



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
Food and Drug Administration

Memorandum

Date APR 15 1997 5743 '97 JUN -2 A10 :38

From Acting Director, Division of Programs and Enforcement Policy, Office of Special Nutritionals, HFS-455

Subject 75-Day Premarket Notification for New Dietary Ingredients

To Dockets Management Branch, HFS-305

New Dietary Ingredient: Rauwolfia Vomitoria Afz.

Firm: Natural Source International, Ltd.

Date Received by FDA: March 20, 1997

90-Day Date: June 21, 1997

In accordance with the requirements of section 413(a)(2) of the Federal Food, Drug, and Cosmetic Act, the attached 75-day premarket notification for the aforementioned new dietary ingredient should be placed on public display in docket number 95S-0316 after June 21, 1997.

Sincerely yours,
Nicholas Deuy for
James Tanner, Ph.D.
Acting Director,
Division of Programs and
Enforcement Policy
Office of Special Nutritionals
Center for Food Safety and
Applied Nutrition

Attachment

cc:
HFS-22, CCO
HFS-450 (r/f, OSN w/control slip:TRAC#51803 & cpy incoming)
HFS-456 (r/f, Latham, Moore)
r/d:HFS-456:JELatham;jel:04/07/97:DocName:#51803.mem:Disc3

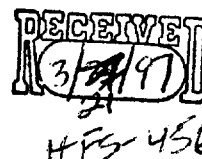
95S-0316

RPT 11

Natural Source International, Ltd.

444 Madison Avenue, Suite 2600
New York, NY 10022

Tel : (212) 752-6700
Fax : (212) 319-7584



March 20, 1997

Director of Division of Programs and Enforcement Policy
Office of Special Nutritionals
Center for Food Safety & Applied Nutrition
HFS-455
Food and Drug Administration
200 C Street, SW
Washington, D.C. 20204

Attention: Ms. Peggy Binzer

Re: Notification to the Secretary of Health and Human Services pursuant to Section 8(a)(2) of the Dietary Supplement Health and Education Act of October 25, 1994 (21 USC: Federal Food, Drug and Cosmetic Act)

Dear Ms. Binzer:

Natural Source International Ltd. ("Natural Source") is a corporation incorporated pursuant to the laws of the State of New York. The purpose of Natural Source is to research, manufacture and distribute organic health care products.

We hereby present to you information regarding **Rauwolfia Vomitoria Afz., a new Dietary Ingredient** that we intend to market as a Dietary Supplement in the United States under the name of "Rovol V".

Rovol V is produced from the root bark of a shrub or small tree of the name of Rauwolfia Vomitoria Afz. which is native to tropical Africa. Both African and Asians have used it for centuries for dietary purposes.

Rovol V is a safe product, having no toxic side effects, as shown by the toxicology study performed by SIR International, a French research institute, a copy of which is enclosed herein for your review. As clinical research has demonstrated, nutritional supplements can promote good health and prevent disease, thereby mitigating the need for expensive medical procedures. Consequently, we feel that the American public shall benefit from the marketing of Rovol V.

We forward to you herewith the Rovol V information file in order to provide your office with documentation evidencing the fact that Rovol V is safe for human consumption.

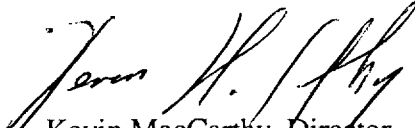
Please, note that Natural Source does not intend to make any claims (as defined in section 403(r)(6) of the Federal Food, Drug and Cosmetic Act) for this product.

It is our understanding that upon the expiration of seventy six (76) days following your office's receipt of this notification and, absent any responsive commentary from your office, Natural Source will be able to market Rovol V in the United States.

Upon receipt of this letter we would appreciate it if you could forward to the undersigned an acknowledgment of same.

Should you have any questions or comments regarding the enclosed Rovol V information file, please do not hesitate to contact us.

Very truly yours,


Kevin MacCarthy, Director

Encls.

**Natural Source International, Ltd.
444 Madison Avenue, Suite 2600
New York, NY 10022**

ROVOL V

A NEW DIETARY INGREDIENT

INFORMATION FILE

**Office of Special Nutritionals
Center for Food Safety & Applied
Nutrition
HFS-455
Food and Drug Administration
200 C Street, S.W.
Washington D.C. 20204**

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- (7) Certificate of compliance with FDA standards from Capsugel, the capsule's manufacturer
- (8) Sample label

ROVOL V COMPOSITION

ROVOL V
DIETARY SUPPLEMENT OF THE ROOT BARK OF
RAUWOLFIA VOMITORIA

COMPOSITION

Names of the Components	Quantity per Capsule	Function	Pharmacopoeia References
<u>Active Principle</u> Extract of Root Bark of Rauwolfia Vomitoria	30 mg	Active Principle	
<u>Excipients</u>			
Cellulose Microcrystalline	60 mg	Solvent/Binder	European Pharmacopoeia 2 II - 316 (1984) US Ph 23-NF 18
Magnesium Stearate	3 mg	Lubricant	European Pharmacopoeia 2 II 229 (1983) US Ph 23-NF 18
Corn Starch	22 mg	Disintegrating	European Pharmacopoeia 2 II - 344 (1986) US Ph 23-NF 18
Gelatin Capsule	Q.S.	Capsule	French Pharmacopoeia 10 (1986) US Ph 23-NF 18

ROVOL V TOXICOLOGY STUDY

- **Certificate of Accuracy - Translation from French to English**
- **Affidavit - English translation**
- **Affidavit - French version**
- **Toxicology Study**

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CERTIFICATE OF ACCURACY

TRANSLATION:
FROM FRENCH TO ENGLISH

STATE OF NEW YORK)
) ss:
COUNTY OF NEW YORK)

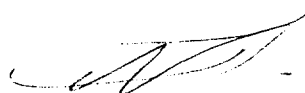
On this day personally appeared before me Nadia Kaddour who, after being duly sworn, deposes and says:

That she is thoroughly conversant with the French and English languages and able to translate from French into English;

That she has carefully made the attached translation of the following documents from the original document written in the French language:

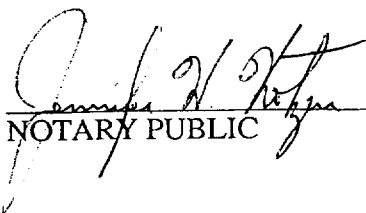
- Affidavit executed by Marie-Gilberte Borzeix and Professor Jean Cahn;
- Toxicology Study; and

That the attached translation is a true and correct English version of such original, to the best of her knowledge and belief.



Nadia Kaddour

Sworn to and subscribed
before me this 20th day
of March 1997.



NOTARY PUBLIC

JENNIFER W. KOTZEN
NOTARY PUBLIC, STATE OF NEW YORK
NO. 02K05053916
QUALIFIED IN NEW YORK COUNTY
COMMISSION EXPIRES FEB. 26, 1998

We, the undersigned, declare that this assay was carried out under our supervision according to procedures described in the present report and that the latter is the faithful account of results obtained.

Montrouge, 30 décembre 1993

(signed) Marie-Gilberte BORZEIX, M. Sc.
Director de Recherche

(signed) Professeur Jean CAHN, MD. D. Sc.
Histopathologiste

1 - DESCRIPTION OF ASSAY

- 1.1 Objective of the assay** To determine tested product subacute toxicity following repeated oral administration for 28 days to the rat.
- 1.2 Assay carried out by** SIR international
6, rue Blanche
92120 MONTROUGE
France
- 1.3 Supervisor** Marie-Gilberte BORZEIX, Master of Science, DEA in psychophysiology (Paris VI university), expert in toxicology and pharmacology.
SIR international, 6 rue Blanche, 92120 Montrouge.
- 1.4 Pathologist** Jean CAHN, MD, Doctor of Science, former histology and anatomopathology assistant at the Paris Faculty of Medicine.
SIR international, 6 rue Blanche, 92120 Montrouge.
- 1.5 Veterinarian** Animal sanitary condition was checked by Dr. Ch. BOUTELIER, biologist veterinarian, chief of Services (retired). 15 rue du Limousin, 91220 Brétigny s/Orge.
- 1.6 Technicians** Jean-Pierre AKIMJAK, BTS (qualified technician) in biological analysis, hemato-coprology certificate from the Paris Faculty of Medicine.
SIR international.
- Jean ANGIGNARD, BTS in biological analysis, Ecole supérieure de biochimie et de biologie, Paris.
SIR international.
- Dominique ANGIGNARD, BTS in biochemistry, Ecole supérieure de biochimie et de biologie, Paris.
SIR international.

Philippe CHARLES, BTS in biological analysis,
Ecole supérieure de biochimie et de biologie, Paris.
SIR international.

Maguy LENFANT, histology technician, Yerevan,
USSR.
SIR international.

Pierre ROUSSELON, animal care technician.
SIR international.

Jean VIKINNE, animal care technician.
SIR international.

Suzanne WEBER, BTS in biological analysis, Ecole
supérieure de biochimie et de biologie, Paris.
SIR international.

- 1.7 Dates of assay** October-December 1993.
- 1.8 Date of report** 30 December 1993.
- 1.9 Filing** All individual data, the protocol, and a copy of the final report will be kept for 5 years in SIR international files.
- 1.10 Statistical analysis** Statistical data processing was carried out with SPSS software for WINDOWS 5.0 on a 486 DX2-66 computer.
- Statistical study was carried out with two boundaries to test the following null (H_0) hypothesis: "in male and female rats alike, the three experimental series are similar", first species risk alpha being 5 percent.
- Variance analysis was carried out for all quantitative data using parametric (AOV) or non parametric (Kruskall-Wallis test) methods according to whether distribution was normal or not. In case of statistically significant inter-series difference, either the Neumann-Keuls parametric test or the Mann-Whitney "U" non parametric test was applied.
- For organ weight, covariance analysis was applied to raw data to take account of eventual differences related to body weight.

2 - TESTED PRODUCT

- 2.1 Substance** Rovol V (batch n° RDJK 1109).
- 2.2 Supplier** MU Laboratory
Z.A.C. du Pra de Serre
63960 VEYRE-MONTON
France

3 - SOLVENT

- 3.1 Solvent** Twice-distilled water.
- 3.2 Supplier** Prepared on site using a still.
(SERLABO, 26 rue St Gilles, 75003 Paris, France).

4 - ASSAY PREPARATION

- 4.1 Species** Rat.
- 4.2 Strain** Sprague-Dawley - OFA ICo: OFA - SD (IOPS
Caw).
- 4.3 Breeder** Iffa Credo, Domaine des Oncins, 69592
L'ARBRESLE Cedex.
- 4.4 Total number of
animals received** 32 male rats and 32 female rats.

