONS

DATE TIME FLIGHT DEFECTION (GRAMS) CLINICAL OBSERVATIONS

1/31/84 17:56:44 0035743 DEATH
 1/31/84 15:13:30 0035743 MODERATE ROUGH COAT, MARKED INCREASED SALIVATION, MODERATE CLEAR NASAL DISCHARGE, MODERATE VIARREA, MARKED DEPRESSED RIGHTING REFLEX, MARKED DEPRESSED GRASPING REFLEX, MODERATE INITCHING REFLEX

1/31/84 11:00:20 0035743 SLIGHT HYPERACTIONS RECORDED.
 1/31/84 10:07:52 0045130 213.0 * NO OBSERVATIONS RECORDED.
 1/30/84 07:54:20 0035743 241.0 * NO OBSERVATIONS RECORDED.
 1/27/84 10:17:04 0045130 214.0 * NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000503 SPECIES: D SEX: MALE GROUP: 7/5 MU/KG
 BIRTH DATE: 12/17/83 INITIAL WEIGHT: 200.0 GRAMS QUARANTINE ID: 004000400
 REMOVAL DATE: 1/31/84 TIME: 17:54:40 REASON: DEATH

OBSERVATIONS

DATE TIME OPERATOR (GRAMS) WEIGHT CLINICAL OBSERVATIONS

1/31/84 15:53:40 0035743 DEATH
 1/31/84 15:53:10 0035743 MARKED SOMNOLENCE, MARKED TREMORS, MODERATE INACTIVE, SLIGHT
 DEPRESSED RIGHTING REFLEX, MARKED INCREASED RESPIRATION RATE, MODERATE
 NASAL DISCHARGE, MARKED INCREASED SALIVATION, MODERATE VOMITING
 MODERATE HYPERALGIA
 1/31/84 11:31:22 0035743 * NO OBSERVATIONS RECORDED.
 1/31/84 10:08:12 0045150 226.0 * NO OBSERVATIONS RECORDED.
 1/30/84 01:48:20 0035743 202.0 * NO OBSERVATIONS RECORDED.
 1/27/84 10:17:30 0045150 235.0 * NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000487 SPECIES: D SEX: MALE GROUP: 7/5 MU/KG
 BIRTH DATE: 12/12/83 INITIAL WEIGHT: 191.0 GRAMS QUARANTINE ID: 004000487
 REMOVAL DATE: 2/01/84 TIME: 0:05:04 REASON: DEATH

OBSERVATIONS

DATE TIME OPERATOR (GRAMS) WEIGHT CLINICAL OBSERVATIONS

2/01/84 0:05:04 0035743 DEATH
 1/31/84 15:19:10 0035743 MARKED INACTIVE, MODERATE TREMORS, MARKED INCREASED RESPIRATION RATE, MODERATE
 DEPRESSED RIGHTING REFLEX, MARKED RED EYE, BALENTIAL, MODERATE RED
 NASAL DISCHARGE, MODERATE INCREASED SALIVATION, SLIGHT VOMITING, MODERATE
 ROUGH COAT
 1/31/84 11:05:30 0035743 NORMAL
 1/31/84 10:10:20 0045150 206.0 * NO OBSERVATIONS RECORDED.
 1/30/84 01:49:10 0035743 240.0 * NO OBSERVATIONS RECORDED.
 1/27/84 10:20:42 0045150 217.0 * NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000503 SPECIES: D SEX: MALE GROUP: 7/5 MU/KG
 BIRTH DATE: 12/17/83 INITIAL WEIGHT: 179.0 GRAMS QUARANTINE ID: 004000503
 REMOVAL DATE: 2/01/84 TIME: 0:05:40 REASON: DEATH

OBSERVATIONS

DATE TIME OPERATOR (GRAMS) WEIGHT CLINICAL OBSERVATIONS

2/01/84 0:05:40 0035743 DEATH
 1/31/84 15:26:50 0035743 SLIGHT ROUGH COAT, SLIGHT RED NASAL DISCHARGE, SLIGHT INCREASED SALIVATION
 1/31/84 13:13:40 0035743 SLIGHT HYPERALGIA, SLIGHT RED NASAL DISCHARGE
 1/31/84 10:11:04 0045150 149.0 * NO OBSERVATIONS RECORDED.
 1/30/84 01:54:30 0035743 233.0 * NO OBSERVATIONS RECORDED.
 1/27/84 10:27:32 0045150 207.0 * NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000510 SPECIES: D SEX: MALE GROUP: 7/5 M6/KG
 BIRTH DATE: 12/12/85 INITIAL WEIGHT: 175.0 GRAMS QUANTITATIVE ID: 084000510
 REMOVAL DATE: 1/31/84 TIME: 14:07:30 REASON: DEAD

OBSERVATIONS

DATE TIME FLIGHT OPERATOR (GRAMS) ALLUCAL OBSERVATIONS

1/31/84 10:07:30 0035743 DEATH
 1/31/84 10:56:00 0035743 MARKED INCREASED STABLE REFLEX, MARKED INITIATION, MARKED INHIBITABLE, MARKED TENDERS, MARKED INCREASED SALIVATION, MARKED CLEAR NASAL DISCHARGE
 1/31/84 11:17:12 0035743 SLIGHT HYPERACTIVITY, SLIGHT DECREASED GRASPING REFLEX
 1/31/84 10:11:50 0045130 195.0 * NO OBSERVATIONS RECORDED.
 1/30/84 07:57:06 0035743 234.0 * NO OBSERVATIONS RECORDED.
 1/27/84 10:51:10 0045130 205.0 * NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000520 SPECIES: D SEX: MALE GROUP: 7/5 M6/KG
 BIRTH DATE: 12/12/85 INITIAL WEIGHT: 170.0 GRAMS QUANTITATIVE ID: 084000520
 REMOVAL DATE: 1/31/84 TIME: 14:50:08 REASON: DEAD

OBSERVATIONS

DATE TIME FLIGHT OPERATOR (GRAMS) ALLUCAL OBSERVATIONS

1/31/84 10:58:04 0035743 DEATH
 1/31/84 11:20:10 0035743 SLIGHT HUNCHER POSTURE, SLIGHT INHIBITABLE
 1/31/84 10:12:14 0045130 197.0 * NO OBSERVATIONS RECORDED.
 1/30/84 07:01:20 0035743 241.0 * NO OBSERVATIONS RECORDED.
 1/27/84 10:56:52 0045130 199.0 * NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000521 SPECIES: D SEX: MALE GROUP: 7/5 M6/KG
 BIRTH DATE: 12/12/85 INITIAL WEIGHT: 212.0 GRAMS QUANTITATIVE ID: 084000521
 REMOVAL DATE: 2/01/84 TIME: 14:07:02 REASON: DEAD

OBSERVATIONS

DATE TIME FLIGHT OPERATOR (GRAMS) ALLUCAL OBSERVATIONS

2/01/84 05:07:02 0035743 DEATH
 1/31/84 10:58:34 0035743 MARKED HUNCH COAT, MARKED INITIATION, SLIGHT CLEAR NASAL DISCHARGE, MODERATE INCREASED SALIVATION, SLIGHT TENDERS
 1/31/84 11:24:50 0049004 MODERATE NEW MOUTH STAIN, MODERATE RED NASAL DISCHARGE
 1/31/84 10:13:14 0045130 238.0 * NO OBSERVATIONS RECORDED.
 1/30/84 07:02:04 0035743 207.0 * NO OBSERVATIONS RECORDED.
 1/27/84 10:57:24 0045130 244.0 * NO OBSERVATIONS RECORDED.

ACT ID: 00000524 SPECIES: 0 SEX: FEMALE GROUP: 7/5 M6/KG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 100.0 GRAMS QUARANTINE ID: 004000524
 RECVL DATE: 1/31/84 TIME: 14:59:42 REASON: DEAD

OBSERVATIONS

DATE TIME FLIGHT OPERATOR (GRAMS) CLINICAL OBSERVATIONS

1/31/84 14:59:42 0035743 02414
 1/31/84 11:27:12 0035743 00432L
 1/31/84 10:13:45 0043150 170.0 * NO OBSERVATIONS RECORDED.
 1/30/84 9:03:04 0035743 144.0 * NO OBSERVATIONS RECORDED.
 1/27/84 10:58:20 0043150 101.0 * NO OBSERVATIONS RECORDED.

ACT ID: 00000524 SPECIES: 0 SEX: FEMALE GROUP: 7/5 M6/KG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 179.0 GRAMS QUARANTINE ID: 004000520
 RECVL DATE: 1/31/84 TIME: 14:09:26 REASON: DEAD

OBSERVATIONS

DATE TIME FLIGHT OPERATOR (GRAMS) CLINICAL OBSERVATIONS

1/31/84 14:09:26 0035743 02414
 1/31/84 11:28:34 0035743 02414
 1/31/84 10:14:42 0043150 177.0 * NO OBSERVATIONS RECORDED.
 1/31/84 9:08:46 0035743 205.0 * NO OBSERVATIONS RECORDED.
 1/27/84 10:59:46 0043150 190.0 * NO OBSERVATIONS RECORDED.