- | | | |
|-----|---------------------------------------|---|
| 4.5 | Age at start of assay | Five weeks (34/36 days). |
| 4.6 | Weight at start of assay | Males (150 g)
Females (130 g) |
| 4.7 | Number of experimental animals | 30 males
30 females |
| 4.8 | Acclimatization period | Rats are acclimatized for 5 days, during which they are regularly weighed and trained for intragastric treatment so as to eliminate any deficient animal. |
| 4.9 | Identification | Each cage is identified using a colored label. Rats, two to each cage, are identified by an ink marking of the same color on the base of the tail. |

5 - STABULATION

- | | | |
|-----|--------------------------|---|
| 5.1 | Animal house | Animals are kept in a room where temperature is set at 22 +/- 1°C and humidity varies from 40% to 70%. A clock controls the 12 hour day/night cycle (7 AM/7PM). Filtered air is renewed 8 times per hour. |
| 5.2 | Housing | Polypropylene cages containing a dust-free sawdust litter (UAR, EPINAY S/ORGE, France). Each 43x23x18.5 cm cage contains five rats. |
| 5.3 | Sanitary measures | Sawdust is renewed twice a week. Cages are washed and disinfected every week. |
| 5.4 | Food | Animal feed AO4-10 (UAR, EPINAY S/ORGE, France) <i>ad libitum</i> . |
| 5.5 | Food analysis | Quality analysis voucher supplied by UAR. |

- 5.6 **Water** Tap water from the local network was available *ad libitum* in feeding bottles.
- 5.7 **Water analysis** Water is analyzed at regular intervals by the Département des Hauts de Seine (local authority).

6 - METHOD

- 6.1 **Product Preparation** Ochre yellow powder dissolved in distilled water.
- 6.2 **Doses**
Male rats: 38.8 mg.kg⁻¹ (1/20 of LD50) and 155.2 mg.kg⁻¹ (1/5 of LD50).
Females: 38.8 mg.kg⁻¹ (1/20 of LD50) and 155.2 mg.kg⁻¹ (1/5 of LD50).
- 6.3 **Volume** Low dose: 2.5 ml.kg⁻¹
High dose: 10.0 ml.kg⁻¹
- 6.4 **Route of administration** Oral (intra-gastric intubation).
- 6.5 **Justification of route choice** Oral route recommended for clinical use.
- 6.6 **Frequency and length of treatment** Daily, 7 days a week for 28 consecutive days.
- 6.7 **Observation** Treatments were applied between 9 and 11 AM. Clinical observation of animals was carried out immediately after treatment and renewed during the day if necessary. It included, but was not limited to, any change affecting skin, eyes, mucous membranes, respiratory and circulatory systems, central and peripheral nervous systems, neuromotor behavior, food and water intakes, aspect of feces and urine. Rats were weighed prior to start of assay, then twice a week. At termination of assay, all

survivors were euthanized and examined postmortem.

- 6.8 Weight increase** To calculate weight evolution, animals were weighed twice a week (Tuesday/Friday).
- 6.9 Food and water intakes** Food and water intakes were measured twice a week (Tuesday/Friday).
- 6.10 Nutritional efficacy coefficient** It was calculated using the following formula:
- $$\frac{\text{daily food intake (g/rat)}}{\text{weight evolution (g)}} \text{ in x days}$$

7 - CLINICAL CHEMISTRY

- 7.1 Hematology**
- Cells (erythrocytes, leucocytes) were counted using a Coulter counter (Coultronics, model ZM). Erythrocyte counts are expressed in tera.l^{-1} , and leucocyte counts in giga.l^{-1} .
 - Thrombocyte counts, expressed in giga.l^{-1} , were carried out with the same counter.
 - Hemoglobin (mmol.l^{-1}) was measured with a hemoglobin meter (Coultronics).
 - Hematocrit (Ht) was obtained by blood sample centrifugation (14813 g for 5 minutes) in a Hauwsley centrifuge (Jouan).
 - Mean corpuscular volume (fl) was calculated from:

$$\text{MCV} = \frac{\text{Ht} \times 1000}{\text{erythrocyte count}}$$

- Mean corpuscular concentration (mmol.l^{-1}) was calculated from:

$$\text{MCC} = \frac{\text{hemoglobin}}{\text{hematocrit}}$$

7.2 Blood Chemistry

- Calcium (mmol.l^{-1}), measured according to Sarkar and Chauhan (1967).
- Total protein (g.l^{-1}), measured using a technique adapted from the Biuret reaction, according to Weichselbaum (1946).
- Urea (mmol.l^{-1}), measured using a method adapted from that of Fawcett and Scott (1960).
- Creatinin (mmol.l^{-1}), measured according to Jaffe, using the colorimetric method of Popper et al. (1937).
- Total bilirubin (umol.l^{-1}), measured according to Jendrassik and Grof (1938).
- Alanine aminotransferase (ALAT), measured using method optimized according to recommendations of the German Society for Clinical Chemistry (1970, 1972), and expressed in IU.l^{-1} .
- Aspartate aminotransferase (ASAT), measured using method optimized according to recommendations of the German Society for Clinical Chemistry (1970, 1972), and expressed in IU.l^{-1} .
- Alkaline phosphatases (IU.l^{-1}), measured according to Bowers and McComb (1975).
- Total cholesterol (mmol.l^{-1}), measured according to the CHOD-PAP enzymatic method.

7.3 Urine analysis

A diuresis test was carried out over a 24 hour period following a 30 ml.kg^{-1} water overload (which included tested product at the 28th treatment). Animals, placed in individual cages for the study of metabolism, were deprived of water and food during this period.

Urine volume was measured 7 and 24 hours following water overload and percentage of excretion compared to this overload was calculated.

Biochemical measurements were carried out on urine collected between 7 and 24 hours.

- Creatinin (mmol.l^{-1})

- Osmolarity (mOsm.l⁻¹), measured with a reflectometer (ERMA Optical Works Ltd, Japan).
- Reagent strips (Combur 9-test R- Boehringer Mannheim) were used to detect proteins, glucose, bilirubin, urobilinogen, ketone compounds, nitrites, leucocytes, blood and to estimate pH.

8 - PATHOLOGY

- 8.1 Euthanasia** All the rats were euthanized by decapitation.
- 8.2 Postmortem examination** Postmortem examination was carefully performed on all the animals, special attention being paid to macroscopic examination of the gastrointestinal tract.
- The following organs were weighed as soon as possible after excision so as to avoid tissue dehydration as much as possible: kidneys (left and right), adrenals (left and right), liver, heart, thymus, gonads (left and right), spleen.
- N.B. Organ weight is expressed as absolute value and as relative value compared to body weight at time of sacrifice.*
- 8.3 Anatomopathology** The following organs are excised, fixed in 10% buffered formaldehyde and paraffin-embedded: aorta, caecum, heart, colon, duodenum, epididymes, stomach, liver, salivary glands, gonads (testicles*, ovaries), pituitary, ileon, Peyer plaques, jejunum, cervical and mesenteral lymph nodes, oesophagus, pancreas, lungs, prostate, spleen, kidneys, thymus, thyroid and parathyroids, adrenals, uterus, bladder, eye**.
- * 24 hour fixation in Stieve's fixative.
* 2 hour fixation in Stieve's fixative.
- Histologic study of the following organs: heart, duodenum, liver, gonads, kidneys, spleen, thyroid and parathyroids was carried out on 5 um sections,

stained with Masson's trichrome stain. Slides were examined under an Orthoplan microscope (Leitz).

N.B. Histology of these organs was studied for the control and high dose series. Other organs were preserved after paraffin embedding.

9 - RESULTS

TABLE i: LIST OF TABLES		
PARAMETERS	SEX	
	MALE	FEMALE
Body weight	1 to 5	32 to 37
Food intake	6 to 8	38 to 40
Water intake	9 to 11	41 to 43
Water/Food ratio	12 to 14	44 to 46
Hematology	15 to 17	47 to 49
Biochemistry (blood, urine)	18 to 21	50 to 56
Urine (volume, pH)	22 to 25	57 to 60
Organ weight	26 to 31	61 to 67

Individual data are listed in appendix A 1 to 1 27 for male rats and A 58 to A 84 for female rats.

9.1 Mortality

No mortality was observed during the assay.

9.2 Clinical examination

No detectable modification of neuromotor behavior was observed using a low dose (38.8 mg.kg⁻¹), in male and female rats alike.

With a high dose (155.2 mg.kg⁻¹), the first clinical signs are noted after five days of treatment in females and after seven days in males. They consist in palpebral ptosis (closure of about 50% of the palpebral slit) in respectively 70% of cases in males and 50% in females; it is present in all the males from the 9th day of treatment on, and in 70% of the females (maximum) from the 7th day on.

From D14 on, clinical signs in the male rats consist, on the one hand, of a tight palpebral ptosis (100% of cases), of generalized tremors (60%), of an attitude of flexion accompanied by akinesia in 40% of cases; on the other hand, and in contrast, locomotor hyperexcitation is present in 40% of subjects.

From D12 on, daily clinical examination of females rather detects locomotor hyperexcitation, which is present in 80% of cases from D18 on.

All these behavioral modifications persist until the end of the assay.

9.3 Weight evolution

Weight increase was progressive and regular, similar in the three experimental series for each sex. This shows that Rovol V does not affect weight gain of young male and female rats (Tables 1 to 5 and 32 to 37 - Diagrams 1 and 5).

9.4 Food intake

Food intake was never modified by Rovol V intragastric administration (Tables 6 to 8 and 38 to 40 - Diagrams 2 and 6).

9.5 Water intake

Water intake was never modified by Rovol V intragastric administration (Tables 9 to 11 and 41 to 43 - Diagrams 3 and 7).

9.6 Water/food ratio

This ratio was never modified by Rovol V intragastric administration (Tables 12 to 14 and 44 to 46).

9.7 Nutritional efficacy coefficient

This ratio progressively increases with time in male rats and starting from the second week in females; this reflects a progressive stabilization of food intake in animals that were very young at assay initiation, 35 days on average (Diagrams 4 and 8).

9.8 Hematology

No variation of hematologic constants, either measured or calculated, was observed during the assay (Tables 15 to 17 and 47 to 49).

9.9 Clinical biochemistry and urinary data

No variation of biochemistry and urinary data was detected in male rats; there was only a statistically significant decrease of urine pH using the high dose (Table 25), but it remained however within physiological limits.

In females, at the high dose, urine volume passed between 7 and 24 hours increases, and it also globally increases over 24 hours (Table 60). This leads to decrease of urine osmolarity and creatinin excretion (Table 54), through a dilution effect. Creatininemia is slightly but significantly higher in the two treated series than in the controls (76.6 versus 70.3 mmol/l), but this has no biological significance (Table 55). However, as the data are taken into account for calculating creatinin clearance, the latter increases at the low dose and decreases at the high dose (Table 55): however, these values always remain within limits of physiological variations in the rat (Table ii).