ACT ID: 00000553 SPECIES: 0 SEX: FEMALE GROUP: 7/5 M6/KG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 101.0 GRAMS QUARANTINE ID: 004000553
 RECVL DATE: 1/31/84 TIME: 14:27:40 REASON: DEAD

OBSERVATIONS

DATE TIME FLIGHT OPERATOR (GRAMS) CLINICAL OBSERVATIONS

1/31/84 14:27:40 0035743 02414
 1/31/84 11:42:46 0035743 02414
 1/31/84 10:16:00 0043150 190.0 * NO OBSERVATIONS RECORDED.
 1/30/84 9:13:30 0035743 210.0 * NO OBSERVATIONS RECORDED.
 1/27/84 10:51:26 0043150 202.0 * NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000559 SPECIES: D SEX: FEMALE GROUP: 7/5 MG/KG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 155.0 GRAMS QUARANTINE ID: 084000559
 REMOVAL DATE: 1/31/84 TIME: 14:12:44 REASON: DEAD

OBSERVATIONS

DATE	TIME	OPERATOR	WEIGHT	CLINICAL OBSERVATIONS
1/31/84	14:12:44	0035743		DEATH
1/31/84	14:47:14	0069406		SLIGHT MUNCHED POSTURE, SLIGHT HYPERACTIVE, SLIGHT LEEK MOUTH MATERIAL, SLIGHT DEPRESSIONED WRAPPING REFLEX
1/31/84	10:14:26	0045130	105.0	* NO OBSERVATIONS RECORDED.
1/30/84	9:15:24	0035743	105.0	* NO OBSERVATIONS RECORDED.
1/27/84	10:53:39	0045130	115.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000562 SPECIES: D SEX: FEMALE GROUP: 7/5 MG/KG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 148.0 GRAMS QUARANTINE ID: 084000562
 REMOVAL DATE: 1/31/84 TIME: 14:09:34 REASON: DEAD

OBSERVATIONS

DATE	TIME	OPERATOR	WEIGHT	CLINICAL OBSERVATIONS
1/31/84	14:49:34	0035743		DEATH
1/31/84	14:42:44	0035743		MURMUR
1/31/84	11:50:40	0035743		SLIGHT IRRITABLE, SLIGHT HYPERACTIVE, SLIGHT MUNCHED POSTURE, SLIGHT RED NASAL DISCHARGE
1/31/84	10:17:14	0045130	102.0	* NO OBSERVATIONS RECORDED.
1/30/84	9:17:04	0035743	105.0	* NO OBSERVATIONS RECORDED.
1/27/84	10:56:24	0045130	103.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 00000565 SPECIES: D SEX: FEMALE GROUP: 7/5 MG/KG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 105.0 GRAMS QUARANTINE ID: 084000565
 REMOVAL DATE: 2/01/84 TIME: 8:02:28 REASON: DEAD

OBSERVATIONS

DATE	TIME	OPERATOR	WEIGHT	CLINICAL OBSERVATIONS
2/01/84	8:02:28	0035743		DEATH
1/31/84	14:53:54	0069406		MARKED MUNCHED POSTURE, MARKED INCREASED RESPIRATION RATE, MARKED IRRITABLE, MODERATE URINE AMOUNT
1/31/84	11:56:10	0035743		SLIGHT IRRITABLE, SLIGHT HYPERACTIVE, SLIGHT RED NASAL DISCHARGE
1/31/84	10:14:22	0045130	126.0	* NO OBSERVATIONS RECORDED.
1/30/84	9:14:26	0035743	103.0	* NO OBSERVATIONS RECORDED.
1/27/84	10:54:16	0045130	115.0	* NO OBSERVATIONS RECORDED.

ANIMAL ID: 004000575 SPECIES: D SEX: FEMALE GROUP: 7/5 NO/AG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 176.0 GRAMS QUARANTINE ID: 004000575
 REMOVAL DATE: 2/01/84 TIME: 7:50:30 REASON: DEAD

OBSERVATIONS

DATE	TIME	WEIGHT (GRAMS)	CLINICAL OBSERVATIONS
2/01/84	7:50:30	0035743	DEATH
1/31/84	12:06:32	0069406	Moderate IPATIALE, SLIGHT RED MOUTH MATERIAL, SLIGHT RED NASAL DISCHARGE, SLIGHT DECREASED GRASPING REFLEX
1/31/84	10:19:00	0045130	* NO OBSERVATIONS RECORDED.
1/30/84	9:23:24	0035743	204.0 * NO OBSERVATIONS RECORDED.
1/27/84	11:03:53	0045130	196.0 * NO OBSERVATIONS RECORDED.

ANIMAL ID: 004000589 SPECIES: D SEX: FEMALE GROUP: 7/5 NO/AG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 171.0 GRAMS QUARANTINE ID: 004000589
 REMOVAL DATE: 1/31/84 TIME: 14:53:46 REASON: DEAD

OBSERVATIONS

DATE	TIME	WEIGHT (GRAMS)	CLINICAL OBSERVATIONS
1/31/84	14:53:46	0035743	DEATH
1/31/84	14:43:56	0035743	MARKED MUNCHED POSTURE, MARKED TRITCHING, MARKED GRASPING, SLIGHT RED NASAL DISCHARGE, MARKED INCREASED SALIVATION, MARKED DECREASED GRASPING REFLEX, MODERATE DECREASED NIGHTING REFLEX
1/31/84	12:14:20	0069406	SLIGHT INACTIVITY, SLIGHT CLEAR MOUTH MATERIAL
1/30/84	10:19:02	0045130	174.0 * NO OBSERVATIONS RECORDED.
1/30/84	9:23:56	0035743	186.0 * NO OBSERVATIONS RECORDED.
1/27/84	11:09:06	0045130	188.0 * NO OBSERVATIONS RECORDED.

ANIMAL ID: 004000589 SPECIES: D SEX: FEMALE GROUP: 7/5 NO/AG
 BIRTH DATE: 12/05/83 INITIAL WEIGHT: 169.0 GRAMS QUARANTINE ID: 004000589
 REMOVAL DATE: 1/31/84 TIME: 14:53:00 REASON: DEAD

OBSERVATIONS

DATE	TIME	WEIGHT (GRAMS)	CLINICAL OBSERVATIONS
1/31/84	14:53:00	0035743	DEATH
1/31/84	14:45:02	0069406	MARKED MUNCHED POSTURE, SLIGHT RHINO COAT, MARKED INCREASED RESPIRATION RATE, MODERATE RED MOUTH STAIN, SLIGHT RED NOSE STAIN, SLIGHT RED EYE STAIN, MODERATE IPATIALE, MARKED INCREASED STABLE REFLEX
1/31/84	12:15:04	0069406	SLIGHT RED NASAL DISCHARGE, SLIGHT CLEAR MOUTH MATERIAL, SLIGHT DECREASED GRASPING REFLEX
1/31/84	10:20:14	0045130	175.0 * NO OBSERVATIONS RECORDED.
1/30/84	9:27:26	0035743	197.0 * NO OBSERVATIONS RECORDED.
1/27/84	11:09:28	0045130	190.0 * NO OBSERVATIONS RECORDED.

Individual Body Weights in Grams
278 mg(base)/kg

Males

Animal No.	Receipt	Dosing	Day 3	Day 7	Day 10	Termination Day 14	Weight* Change
84D00454	170	236	287	322	338	363	127
84D00456	172	240	290	325	347	366	126
84D00463	173	244	287	311	332	356	112
84D00472	152	232	276	320	334	356	124
84D00491	126	198	236	278	297	320	122
84D00501	162	232	264	290	293	325	93
84D00502	132	201	245	288	309	343	142
84D00514	172	229	273	305	321	345	116
84D00519	132	220	269	314	347	373	153
Mean	154.6	225	269.7	305	324.2	349.7	123.9
Range	126-173	198-244	236-290	278-325	293-347	320-373	93-153
Standard Deviation	19.63	16.38	18.84	16.83	20.44	18.11	17.14
Std. Error of Means	6.54	5.46	6.28	5.61	6.81	6.07	5.71

*Weight change is from day of dosing to termination.

Morgan--84

Individual Body Weights in Grams
278 mg(base)/kg

Females

Animal No.	Receipt	Dosing	Day 3	Day 7	Day 10	Termination Day 14	Weight* Change
84D00525	156	184	Misdosed	-	-	-	-
84D00529	135	160	188	209	215	223	63
84D00533	144	162	194	210	220	224	62
84D00537	139	178	216	226	236	245	67
84D00544	130	154	187	208	212	228	74
84D00560	143	177	209	231	238	243	66
84D00585	135	167	183	199	209	211	44
84D00592	128	176	190	212	226	240	64
84D00595	122	161	177	193	200	210	49
Mean	136.9	168.8	193.0	211.0	219.5	228.0	61.1
Range	122-156	154-184	177-216	193-231	200-238	210-245	44-74
Standard Deviation	10.08	10.26	13.16	12.58	13.22	13.69	9.83
Std. Error of Means	3.36	3.42	4.65	4.49	4.68	4.84	3.48

*Dosing to termination.