TABLE ii: PRESENT CREATININ CLEARANCE VALUES AND HISTORICAL DATA

STUDY n°	DATE	SERIES	CREATININ CLEARANCE ml. min ⁻¹ (MEAN ± MSE)
		Controls	0.67 ± 0.046
R/92/5831/2/02	12/1993	ROVOL V (38.8 mg.kg ⁻¹)	0.86 ± 0.054
		ROVOL V (155.2 mg. kg ⁻¹)	0.51 ± 0.058
R/92/5831/3/01	11/1993	Controls	0.73 ± 0.034
R/92/5831/2/01	03/1993	Controls	0.58 ± 0.047

The same reasoning applies to alanine aminotransferase (ALAT, Tables 51 and 56); there is a statistically significant difference between "low dose" and "high dose" ROVOL V series, yet their respective values do not differ from those of controls, all these values remaining inside the rat "normality" zone.

9.10 Postmortem

9.10.1 Macroscopic examination

Postmortem examination did not reveal any anomaly that could be related to ROVOL V treatment. The main detected anomaly concerns the gastric mucosa, but this is directly related to stress due to the 24 hour fast prior to sacrifice. Other modifications noted belong to spontaneous pathology of the rat (Table iii).

TABLE iii: MACROSCOPIC ABNORMALITY DISTRIBUTION			
SERIES		MALE MICE	FEMALE MICE
Controls			2497 spotted liver 2501 yellowish liver
ROVOL V	Low Dose	2480 two gastric ulcers 2481 two gastric ulcers 2473 five gastric ulcers	2492 one adrenal encapsulated in kidney 2506 three gastric ulcers
	High Dose	2461 two gastric ulcers 2487 one gastric ulcer	2508 one lung adhering to thoracic cage

9.10.2 Organ Weight

Compared to corresponding controls, liver weight increases in high dose treated males and thymus weight decreases in females at both tested doses.

Other significant variations in heart weight in males and adrenal and liver weights in females reflect a difference between low and high ROVOL V doses that is not significant when compared to controls.

10 - CONCLUSION

Daily oral administration of ROVOL V for 28 consecutive days, at doses of 38.8 and 155.2 mg.kg⁻¹ which respectively represent one twentieth and one fifth of LD₅₀, has entailed no lethality. Taken together, data collected during this predictive toxicity assay indicate that at the tested doses, and compared to corresponding controls, ROVOL V:

- induces only at high dose, in both males and females, neuromotor behavior modifications. These are characterized in males by palpebral ptosis, tremors and reduction of locomotor activity; in females, palpebral ptosis is accompanied by locomotor hyperexcitation.
- does not modify weight increase, in both males and females.
- does not modify food and water intakes and the water/food ratio.
- does not induce modification of hematologic constants.
- does not pathologically modify blood and urine constants; it does not alter liver and kidney functions.
- does not induce any macroscopically detectable anomaly.
- induces liver weight increase in male at high dose and thymus weight decrease in females at both tested doses.

MU laboratoire
substances naturelles

CONTROL SHEET

Powder
Lot n°

Rovol V
RDJK 1109

ASSAY	RESULTS	STANDARD
Organoleptic characteristics	Acceptable	Powder ochre yellow Characteristic odor
Water Content	3.74%	< 5%
Heavy metals	Acceptable	< 30 ppm
Arsenic	Negative	Negative
Sulfuric Ashes	17.89%	< 20%
Spectrum	Acceptable	Identical to the reference spectrum
Purity	87.81%	≥ 85%

Control Reference : RDJK 1109

Decision : Acceptable

Veyre-Monton, November 8, 1993

Pharmacist
Michel Dubourdeaux

RAT AND MOUSE MAINTENANCE DIET

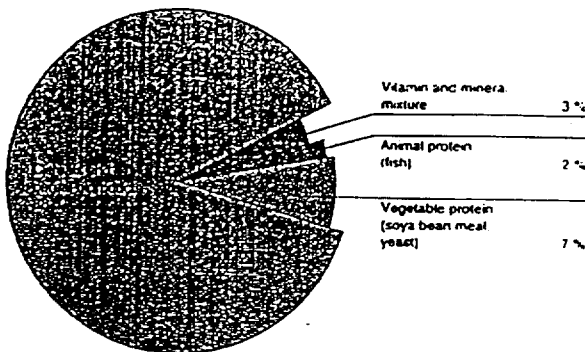
A04

Certified : A04
Irradiated Certified: A04-10

Control : A04C
Control Irradiated: A04C-10

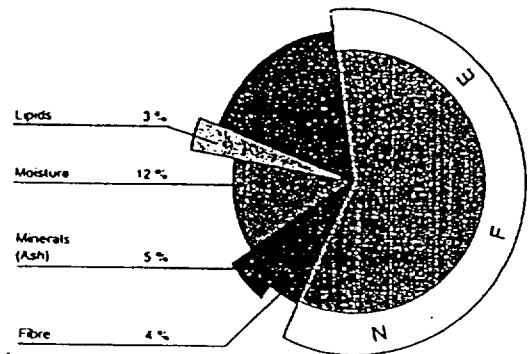
Form : Pellets \varnothing 15 mm
Standard pack: certified: 25 kg paper bag
control : 25 kg double paper bag
with aluminium on the outside
Rate per day : rat 18 to 25 g, mouse 5 to 10 g.

Formula



Average analysis

Calorific value (kcal/kg) 2 900



Amino acid values (calculated/kg)

Arginine	9 800 mg
Cystine	2 300 mg
Lysine	8 500 mg
Methionine	3 200 mg
Tryptophan	1 900 mg
Glycine	8 100 mg

Fatty acid values (calculated/kg)

palmitic ac.	2 600 mg
palmitoleic ac.	Traces
stearic ac.	500 mg
oleic ac.	8 000 mg
linoleic ac.	14 500 mg
linolenic ac.	Traces

Mineral and Vitamin content

MINERALS calculated/kg		
	Nat. val.	GMV/200g
P	mg 5 900	
Ca	mg 3 300	
Na	mg 300	
K	mg 6 700	
Mg	mg 1 900	
Mn	mg 50	
Fe	mg 90	
Cu	mg 15	
Zn	mg 40	
Co	mg T	
I	mg 0,3	

VITAMINS calculated/kg			
	Nat. val.	GMV/200g	TOTAL
Vitam. A ...	UI	Traces	7 500
Vitam. D3 ..	UI	Traces	1 500
Vitam. B1 ..	mg	6	7
Vitam. B2 ..	mg	2	6,5
Vitam. B3 ..	mg	10	16,5
Vitam. B6 ..	mg	1,3	2,6
Vitam. B12 ..	mg	0,01	0,02
Vitam. E ...	mg	15	30
Vitam. K3 ..	mg	0,25	2,5
Vitam. PP ..	mg	60	75
Ac. Folic ...	mg	0,5	0,5
Biotine	mg	0,04	0,04
Choline	mg	1 200	1 600

"CONTROL"

PARAMETERS		CONTROL	TEST	REFERENCE
Size of pellets	mm	15,5	16,5	16,5
Crushing strength	kg/cm ²	15	20,9 ± 3	25
Scratch resistance	%	96	98 % ± 1 %	—
Dust	%	—	< 1	4
Mineral mixture				
Trace element premix				
Vitamin A premix				
Water				
Proteins	%	10	12,5 ± 0,7 %	14
Lipids	%	16	17,9 ± 0,8 %	20
Carbohydrates (NFE)	%	2,5	3,1 ± 0,3 %	3,7
Including starch	%	55	58,0 ± 1,5 %	61
Fibre	%	31	39,9 ± 4,2 %	49
Mineral (Ash)	%	3	3,8 ± 0,4 %	5
Ca	mg/kg	4	5,2 ± 0,4 %	6,5
P	mg/kg	6 000	8 300 ± 700	10 000
Na	mg/kg	4 900	5 900 ± 500	7 000
K	mg/kg	1 500	1 900 ± 300	3 000
Mn	mg/kg	4 500	6 700 ± 1 000	9 000
Vitamin A	UI/kg	50	90 ± 20	130
	UI/kg	4 000	7 200 ± 1 700	11 000
Viable organisms				
Total coliform count	g	—	7 000 ± 7 000	100 000
E Coli	g	—	0	5
SR Anaerobes	g	—	0	0
Salmonella	g	—	Occ 20	100
	g	—	—	0
Mycotoxins				
Aflatoxin	µg/kg	—	< 1	5
Ochratoxin	µg/kg	—	< 12	200
Zearalenone	µg/kg	—	< 50	1 000
Sterigmatocystin	µg/kg	—	< 30	300
Pesticides				
Lindane	µg/kg	—	20 ± 20	100
α HCH	µg/kg	—	Sometimes traces	100
Heptachlor	µg/kg	—	< 1	20
DDT	µg/kg	—	< 1	100
DDE	µg/kg	—	< 1	100
Dieldrin	µg/kg	—	< 1	100
Endosulfan	µg/kg	—	< 1	20
PCB	µg/kg	—	< 1	—
Other O Chl	µg/kg	—	< 1	50
Total O Chl count	µg/kg	—	< 1	100
	µg/kg	—	—	100
Insecticides				
Malathion	unit	—	600 ± 600	5 000
Pyrimiphos methyl	µg/kg	—	100 ± 100	2 500
Chlorpyrifos-methyl	µg/kg	—	150 ± 150	1 500
Dimethoate	µg/kg	—	< 5	1 000
Phosalon	µg/kg	—	< 5	—
Other OPH	µg/kg	—	< 5	—
Total OPH count	µg/kg	—	< 5	5 000
	µg/kg	—	—	5 000
Heavy metals				
Lead	µg/kg	—	400 ± 300	1 500
Mercury	µg/kg	—	50 ± 45	200
Arsenic	µg/kg	—	250 ± 150	1 000
Cadmium	µg/kg	—	70 ± 50	250
Selenium	µg/kg	—	200 ± 100	600
Nitrosamines				
NO3	mg/kg	—	100 ± 50	500
NO2	mg/kg	—	3 ± 2	500
NDMA	µg/kg	—	3 ± 2	10
NDEA	µg/kg	—	1 ± 1	10
NDPA	µg/kg	—	Sometimes traces	10
NOBA	µg/kg	—	Sometimes traces	10
NPI	µg/kg	—	Sometimes traces	10
Total nitroso compound counts	µg/kg	—	Sometimes traces	10
	µg/kg	—	—	10

MALE RAT

WEIGHT EVOLUTION (GRAMS)

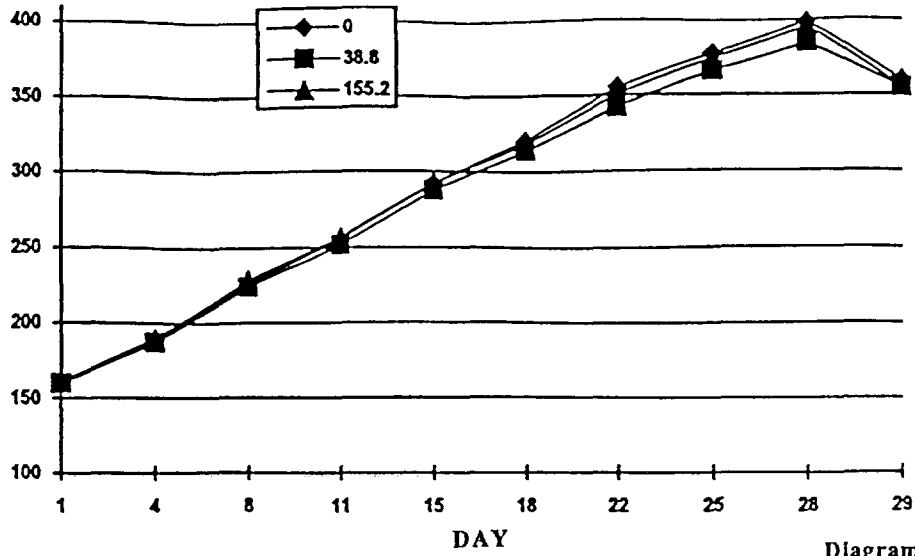


Diagram 1

FOOD INTAKE (g/d/rat)

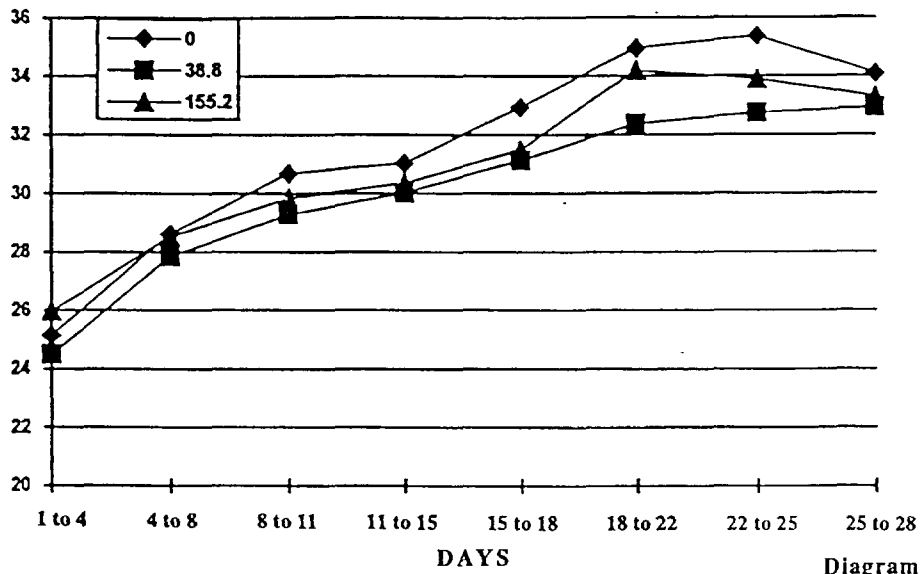


Diagram 2

WATER INTAKE (ml/d/rat)

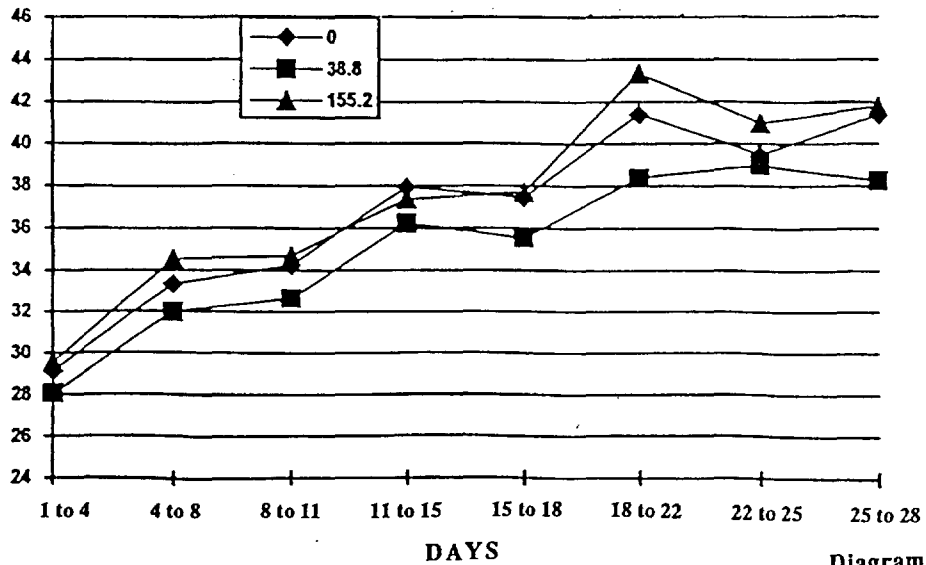


Diagram 3

MALE RAT

NUTRITION EFFICACY COEFFICIENT

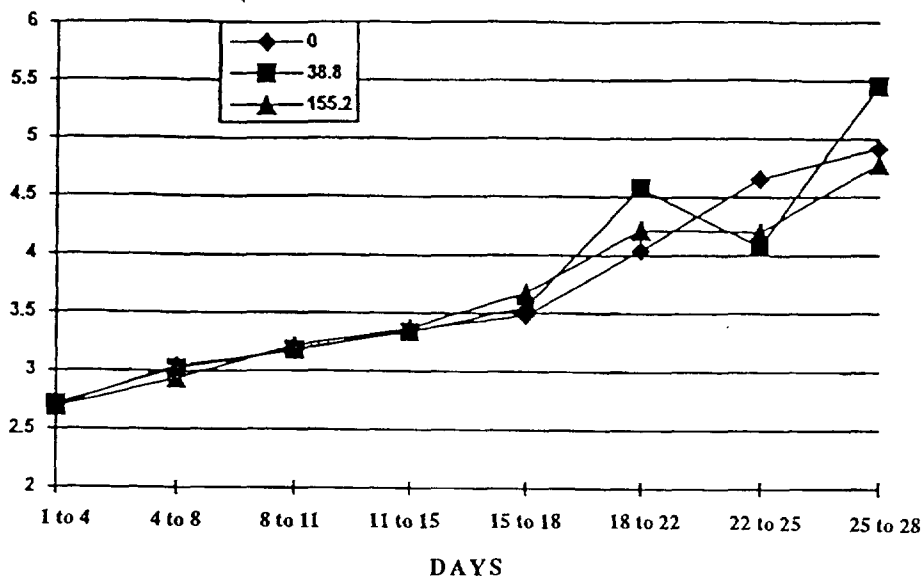


Diagram 4

	1 to 4	4 to 8	8 to 11	11 to 15	15 to 18	18 to 22	22 to 25	25 to 28
0	2.694	3.045	3.174	3.354	3.480	4.042	4.655	4.918
38.8	2.712	3.018	3.183	3.336	3.552	4.577	4.076	5.456
155.2	2.688	2.935	3.220	3.373	3.677	4.222	4.202	4.780

FEMALE RATS

WEIGHT EVOLUTION (GRAMS)

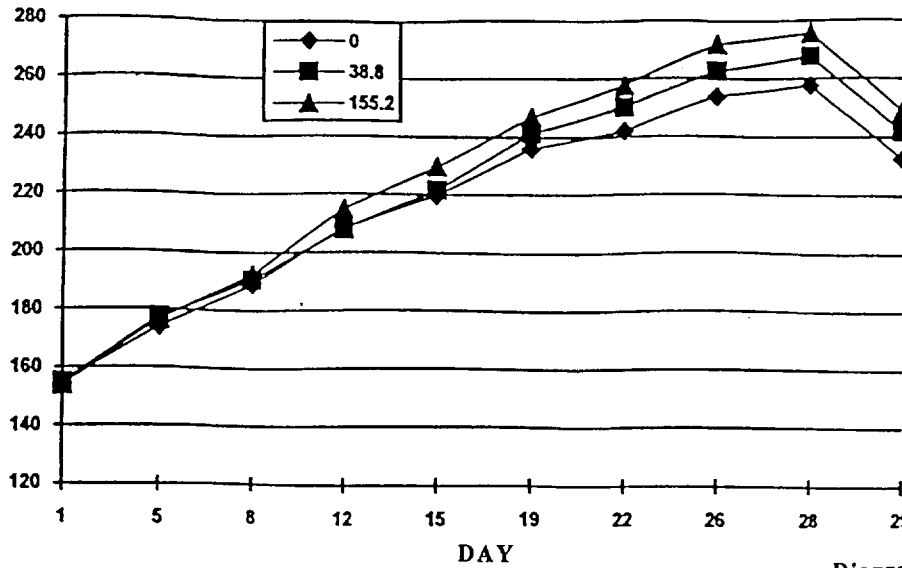


Diagram 5

FOOD INTAKE (g/d/rat)

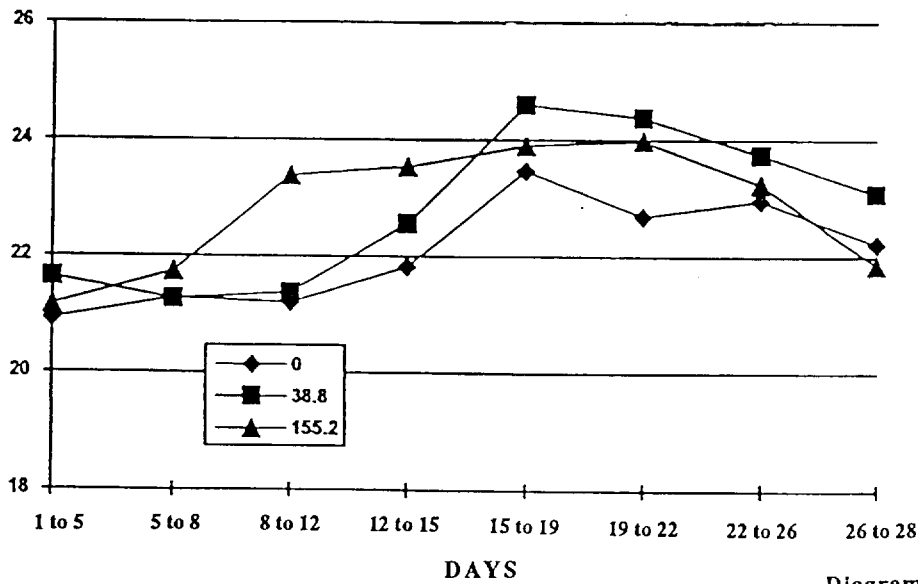


Diagram 6

WATER INTAKE (ml/d/rat)