Individual Body Weights in Grams
360 mg(base)/kg

Males

Animal No.	Receipt	Dosing	Day 3	Day 7	Day 10	Termination Day 14	Weight* Change
84D00457	173	226	265	293	307	331	105
84D00466	161	210	246	280	291	278	68
84D00467	170	226	270	302	328	357	131
84D00476	170	229	267	301	311	329	100
84D00482	170	229	226	274	296	319	90
84D00495	137	213	258	306	319	344	131
84D00508	173	236	276	312	334	353	117
84D00512	168	238	287	330	344	373	135
84D00518	153	232	268	318	337	378	146
Mean	163.9	226.6	262.6	301.8	316.6	340.2	113.7
Range	137-173	210-238	226-287	274-330	291-344	278-378	68-146
Standard Deviation	11.96	9.49	17.75	17.70	18.62	30.60	25.05
Std. Error of Means	3.99	3.16	5.92	5.90	6.20	10.20	8.35

*Dosing to termination.

Morgan--86

Individual Body Weights in Grams
360 mg(base)/kg
Females

Animal No.	Receipt	Dosing	Day 3	Day 7	Day 10	Termination Day 14	Weight* Change
84D00528	149	165	191	213	221	236	71
84D00536	151	167	198	210	217	227	60
84D00561	145	175	198	215	225	224	49
84D00566	128	165	Dead	-	-	-	-
84D00570	120	154	Dead	-	-	-	-
84D00572	143	181	206	281	257	276	95
84D00584	130	159	181	208	220	235	76
84D00590	130	147	176	199	206	213	66
84D00593	139	166	Misdose	-	-	-	-
Mean	137.2	164.3	191.7	214.3	224.3	235.2	69.5
Range	120-151	147-181	176-206	199-241	206-257	213-276	49-95
Standard Deviation	10.67	10.28	11.36	14.19	17.25	21.68	15.60
Std. Error of Means	3.56	3.41	4.64	5.80	7.04	8.85	6.37

*Dosing to termination.

Individual Body Weights in Grams
464 mg(base)/kg

Males

Animal No.	Receipt	Dosing	Day 3	Day 7	Day 10	Termination Day 14	Weight* Change
84D00451	166	235	Dead	-	-	-	-
84D00470	174	222	245	287	301	319	97
84D00483	167	229	262	299	301	331	102
84D00492	130	214	238	290	316	349	135
84D00493	137	216	271	322	341	369	153
84D00504	168	237	267	322	321	358	121
84D00513	140	222	Dead	-	-	-	-
84D00516	121	185	214	253	278	314	129
84D00522	126	211	259	304	331	370	159
Mean	147.7	219.0	250.9	296.7	312.7	344.3	128
Range	121-174	185-237	214-271	253-322	278-341	314-370	97-159
Standard Deviation	20.86	15.62	20.06	23.76	21.19	23.15	23.53
Std. Error of Means	6.95	5.21	7.58	8.98	8.01	8.75	8.89

*Dosing to termination.

Morgan--88

Individual Body Weights in Grams
464 mg(base)/kg

Females

Animal No.	Receipt	Dosing	Day 3	Day 7	Day 10	Termination Day 14	Weight* Change
84D00527	157	174	193	224	230	234	60
84D00535	129	155	Dead	-	-	-	-
84D00552	132	161	200	225	237	243	82
84D00557	130	150	Dead	-	-	-	-
84D00571	128	177	Dead	-	-	-	-
84D00578	142	159	Dead	-	-	-	-
84D00579	152	186	204	226	231	235	49
84D00586	144	174	Dead	-	-	-	-
84D00591	132	159	188	199	209	223	35
Mean	138.4	166.1	196.3	218.5	226.8	233.8	56.5
Range	128-157	150-186	188-204	199-226	209-237	223-243	49-82
Standard Deviation	10.75	11.98	7.14	13.03	12.23	8.22	19.84
Std. Error of Means	3.58	3.99	3.57	6.51	6.12	4.11	9.92

*Dosing to termination.