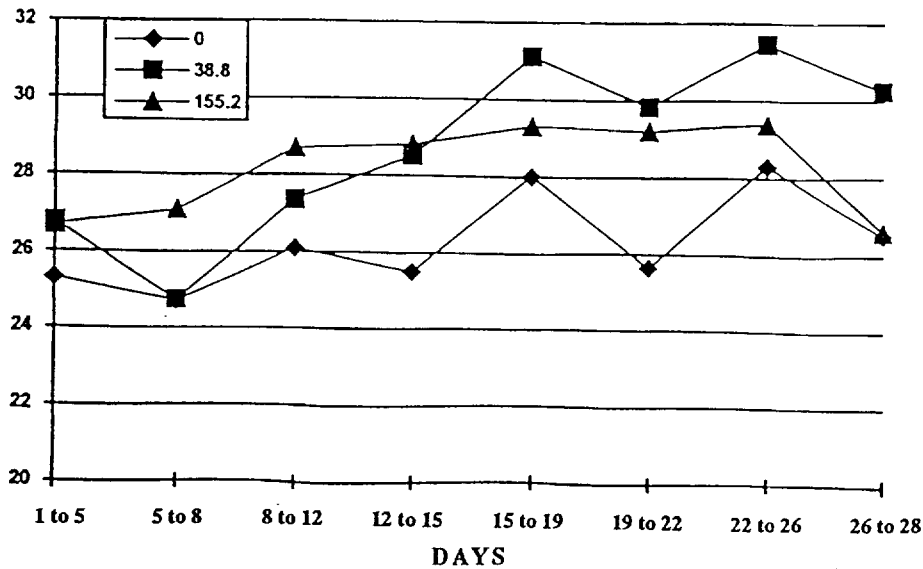


Diagram 7

FEMALE RAT

NUTRITION EFFICACY COEFFICIENT

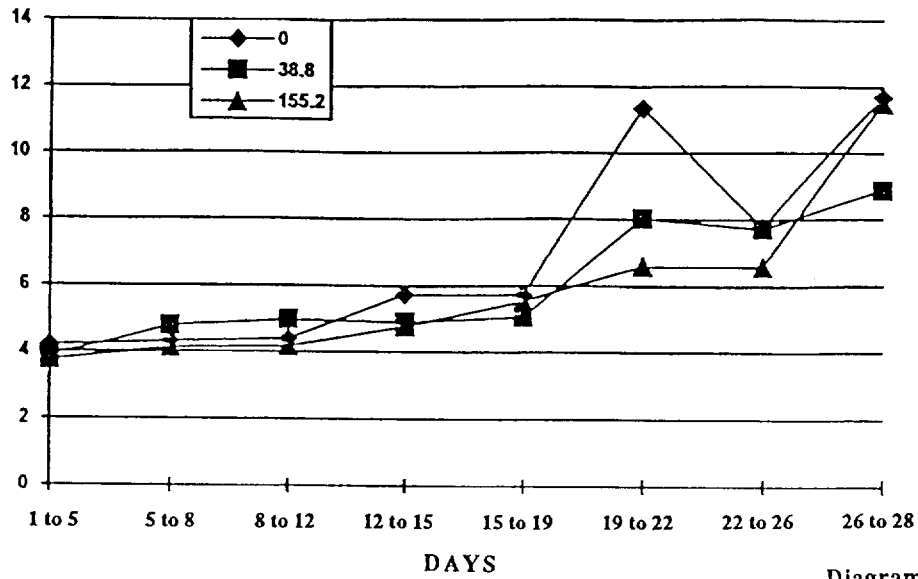


Diagram 8

	1 to 5	5 to 8	8 to 12	12 to 15	15 to 19	19 to 22	22 to 26	26 to 28
0	4.205	4.314	4.394	5.742	5.722	11.340	7.783	11.695
38.8	3.864	4.795	4.972	4.904	5.046	8.037	7.720	8.877
155.2	3.745	4.128	4.175	4.772	5.526	6.600	6.593	11.505

MALE RATS

TABLES 1 to 31

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WEIGHT EVOLUTION

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 1					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	160.6	2.04	6.45	41.6000
ROVOL V : 38.8	10	159.9	2.20	6.97	48.5444
ROVOL V : 155.2	10	160.7	1.75	5.54	30.6778

D 4					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	188.6	2.57	8.13	66.0444
ROVOL V : 38.8	10	187.0	3.13	9.90	98.0000
ROVOL V : 155.2	10	189.7	2.81	8.88	78.9000

D 8					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	226.2	3.74	11.81	139.5111
ROVOL V : 38.8	10	223.9	3.58	11.33	128.3222
ROVOL V : 155.2	10	228.6	3.50	11.07	122.4889

D 11					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	255.2	4.18	13.22	174.8444
ROVOL V : 38.8	10	251.5	4.47	14.12	199.3889
ROVOL V : 155.2	10	256.4	4.24	13.40	179.6000

D 15					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	292.2	5.03	15.91	253.0667
ROVOL V : 38.8	10	287.5	4.84	15.31	234.2778
ROVOL V : 155.2	10	292.4	4.93	15.59	243.1556

D 18					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	320.6	5.47	17.31	299.6000
ROVOL V : 38.8	10	313.8	5.83	18.43	339.5111
ROVOL V : 155.2	10	318.1	5.72	18.08	326.7667

Table 1

**ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WEIGHT EVOLUTION**

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 22					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	355.2	7.10	22.45	503.9556
ROVOL V : 38.8	10	342.1	7.00	22.14	490.3222
ROVOL V : 155.2	10	350.5	7.60	24.04	577.8333

D 25					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	378.0	7.77	24.58	604.2222
ROVOL V : 38.8	10	366.2	7.81	24.68	609.2889
ROVOL V : 155.2	10	374.7	9.10	28.78	828.2333

D 28					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	398.8	8.74	27.65	764.4000
ROVOL V : 38.8	10	384.3	9.13	28.86	832.6778
ROVOL V : 155.2	10	395.6	10.74	33.95	1152.4889

D 29					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	360.1	7.80	24.66	608.3222
ROVOL V : 38.8	10	355.3	8.37	26.47	700.6778
ROVOL V : 155.2	10	356.0	9.95	31.45	989.1111

D 28-D 1					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	238.2	7.54	23.83	567.9556
ROVOL V : 38.8	10	224.4	8.18	25.88	669.6000
ROVOL V : 155.2	10	234.9	10.08	31.86	1015.2111

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WEIGHT EVOLUTION

COMPARED SERIES

SERIES 1 : CONTROLS
 SERIES 2 : ROVOL V : 38.8
 SERIES 3 : ROVOL V : 155.2

VARIABLE	COMPARED VARIANCES (BARTLETT'S TEST)				COMPARED MEANS				
	ddl	Chi2	P	Sig	Test	ddl		P	Sig
D 1	2	0.455	0.7967	NS	AOV	2.27	F= 0.047	.9544	NS
D 4	2	0.336	0.8453	NS	AOV	2.27	F= 0.228	.7979	NS
D 8	2	0.037	0.9814	NS	AOV	2.27	F= 0.425	.6583	NS
D 11	2	0.042	0.9793	NS	AOV	2.27	F= 0.353	.7055	NS
D 15	2	0.013	0.9936	NS	AOV	2.27	F= 0.316	.7319	NS
D 18	2	0.035	0.9827	NS	AOV	2.27	F= 0.367	.6960	NS
D 22	2	0.067	0.9669	NS	AOV	2.27	F= 0.840	.4425	NS
D 25	2	0.286	0.8669	NS	AOV	2.27	F= 0.545	.5862	NS
D 28	2	0.415	0.8128	NS	AOV	2.27	F= 0.633	.5386	NS
D 29	2	0.550	0.7596	NS	AOV	2.27	F= 0.088	.9162	NS
D 28-D1	2	0.792	0.6731	NS	AOV	2.27	F= 0.692	.5094	NS

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WEIGHT EVOLUTION

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 1 to D 4					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	28.0	0.95	3.02	9.1111
ROVOL V : 38.8	10	27.1	1.22	3.84	14.7667
ROVOL V : 155.2	10	29.0	1.54	4.88	23.7778

D 4 to D 8					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	37.6	1.45	4.58	20.9333
ROVOL V : 38.8	10	36.9	1.35	4.28	18.3222
ROVOL V : 155.2	10	38.9	1.23	3.90	15.2111

D 8 to D 11					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	29.0	1.04	3.30	10.8889
ROVOL V : 38.8	10	27.6	1.29	4.09	16.7111
ROVOL V : 155.2	10	27.8	0.93	2.94	8.6222

D 11 to D 15					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	37.0	1.05	3.33	11.1111
ROVOL V : 38.8	10	36.0	0.82	2.58	6.6667
ROVOL V : 155.2	10	36.0	1.13	3.56	12.6667

D 15 to D 18					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	28.4	1.32	4.17	17.3778
ROVOL V : 38.8	10	26.3	1.70	5.38	28.9000
ROVOL V : 155.2	10	25.7	1.33	4.19	17.5667

D 18 to D 22					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	34.6	1.76	5.56	30.9333
ROVOL V : 38.8	10	28.3	1.61	5.10	26.0111
ROVOL V : 155.2	10	32.4	2.28	7.21	52.0444

Table 4

**ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WEIGHT EVOLUTION**

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 22 to D 25					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	22.8	1.42	4.49	20.1778
ROVOL V : 38.8	10	24.1	1.28	4.04	16.3222
ROVOL V : 155.2	10	24.2	1.98	6.25	39.0667

D 25 to D 28					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	20.8	1.34	4.24	17.9556
ROVOL V : 38.8	10	18.1	2.01	6.35	40.3222
ROVOL V : 155.2	10	20.9	2.04	6.44	41.4333

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : FOOD INTAKE (g/d/rat)

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 1 to D 4					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	25.14	0.590	1.320	1.7430
ROVOL V : 38.8	5	24.50	1.222	2.732	7.4650
ROVOL V : 155.2	5	25.98	0.976	2.183	4.7670

D 4 to D 8					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	28.62	0.485	1.085	1.1770
ROVOL V : 38.8	5	27.84	1.257	2.811	7.9030
ROVOL V : 155.2	5	28.54	0.901	2.014	4.0580

D 8 to D 11					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	30.68	0.527	1.178	1.3870
ROVOL V : 38.8	5	29.28	1.254	2.803	7.8570
ROVOL V : 155.2	5	29.84	0.922	2.061	4.2480

D 11 to D 15					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	31.02	0.505	1.130	1.2770
ROVOL V : 38.8	5	30.02	1.231	2.753	7.5770
ROVOL V : 155.2	5	30.36	0.954	2.133	4.5480

D 15 to D 18					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	32.94	0.488	1.092	1.1930
ROVOL V : 38.8	5	31.14	1.438	3.216	10.3430
ROVOL V : 155.2	5	31.50	0.924	2.066	4.2700