Individual Body Weights in Grams
600 mg(base)/kg

Males

Animal No.	Receipt	Dosing	Day 3	Day 7	Day 10	Termination Day 14	Weight* Change
84D00455	171	225	Dead	-	-	-	-
84D00459	163	238	271	316	332	361	123
84D00465	161	237	265	305	320	345	108
84D00469	168	223	Dead	-	-	-	-
84D00481	166	225	253	297	314	330	105
84D00486	152	218	Dead	-	-	-	-
84D00499	138	198	Dead	-	-	-	-
84D00511	129	200	200	239	261	293	93
84D00515	124	206	Dead	-	-	-	-
Mean	152.4	218.9	247.3	289.3	306.8	332.3	107.3
Range	124-171	198-238	200-271	239-316	261-332	293-361	93-123
Standard Deviation	17.76	14.77	32.38	34.39	31.40	29.07	12.34
Std. Error of Means	5.92	4.92	16.19	17.20	15.70	14.53	6.17

*Dosing to termination.

Morgan--90

Individual Body Weights in Grams
600 mg(base)/kg

Females

Animal No.	Receipt	Dosing	Day 3	Day 7	Day 10	Termination Day 14	Weight* Change
84D00531	128	153	Dead	-	-	-	-
84D00550	150	186	Misdose	-	-	-	-
84D00551	129	147	182	193	189	200	53
84D00554	155	186	Dead	-	-	-	-
84D00558	130	155	Dead	-	-	-	-
84D00564	137	174	183	216	231	244	70
84D00569	141	190	Misdose	-	-	-	-
84D00574	132	174	Dead	-	-	-	-
84D00582	145	169	180	209	214	223	54
Mean	138.6	170.4	181.7	206.0	211.3	222.3	59
Range	128-155	147-190	180-183	193-216	189-231	200-244	53-70
Standard Deviation	9.81	15.76	1.53	11.79	21.13	22.01	9.54
Std. Error of Means	3.27	5.25	0.88	6.81	12.20	12.71	5.51

*Dosing to termination.

Individual Body Weights in Grams
775 mg(base)/kg

Males

Animal No.	Receipt	Dosing	Day 3	Day 7	Day 10	Termination Day 14	Weight* Change
84D00453	167	238	Dead	-	-	-	-
84D00462	166	228	Dead	-	-	-	-
84D00478	157	213	Dead	-	-	-	-
84D00480	160	226	Dead	-	-	-	-
84D00487	142	206	Dead	-	-	-	-
84D00503	156	199	Dead	-	-	-	-
84D00510	128	195	Dead	-	-	-	-
84D00520	120	197	Dead	-	-	-	-
84D00521	163	238	Dead	-	-	-	-
Mean	151.0	215.6					
Range	120-167	195-238					
Standard Deviation	17.10	17.36					
Std. Error of Means	5.70	5.79					

*Dosing to termination.

Morgan--92

Individual Body Weights in Grams
775 mg(base)/kg

Females

Animal No.	Receipt	Dosing	Day 3	Day 7	Day 10	Termination Day 14	Weight* Change
84D00524	138	170	Dead	-	-	-	-
84D00526	152	177	Dead	-	-	-	-
84D00553	152	190	Dead	-	-	-	-
84D00559	134	166	Dead	-	-	-	-
84D00562	123	152	Dead	-	-	-	-
84D00565	133	156	Dead	-	-	-	-
84D00575	149	182	Dead	-	-	-	-
84D00588	142	174	Dead	-	-	-	-
84D00589	141	175	Dead	-	-	-	-
Mean	140.4	171.3					
Range	123-152	152-190					
Standard Deviation	9.68	12.01					
Std. Error of Means	3.23	4.00					

*Dosing to termination.

Individual Body Weights in Grams
Vehicle Control
Male and Female

Animal No.	Receipt	Dosing	Day 3	Day 7	Day 10	Termination Day 14	Weight* Change
MALE							
84D00460	166	225	266	293	314	342	117
84D00474	164	226	276	318	336	359	133
84D00475	164	223	261	293	307	325	102
84D00489	168	233	285	320	337	359	126
04D00496	143	218	264	300	323	351	133
Mean	161	225	270	304.8	323.4	347.2	122.2
Range	143-168	218-233	261-285	293-320	307-337	325-359	102-133
Standard Deviation	10.20	5.43	10.68	13.29	13.46	14.25	13.07
Std. Error of Means	4.56	2.43	4.78	5.94	6.02	6.38	5.84
FEMALE							
84D00530	126	164	196	211	218	234	70
84D00543	139	152	178	194	201	204	52
84D00563	145	162	188	198	201	214	52
84D00576	140	168	193	206	214	218	50
84D00583	142	175	204	224	230	238	63
Mean	138.4	164.2	191.8	206.6	212.8	221.6	57.4
Range	126-145	152-175	178-204	194-224	201-230	204-238	50-70
Standard Deviation	7.30	8.44	9.65	11.78	12.27	14.17	8.71
Std. Error of Means	3.27	3.77	4.32	5.27	5.49	6.34	3.89

*Dosing to termination.

Morgan--94

Individual Body Weights in Grams
Cage Control
Male and Female

Animal No.	Receipt	Dosing	Day 3	Day 7	Day 10	Termination Day 14	Weight* Change
MALE							
84D00464	155	224	268	305	319	339	115
84D00484	160	215	261	295	309	320	105
84D00498	166	238	290	327	347	369	131
84D00505	128	220	270	315	337	367	147
84D00509	142	210	252	290	297	316	106
Mean	150.2	221.4	268.2	306.4	321.8	342.2	120.8
Range	128-166	210-238	252-290	290-327	297-347	316-369	105-147
Standard Deviation	15.24	10.67	14.08	14.99	20.38	25.11	17.98
Std. Error of Means	6.81	4.77	6.30	6.71	9.11	11.23	8.04
FEMALE							
84D00540	145	163	190	206	206	214	51
84D00542	151	177	206	221	229	239	62
84D00573	157	180	199	223	226	233	53
84D00587	152	171	205	219	225	238	67
84D00594	128	170	201	212	219	231	61
Mean	146.6	172.2	200.2	216.2	221	231	58.8
Range	128-157	163-180	190-206	206-223	206-229	214-239	51-61
Standard Deviation	11.24	6.61	6.38	7.05	9.14	10.07	6.65
Std. Error of Means	5.03	2.97	2.85	3.15	4.09	4.51	2.97

*Dosing to termination.

PATHOLOGY REPORT

GLP Study 83-019

Oral Lethal Dose (LD₅₀) Test in Rats of Guanidine.HCL (CH₅N₃HCL)
(CAS No. 22661-87-6)

History: The male and female Sprague-Dawley rats in this study were divided into 7 groups. All groups but the cage controls received a single dose of vehicle or vehicle and test compound by oral gavage. The solution dosed with, dosage level, and number of rats in each group were as follow:

- Group 1 (278 mg/kg) - 9 males, 8 females.
- Group 2 (360 mg/ml) - 9 males, 8 females.
- Group 3 (464 mg/ml) - 9 males, 9 females.
- Group 4 (600 mg/ml) - 9 males, 7 females.
- Group 5 (775 mg/ml) - 9 males, 9 females.
- Group 6 (Vehicle Controls) - 5 males, 5 females.
- Group 7 (Cage Controls) - 5 males, 5 females.

Thirty-six rats were found dead between 3 hours and 56 minutes and 46 hours and 42 minutes after being dosed with test compound.

The remaining rats survived until completion of the study 14 days after dosing. The rats were anesthetized with pentobarbital, intraperitoneal injection, and killed by exsanguination from severed axillary vessels.

Gross necropsy findings: Twenty-one of the 36 rats that died had gross lesions that were due to the tested material. The test related lesions were restricted to the digestive system and consisted of black/serosanguineous material in the stomach, focal depressions in the glandular mucosa of the stomach, multifocal to diffuse red areas in the glandular mucosa of the stomach, black and tarry material in the intestine, and black and tarry feces. Each of the 21 rats had one or more of these lesions. Multifocal to diffuse red areas in the glandular mucosa of the stomach was the most common lesion and was present in 2/5* males in group 4,

*Number of rats affected/number of rats in the group, or number of rats affected/number of rats that died.

APPENDIX G

7/9 males in group 5, 1/2 females in group 2, 1/5 females in group 3, 3/4 females in group 4, and 6/9 females in group 5.

Other findings consisted of a wet muzzle and brown material (most likely porphyrin) on the muzzle, forepaws, and hair around the eyes. These findings were considered to be nonspecific.

Postmortem autolysis (PMA) was present in 1 male and 1 female rat. The thymus of the male contained red foci that were due to autolytic change.

No gross lesions (NGL) were observed in 1 male rat in group 4 and 2 female rats in group 3 that died.

Necropsies revealed no test compound related gross lesions in male or female rats that were killed at termination of the study. Two male rats and 1 female rat had a unilateral dilated renal pelvis, which is considered to be an incidental congenital lesion. One male rat had a solitary linear white focus in the liver that was due to the injection of pentobarbital.