D 18 to D 22					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	34.96	0.341	0.764	0.5830
ROVOL V : 38.8	5	32.38	1.393	3.115	9.7020
ROVOL V : 155.2	5	34.20	1.517	3.393	11.5100

Table 6

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : FOOD INTAKE (g/d/rat)

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 22 to D 25					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	35.38	0.284	0.634	0.4020
ROVOL V : 38.8	5	32.74	1.388	3.103	9.6280
ROVOL V : 155.2	5	33.90	1.428	3.193	10.1950

D 25 to D 28					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	34.10	0.321	0.718	0.5150
ROVOL V : 38.8	5	32.92	1.168	2.611	6.8170
ROVOL V : 155.2	5	33.30	1.766	3.948	15.5900

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : FOOD INTAKE (g/d/rat)

COMPARED SERIES

SERIES 1 : CONTROLS
 SERIES 2 : ROVOL V : 38.8
 SERIES 3 : ROVOL V : 155.2

VARIABLE	COMPARED VARIANCES (BARTLETT'S TEST)				COMPARED MEANS				
	ddl	Chi2	P	Sig	Test	ddl		P	Sig
D1 to D4	2	1.758	0.4151	NS	AOV	2.12	F= 0.591	.5689	NS
D4 to D8	2	2.879	0.2371	NS	AOV	2.12	F= 0.210	.8133	NS
D8 to D11	2	2.431	0.2965	NS	AOV	2.12	F= 0.552	.5898	NS
D11 to D15	2	2.542	0.2806	NS	AOV	2.12	F= 0.289	.7539	NS
D15 to D18	2	3.675	0.1592	NS	AOV	2.12	F= 0.861	.4473	NS
D18 to D22	2	6.384	0.0411	S	K-W	2	X2= 2.89	.2363	NS
D22 to D25	2	7.378	0.0250	S	K-W	2	X2= 3.35	.1878	NS
D25 to D28	2	7.553	0.0229	S	K-W	2	X2= 2.16	.3396	NS

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WATER INTAKE (ml/d/rat)

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 1 to D 4					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	29.12	0.967	2.161	4.6720
ROVOL V : 38.8	5	28.04	1.487	3.325	11.0530
ROVOL V : 155.2	5	29.54	1.132	2.530	6.4030

D 4 to D 8					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	33.34	1.360	3.042	9.2530
ROVOL V : 38.8	5	31.98	1.515	3.388	11.4770
ROVOL V : 155.2	5	34.52	0.975	2.181	4.7570

D 8 to D 11					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	34.24	1.357	3.034	9.2030
ROVOL V : 38.8	5	32.64	1.684	3.765	14.1730
ROVOL V : 155.2	5	34.70	0.983	2.199	4.8350

D 11 to D 15					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	37.94	2.076	4.641	21.5430
ROVOL V : 38.8	5	36.22	2.432	5.438	29.5720
ROVOL V : 155.2	5	37.36	0.824	1.843	3.3980

D 15 to D 18					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	37.44	1.915	4.282	18.3380
ROVOL V : 38.8	5	35.52	2.672	5.976	35.7070
ROVOL V : 155.2	5	37.70	1.332	2.978	8.8700

D 18 to D 22					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	41.40	2.293	5.127	26.2900
ROVOL V : 38.8	5	38.38	2.343	5.238	27.4370
ROVOL V : 155.2	5	43.32	1.209	2.703	7.3070

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WATER INTAKE (ml/d/rat)

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 22 to D 25					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	39.48	1.451	3.245	10.5320
ROVOL V : 38.8	5	38.98	2.904	6.494	42.1770
ROVOL V : 155.2	5	41.00	1.447	3.235	10.4650

D 25 to D 28					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	41.36	1.617	3.615	13.0680
ROVOL V : 38.8	5	38.24	3.011	6.733	45.3330
ROVOL V : 155.2	5	41.80	1.702	3.807	14.4900

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WATER INTAKE (ml/d/rat)

COMPARED SERIES

SERIES 1 : CONTROLS
 SERIES 2 : ROVOL V : 38.8
 SERIES 3 : ROVOL V : 155.2

VARIABLE	COMPARED VARIANCES (BARTLETT'S TEST)				COMPARED MEANS				
	ddl	Chi2	P	Sig	Test	ddl		P	Sig
D1 to D4	2	0.697	0.7057	NS	AOV	2.12	F= 0.406	.6752	NS
D4 to D8	2	0.698	0.7055	NS	AOV	2.12	F= 0.951	.4136	NS
D8 to D11	2	0.996	0.6079	NS	AOV	2.12	F= 0.622	.5535	NS
D11 to D15	2	3.670	0.1596	NS	AOV	2.12	F= 0.211	.8130	NS
D15 to D18	2	1.665	0.4349	NS	AOV	2.12	F= 0.338	.7197	NS
D18 to D22	2	1.687	0.4302	NS	AOV	2.12	F= 1.524	.2571	NS
D22 to D25	2	2.511	0.2849	NS	AOV	2.12	F= 0.263	.7732	NS
D25 to D28	2	1.848	0.3969	NS	AOV	2.12	F= 0.775	.4824	NS

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WATER/FOOD RATIO

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 1 to D 4					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	1.160	0.0423	0.0945	0.0089
ROVOL V : 38.8	5	1.145	0.0245	0.0547	0.0030
ROVOL V : 155.2	5	1.139	0.0307	0.0686	0.0047

D 4 to D 8					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	1.165	0.0449	0.1005	0.0101
ROVOL V : 38.8	5	1.149	0.0157	0.0352	0.0012
ROVOL V : 155.2	5	1.212	0.0357	0.0798	0.0064

D 8 to D 11					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	1.117	0.0447	0.1000	0.0100
ROVOL V : 38.8	5	1.113	0.0138	0.0309	0.0010
ROVOL V : 155.2	5	1.167	0.0440	0.0983	0.0097

D 11 to D 15					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	1.223	0.0609	0.1361	0.0185
ROVOL V : 38.8	5	1.202	0.0315	0.0703	0.0049
ROVOL V : 155.2	5	1.233	0.0319	0.0714	0.0051

D 15 to D 18					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	1.138	0.0647	0.1446	0.0209
ROVOL V : 38.8	5	1.135	0.0330	0.0738	0.0054
ROVOL V : 155.2	5	1.200	0.0469	0.1049	0.0110

D 18 to D 22					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	1.185	0.0668	0.1493	0.0223
ROVOL V : 38.8	5	1.182	0.0236	0.0528	0.0028
ROVOL V : 155.2	5	1.275	0.0546	0.1220	0.0149

**ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WATER/FOOD RATIO**

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 22 to D 25					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	1.117	0.0463	0.1036	0.0107
ROVOL V : 38.8	5	1.185	0.0450	0.1005	0.0101
ROVOL V : 155.2	5	1.214	0.0460	0.1027	0.0106

D 25 to D 28					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	1.214	0.0505	0.1128	0.0127
ROVOL V : 38.8	5	1.159	0.0674	0.1508	0.0227
ROVOL V : 155.2	5	1.260	0.0325	0.0727	0.0053

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WATER/FOOD RATIO

COMPARED SERIES

SERIES 1 : CONTROLS

SERIES 2 : ROVOL V : 38.8

SERIES 3 : ROVOL V : 155.2

VARIABLE	COMPARED VARIANCES (BARTLETT'S TEST)				COMPARED MEANS				
	ddl	Chi2	P	Sig	Test	ddl		P	Sig
D1 to D4	2	1.091	0.5795	NS	AOV	2.12	F= 0.111	.8957	NS
D4 to D8	2	3.411	0.1817	NS	AOV	2.12	F= 0.916	.4264	NS
D8 to D11	2	4.527	0.1040	NS	AOV	2.12	F= 0.646	.5413	NS
D11 to D15	2	2.212	0.3309	NS	AOV	2.12	F= 0.137	.8734	NS
D15 to D18	2	1.556	0.4592	NS	AOV	2.12	F= 0.534	.5994	NS
D18 to D22	2	3.377	0.1848	NS	AOV	2.12	F= 1.042	.3826	NS
D22 to D25	2	0.003	0.9983	NS	AOV	2.12	F= 1.188	.3383	NS
D25 to D28	2	1.779	0.4108	NS	AOV	2.12	F= 0.940	.4175	NS

**ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : HEMATOLOGY**

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

ERYTHROCYTES					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	8.38	0.139	0.440	0.1940
ROVOL V : 38.8	10	8.31	0.177	0.559	0.3127
ROVOL V : 155.2	10	8.21	0.135	0.426	0.1816

HEMOGLOBIN					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	10.8	0.16	0.51	0.2573
ROVOL V : 38.8	10	10.9	0.21	0.66	0.4360
ROVOL V : 155.2	10	10.8	0.13	0.43	0.1822

HEMATOCRIT					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	0.46	0.005	0.014	0.0002
ROVOL V : 38.8	10	0.47	0.006	0.020	0.0004
ROVOL V : 155.2	10	0.47	0.005	0.015	0.0002

V.G.M.					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	55.14	0.822	2.600	6.7601
ROVOL V : 38.8	10	56.05	0.712	2.253	5.0739
ROVOL V : 155.2	10	56.85	0.813	2.572	6.6146

C.G.M.					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	23.38	0.188	0.596	0.3552
ROVOL V : 38.8	10	23.34	0.233	0.738	0.5441
ROVOL V : 155.2	10	23.18	0.169	0.534	0.2856

LEUCOCYTES					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	11.314	0.8481	2.6819	7.1926
ROVOL V : 38.8	10	12.711	0.9982	3.1566	0.9644
ROVOL V : 155.2	10	11.187	0.6511	2.0589	4.2389

**ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : HEMATOLOGY**

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

NEUTROPH.					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	8.6	0.75	2.37	5.6000
ROVOL V : 38.8	10	10.8	1.88	5.94	35.2889
ROVOL V : 155.2	10	12.7	2.12	6.70	44.9000

EOSINOPH.					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	0.5	0.27	0.85	0.7222
ROVOL V : 38.8	10	0.5	0.22	0.71	0.5000
ROVOL V : 155.2	10	0.9	0.31	0.99	0.9889

BASOPH.					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	0.0	0.00	0.00	0.0000
ROVOL V : 38.8	10	0.0	0.00	0.00	0.0000
ROVOL V : 155.2	10	0.0	0.00	0.00	0.0000

LYMPHOCYTES					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	90.7	0.93	2.95	8.6778
ROVOL V : 38.8	10	87.8	1.92	6.07	36.8444
ROVOL V : 155.2	10	85.6	2.54	8.03	64.4889

MONOCYTES					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	0.7	0.21	0.67	0.4556
ROVOL V : 38.8	10	0.9	0.23	0.74	0.5444
ROVOL V : 155.2	10	0.8	0.25	0.79	0.6222

THROMBOCYTES					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	691	37.3	117.8	13882.2667
ROVOL V : 38.8	10	671	21.0	66.3	4398.2222
ROVOL V : 155.2	10	643	31.6	100.1	10012.2667

Table 16

**ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : HEMATOLOGY**

COMPARED SERIES

SERIES 1 : CONTROLS

SERIES 2 : ROVOL V : 38.8

SERIES 3 : ROVOL V : 155.2

VARIABLE	COMPARED VARIANCES (BARTLETT'S TEST)				COMPARED MEANS				
	ddl	Chi2	P	Sig	Test	ddl		P	Sig
Erythrocytes	2	0.788	0.6742	NS	AOV	2.27	F= 0.303	.7413	NS
Hemoglobin	2	1.677	0.4324	NS	AOV	2.27	F= 0.059	.9424	NS
Hematocrit	2	1.170	0.5570	NS	AOV	2.27	F= 0.249	.7810	NS
V.G.M.	2	0.212	0.8995	NS	AOV	2.27	F= 1.190	.3196	NS
C.G.M.	2	0.944	0.6239	NS	AOV	2.27	F= 0.296	.7459	NS
Leucocytes	2	1.521	0.4673	NS	AOV	2.27	F= 1.003	.3802	NS
Neutroph.	2	8.311	0.0157	S	K-W	2	X2= 1.97	.3740	NS
Eosinoph.	2	0.981	0.6123	NS	AOV	2.27	F= 0.724	.4942	NS
Lymphocytes	2	7.478	0.0238	S	K-W	2	X2= 2.06	.3570	NS
Monocytes	2	0.208	0.9013	NS	AOV	2.27	F= 0.185	.8322	NS
Thrombocytes	2	2.713	0.2575	NS	AOV	2.27	F= 0.637	.5367	NS

**ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : BIOCHEMICAL DATA**

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

CHOLESTEROL					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	2.25	0.100	0.316	0.0998
ROVOL V : 38.8	10	2.59	0.140	0.442	0.1954
ROVOL V : 155.2	10	2.61	0.134	0.423	0.1785

TRIGLYCERIDES					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	0.88	0.093	0.296	0.0874
ROVOL V : 38.8	10	0.72	0.072	0.229	0.0522
ROVOL V : 155.2	10	0.83	0.081	0.256	0.0654

PROTEINS					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	67.6	0.86	2.71	7.3538
ROVOL V : 38.8	10	68.1	1.22	3.85	114.7934
ROVOL V : 155.2	10	69.5	0.71	2.25	5.0668

CALCIUM					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	2.80	0.037	0.116	0.0134
ROVOL V : 38.8	10	2.77	0.046	0.144	0.0207
ROVOL V : 155.2	10	2.89	0.039	0.122	0.0149

OSMOLARITY					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	1411	99.1	313.4	98248.8889
ROVOL V : 38.8	10	1426	77.7	245.9	60443.3333
ROVOL V : 155.2	10	1428	79.9	252.7	63840.0000

URINARY CREATININ					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	11.2	0.92	2.92	8.5343
ROVOL V : 38.8	10	10.8	0.79	2.51	6.2916
ROVOL V : 155.2	10	10.4	0.83	2.62	6.8788

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : BIOCHEMICAL DATA

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

SERIC CREAT.					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	71.0	1.88	5.93	35.1912
ROVOL V : 38.8	10	71.9	2.61	8.24	67.9355
ROVOL V : 155.2	10	71.9	1.41	4.45	19.8010

CREATININ CLEARANCE					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	0.933	0.0685	0.2166	0.0469
ROVOL V : 38.8	10	1.267	0.2322	0.7344	0.5393
ROVOL V : 155.2	10	1.058	0.1845	0.5834	0.3403

UREA					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	6.44	0.282	0.892	0.7965
ROVOL V : 38.8	10	6.26	0.372	1.175	1.3815
ROVOL V : 155.2	10	6.59	0.244	0.772	0.5960

BILIRUBIN					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	5.19	0.252	0.796	0.6343
ROVOL V : 38.8	10	4.96	0.148	0.470	0.2204
ROVOL V : 155.2	10	4.74	0.211	0.667	0.4449

SGOT					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	61.2	2.34	7.40	54.8050
ROVOL V : 38.8	10	62.5	2.25	7.12	50.6699
ROVOL V : 155.2	10	74.1	10.13	32.03	1025.9929

SGPT					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	20.4	2.08	6.56	43.0693
ROVOL V : 38.8	10	26.7	2.95	9.33	86.9557
ROVOL V : 155.2	10	31.0	3.71	11.72	137.2982

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : BIOCHEMICAL DATA

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

ALIMENTARY PHOSPHATE					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	189	5.1	16.3	264.1778
ROVOL V : 38.8	10	168	9.2	29.1	849.6556
ROVOL V : 155.2	10	170	11.5	36.3	1316.9333

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : BIOCHEMICAL DATA

COMPARED SERIES

SERIES 1 : CONTROLS

SERIES 2 : ROVOL V : 38.8

SERIES 3 : ROVOL V : 155.2

VARIABLE	COMPARED VARIANCES (BARTLETT'S TEST)				COMPARED MEANS				
	ddl	Chi2	P	Sig	Test	ddl		P	Sig
Cholester.	2	1.056	0.5897	NS	AOV	2.27	F= 2.600	.0928	NS
Triglycer.	2	0.575	0.7503	NS	AOV	2.27	F= 0.953	.3981	NS
Proteins	2	2.601	0.2723	NS	AOV	2.27	F= 1.132	.3373	NS
Calcium	2	0.451	0.7982	NS	AOV	2.27	F= 2.201	.1301	NS
Osmolarity	2	0.633	0.7288	NS	AOV	2.27	F= 0.012	.9884	NS
Uri. Crea	2	0.214	0.8983	NS	AOV	2.27	F= 0.233	.7937	NS
Seric Crea	2	3.207	0.2012	NS	AOV	2.27	F= 0.062	.9398	NS
Crea Clearance	2	10.548	0.0051	S	K-W	2	X2= 0.85	.6524	NS
Urea	2	1.603	0.4486	NS	AOV	2.27	F= 0.293	.7482	NS
Bilirubin	2	2.296	0.3173	NS	AOV	2.27	F= 1.169	.3259	NS
SGOT	2	25.176	0.0000	S	K-W	2	X2= 0.27	.8730	NS
SGPT	2	2.737	0.2544	NS	AOV	2.27	F= 3.185	.0573	NS
Al. Phosph.	2	5.039	0.0805	NS	AOV	2.27	F= 1.644	.2119	NS

**ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : URINARY EXCRETION**

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

EXCR VOL. 4 H					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	11.5	0.48	1.51	2.2778
ROVOL V : 38.8	10	9.8	0.65	2.04	4.1778
ROVOL V : 155.2	10	9.8	0.83	2.62	6.8444

% EXCR VOL. 4 H					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	96.09	3.175	10.040	100.7921
ROVOL V : 38.8	10	84.83	4.821	15.245	232.4023
ROVOL V : 155.2	10	81.65	6.044	19.114	365.3516

EXCR VOL. 7 H					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	13.9	0.44	1.39	1.9396
ROVOL V : 38.8	10	11.6	0.77	2.45	5.9951
ROVOL V : 155.2	10	12.2	0.79	2.50	6.2471

% EXCR VOL. 7 H					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	116.57	3.341	10.566	111.6379
ROVOL V : 38.8	10	100.45	5.385	17.030	290.0250
ROVOL V : 155.2	10	103.11	5.554	17.562	308.4321

VOL. 7-24 H					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	6.2	0.62	1.97	3.8884
ROVOL V : 38.8	10	7.1	0.71	2.23	4.9707
ROVOL V : 155.2	10	7.8	0.82	2.61	6.8046

EXCR VOL. 24 H					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	20.2	0.77	2.45	5.9893
ROVOL V : 38.8	10	18.7	0.95	3.00	9.0067
ROVOL V : 155.2	10	20.1	1.40	4.44	19.6716

**ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : URINARY EXCRETION**

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

pH					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	7.10	0.145	0.459	0.2111
ROVOL V : 38.8	10	6.70	0.133	0.422	0.1778
ROVOL V : 155.2	10	6.40	0.145	0.459	0.2111

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : URINARY EXCRETION

COMPARED SERIES

SERIES 1 : CONTROLS

SERIES 2 : ROVOL V : 38.8

SERIES 3 : ROVOL V : 155.2

VARIABLE	COMPARED VARIANCES (BARTLETT'S TEST)				COMPARED MEANS				
	ddl	Chi2	P	Sig	Test	ddl		P	Sig
Exc. Vol. 4h	2	2.496	0.2871	NS	AOV	2.27	F= 2.173	.1333	NS
% Exc. 4h	2	3.334	0.1888	NS	AOV	2.27	F= 2.472	.1033	NS
Exc. Vol. 7h	2	3.212	0.2007	NS	AOV	2.27	F= 2.996	.0668	NS
% Exc. 7h	2	2.433	0.2963	NS	AOV	2.27	F= 3.155	.0587	NS
Vol. 7-24h	2	0.678	0.7125	NS	AOV	2.27	F= 1.243	.3045	NS
Exc. Vol. 24h	2	3.212	0.2007	NS	AOV	2.27	F= 0.576	.5691	NS
pH	2	0.083	0.9595	NS	AOV	2.27	F= 6.167	.0062	NS

MALE RAT

STUDENT-NEWMAN-KEULS

Classification test with significance level p 0.05

pH variable per SERIES variable:

Difference between 2 means is significant if

$$\text{Mean (J)} - \text{Mean (I)} \leq 0.3162 \times \text{RANGE} \times \text{SQRT} (1/N(I)+1/N(J))$$

With the following range values:

Step	2	3
Range	2.90	3.50

(*) Indicates significant differences.