Microscopic Findings: Several rats exhibited central nervous system (CNS) signs. Some rats that exhibited CNS signs died and others survived. The cerebrum, brainstem, and cerebellum of 4 of these rats that died (84D00451, 84D00462, 84D00469, 84D00557) were examined by light microscopy and no lesions were observed.

Table: Summary of Deaths and Lesions by Group

	<u>Male</u>							<u>Female</u>						
Group #:	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Rats per group:	9	9	9	9	9	5	5	8	8	9	7	9	5	5
NGL:	8	9	6	5	0	5	5	7	6	6	3	0	5	5
Died:			2	5	9				2	5	4	9		
Stomach:														
Black/serosanguinous material					2					1				
Glandular mucosa, focal depressions					1									
Glandular mucosa, red, multifocal to diffuse					2	7			1	1	3	6		
Intestine: Black tarry material					1									
Feces: Black and Tarry					1									
Kidney: Dilated pelvis, unilateral					1	1				1				
Liver: White focus, linear					1									

Table: Summary of Deaths and Lesions by Group (Cont'd)

	<u>Male</u>							<u>Female</u>						
Group #:	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Rats per group:	9	9	9	9	9	5	5	8	8	9	7	9	5	5
NGL:	8	9	6	5	0	5	5	7	6	6	3	0	5	5
Died:	2 5 9							2 5 4 9						
Muzzle:														
Wet	2 3 9							1 3 3 8						
Brown material	1													
Forepaws: Brown material	1													
Eyes: Brown material	4 6							2 4						
Thymus: Red foci	1													
PMA: Generalized	1							1						

Summary:

1. Gross lesions, due to the tested compound, were present in the digestive system of 10/16 male and 11/20 female rats that died.
2. The number and pattern of deaths suggest a dose response in the male and female rats.
3. No test related gross lesions were observed in male or female rats that were cage controls, vehicle controls or dosed with tested compound that were killed at completion of the test.

Glen E. Marrs, Jr.

GLEN E. MARRS, JR., DVM, MS, ACVP
MAJ, VC

Assistant Chief, Pathology Services Group
21 March 1984

OFFICIAL DISTRIBUTION LIST

Commander
US Army Medical Research
and Development Command
ATTN: SGRD-RMS/Mrs. Madigan
Fort Detrick, MD 21701-5012

Defense Technical Information Center
ATTN: DTIC/DDAB (2 copies)
Cameron Station
Alexandria, VA 22304-6145

Office of Under Secretary of Defense
Research and Engineering
ATTN: R&AT (E&LS), Room 3D129
The Pentagon
Washington, DC 20301-3080

The Surgeon General
ATTN: DASG-TLO
Washington, DC 20310

HQ DA (DASG-ZXA)
WASH DC 20310-2300

Commandant
Academy of Health Sciences
US Army
ATTN: HSHA-CDM
Fort Sam Houston, TX 78234-6100

Uniformed Services University
of Health Sciences
Office of Grants Management
4301 Jones Bridge Road
Bethesda, MD 20814-4799

US Army Research Office
ATTN: Chemical and Biological
Sciences Division
PO Box 12211
Research Triangle Park, NC 27709-2211

Director
ATTN: SGRD-UWZ-L
Walter Reed Army Institute
of Research
Washington, DC 20307-5100

Commander
US Army Medical Research Institute
of Infectious Diseases
ATTN: SGRD-ULZ-A
Fort Detrick, MD 21701-5011

Commander
US Army Medical Bioengineering
Research & Development Laboratory
ATTN: SGRD-UBG-M
Fort Detrick, Bldg 568
Frederick, MD 21701-5010

Commander
US Army Medical Bioengineering
Research & Development Laboratory
ATTN: Library
Fort Detrick, Bldg 568
Frederick, MD 21701-5010

Commander
US Army Research Institute
of Environmental Medicine
ATTN: SGRD-UE-RSA
Kansas Street
Natick, MA 01760-5007

Commander
US Army Institute of Surgical Research
Fort Sam Houston, TX 78234-6200

Commander
US Army Research Institute
of Chemical Defense
ATTN: SGRD-UV-AJ
Aberdeen Proving Ground, MD 21010-5425

Commander
US Army Aeromedical Research Laboratory
Fort Rucker, AL 36362-5000

AIR FORCE Office of Scientific
Research (NL)
Building 410, Room A217
Bolling Air Force Base, DC 20332-6448

Commander
USAFSAM/TSZ
Brooks Air Force Base, TX 78235-5000

Head, Biological Sciences Division
OFFICE OF NAVAL RESEARCH
800 North Quincy Street
Arlington, VA 22217-5000