MEAN	SERIES	ROVOL V 155.2	ROVOL V 38.8	CONTROLS
6.4	ROVOL V 155.2			
6.7	ROVOL V 38.8			
7.1	Controls	*		

Subset 1

SERIES	ROVOL V 155.2	ROVOL V 38.8
MEAN	6.4	6.7

Subset 2

SERIES	ROVOL V 38.8	CONTROLS
MEAN	6.7	7.1

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : ORGAN WEIGHT

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

KIDNEYS					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	2.915	0.0615	0.1945	0.0378
ROVOL V : 38.8	10	2.755	0.1042	0.3297	0.1087
ROVOL V : 155.2	10	2.769	0.0707	0.2236	0.0500

TESTICLES					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	3.562	0.0615	0.1943	0.0378
ROVOL V : 38.8	10	3.725	0.1150	0.3637	0.1323
ROVOL V : 155.2	10	3.612	0.0675	0.2133	0.0455

ADRENALS					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	69.00	2.534	8.014	64.2222
ROVOL V : 38.8	10	71.00	2.733	8.641	74.6667
ROVOL V : 155.2	10	75.50	3.667	11.597	134.5000

LIVER					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	11.67	0.363	1.148	1.3177
ROVOL V : 38.8	10	11.33	0.429	1.358	1.8444
ROVOL V : 155.2	10	12.77	0.505	1.597	2.5508

HEART					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	1.172	0.0368	0.1165	0.0136
ROVOL V : 38.8	10	1.100	0.0362	0.1145	0.0131
ROVOL V : 155.2	10	1.233	0.0305	0.0963	0.0093

THYMUS					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	694.4	24.51	77.50	6006.7111
ROVOL V : 38.8	10	758.8	56.63	179.09	32073.2889
ROVOL V : 155.2	10	795.3	64.21	203.04	41225.7889

**ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : ORGAN WEIGHT**

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

SPLEEN					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	733.2	33.00	104.36	10891.7333
ROVOL V : 38.8	10	768.6	54.63	172.74	29840.0444
ROVOL V : 155.2	10	855.9	51.22	161.98	26238.1000

BRAIN					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	1.462	0.0185	0.0586	0.0034
ROVOL V : 38.8	10	1.462	0.0234	0.0741	0.0055
ROVOL V : 155.2	10	1.434	0.0218	0.0691	0.0048

MALE RAT

COVARIANCE ANALYSIS

COMPARISON OF THE THREE SERIES

KIDNEYS, PER SERIES, IN FUNCTION OF BODY WEIGHT

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	0.687	1	0.687	16.504	0.0000
SERIES	0.109	2	0.055	1.311	0.287
Residual	1.082	26	0.042		
Total	1.927	29	0.066		

TESTICLES, PER SERIES, IN FUNCTION OF BODY WEIGHT

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	0.590	1	0.590	11.354	0.002
SERIES	0.180	2	0.090	1.733	0.197
Residual	1.351	26	0.052		
Total	2.079	29	0.072		

ADRENALS, PER SERIES, IN FUNCTION OF BODY WEIGHT

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	431.955	1	431.955	5.536	0.026
SERIES	255.556	2	127.778	1.638	0.214
Residual	2028.545	26	78.021		
Total	2682.167	29	92.489		

LIVER, PER SERIES, IN FUNCTION OF BODY WEIGHT

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	32.548	1	32.548	44.850	0.000
SERIES	12.009	2	6.004	8.274	0.002
Residual	18.868	26	0.726		
Total	62.732	29	2.163		

HEART, PER SERIES, IN FUNCTION OF BODY WEIGHT

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	0.121	1	0.121	15.591	0.001
SERIES	0.087	2	0.043	5.576	0.010
Residual	0.202	26	0.008		
Total	0.413	29	0.014		

MALE RAT

COVARIANCE ANALYSIS

COMPARISON OF THE THREE SERIES

THYMUS, PER SERIES, IN FUNCTION OF BODY WEIGHT

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	76733.655	1	76733.655	3.132	0.089
SERIES	61333.160	2	30666.580	1.252	0.303
Residual	637018.445	26	24500.709		
Total	765953.500	29	26412.190		

SPLEEN, PER SERIES, IN FUNCTION OF BODY WEIGHT

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	230663.010	1	230663.010	16.119	0.000
SERIES	94590.416	2	47295.208	3.305	0.053
Residual	372065.890	26	14310.227		
Total	682494.700	29	23534.300		

BRAIN, PER SERIES, IN FUNCTION OF BODY WEIGHT

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	0.004	1	0.004	0.878	0.357
SERIES	0.005	2	0.002	0.540	0.589
Residual	0.119	26	0.005		
Total	0.128	29	0.004		

MALE RAT

COVARIANCE ANALYSIS

LIVER, PER SERIES, IN FUNCTION OF BODY WEIGHT

COMPARISON OF THE TWO SERIES: CONTROLS
ROVOL V 38.8 mg/kg P.O.

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	13.799	1	13.799	16.001	0.001
SERIES	0.159	1	0.159	0.184	0.673
Residual	14.660	17	0.862		
Total	29.048	19	1.529		

COMPARISON OF THE TWO SERIES: CONTROLS
ROVOL V 155.2 mg/kg P.O.

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	26.713	1	26.713	56.043	0.000
SERIES	8.064	1	8.064	16.917	0.001
Residual	8.103	17	0.477		
Total	40.833	19	2.149		

COMPARISON OF THE TWO SERIES: ROVOL V 38.8 mg/kg P.O.
ROVOL V 155.2 mg/kg P.O.

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	25.117	1	25.117	29.571	0.000
SERIES	9.962	1	9.962	11.729	0.003
Residual	14.439	17	0.849		
Total	49.926	19	2.628		

MALE RAT

COVARIANCE ANALYSIS

HEART, PER SERIES, IN FUNCTION OF BODY WEIGHT

COMPARISON OF THE TWO SERIES: CONTROLS
ROVOL V 38.8 mg/kg P.O.

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	0.082	1	0.082	8.875	0.008
SERIES	0.018	1	0.018	1.902	0.186
Residual	0.158	17	0.009		
Total	0.266	19	0.014		

COMPARISON OF THE TWO SERIES: CONTROLS
ROVOL V 155.2 mg/kg P.O.

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	0.072	1	0.072	9.177	0.008
SERIES	0.024	1	0.024	3.109	0.096
Residual	0.133	17	0.008		
Total	0.224	19	0.012		

COMPARISON OF THE TWO SERIES: ROVOL V 38.8 mg/kg P.O.
ROVOL V 155.2 mg/kg P.O.

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	0.089	1	0.089	13.514	0.002
SERIES	0.087	1	0.087	13.109	0.002
Residual	0.112	17	0.007		
Total	0.290	19	0.015		

FEMALE RATS

TABLES 32 to 67

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WEIGHT EVOLUTION

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 1					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	154.3	1.67	5.29	28.0111
ROVOL V : 38.8	10	155.0	2.33	7.38	54.4444
ROVOL V : 155.2	10	154.1	1.75	5.53	30.5444

D 5					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	172.2	2.02	6.39	40.8444
ROVOL V : 38.8	10	177.4	2.25	7.12	50.7111
ROVOL V : 155.2	10	176.7	2.09	6.60	43.5667

D 8					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	189.0	2.24	7.07	50.0000
ROVOL V : 38.8	10	190.7	2.84	8.97	80.4556
ROVOL V : 155.2	10	192.5	2.19	6.92	47.8333

D 12					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	208.3	2.94	9.29	86.2333
ROVOL V : 38.8	10	207.9	3.57	11.30	127.6556
ROVOL V : 155.2	10	214.9	3.52	11.13	123.8778

D 15					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	219.7	3.23	10.20	104.0111
ROVOL V : 38.8	10	221.7	3.15	9.97	99.3444
ROVOL V : 155.2	10	229.7	3.47	10.98	120.4556

D 19					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	236.1	3.89	12.31	151.6556
ROVOL V : 38.8	10	241.2	4.49	14.20	201.5111
ROVOL V : 155.2	10	247.0	3.27	10.34	106.8889

**ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WEIGHT EVOLUTION**

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 22					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	242.1	4.81	15.21	231.2111
ROVOL V : 38.8	10	250.3	5.80	18.35	336.6778
ROVOL V : 155.2	10	257.9	5.07	16.04	257.2111

D 26					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	253.9	4.95	15.66	245.2111
ROVOL V : 38.8	10	262.6	6.96	22.01	484.4889
ROVOL V : 155.2	10	272.0	5.74	18.15	329.3333

D 28					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	257.7	4.51	14.27	203.5667
ROVOL V : 38.8	10	267.8	5.73	18.12	328.1778
ROVOL V : 155.2	10	275.8	5.50	17.40	302.6222

D 29					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	232.8	3.62	11.45	131.0667
ROVOL V : 38.8	10	241.9	5.50	17.39	302.3222
ROVOL V : 155.2	10	249.1	4.68	14.81	219.2111

D 28-D 1					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	103.4	3.08	9.74	94.9333
ROVOL V : 38.8	10	112.8	4.79	15.13	229.0667
ROVOL V : 155.2	10	121.7	4.71	14.90	222.0111

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WEIGHT EVOLUTION

COMPARED SERIES

SERIES 1 : CONTROLS
 SERIES 2 : ROVOL V : 38.8
 SERIES 3 : ROVOL V : 155.2

VARIABLE	COMPARED VARIANCES (BARTLETT'S TEST)				COMPARED MEANS				
	ddl	Chi2	P	Sig	Test	ddl		P	Sig
D 1	2	1.178	0.5549	NS	AOV	2.27	F= 0.059	.9426	NS
D 5	2	0.107	0.9478	NS	AOV	2.27	F= 0.628	.5413	NS
D 8	2	0.746	0.6888	NS	AOV	2.27	F= 0.515	.6031	NS
D 12	2	0.391	0.8226	NS	AOV	2.27	F= 1.373	.2706	NS
D 15	2	0.088	0.9569	NS	AOV	2.27	F= 2.594	.0932	NS
D 19	2	0.849	0.6542	NS	AOV	2.27	F= 1.940	.1633	NS
D 22	2	0.329	0.8485	NS	AOV	2.27	F= 2.270	.1226	NS
D 26	2	1.005	0.6049	NS	AOV	2.27	F= 2.321	.1174	NS
D 28	2	0.533	0.7661	NS	AOV	2.27	F= 2.958	.0689	NS
D 29	2	1.456	0.4828	NS	AOV	2.27	F= 3.067	.0630	NS
D 28-D1	2	1.905	0.3857	NS	AOV	2.27	F= 4.601	.0191	S

FEMALE RAT

STUDENT-NEWMAN-KEULS

Classification test with significance level $p = 0.05$

J 28 - J 1 WEIGHT EVOLUTION Variable per SERIES Variable

Difference between 2 means is significant if

$$\text{Mean (J)} - \text{Mean (I)} \leq 9.5395 \times \text{RANGE} \times \text{SQRT} (1/N(I)+1/N(J))$$

With the following range values:

Step	2	3
Range	2.90	3.50

(*) Indicates significant differences.

MEAN	SERIES	ROVOL V 155.2	ROVOL V 38.8	CONTROLS
103.4	Controls			
112.8	ROVOL V 38.8			
121.7	ROVOL V 155.2	*		

Subset 1

SERIES	Controls	ROVOL V 38.8
MEAN	103.4	112.8

Subset 2

SERIES	ROVOL V 38.8	ROVOL V 155.2
MEAN	112.8	121.7

**ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WEIGHT EVOLUTION**

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 1 to D 5					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	19.9	0.77	2.42	5.8778
ROVOL V : 38.8	10	22.4	1.17	3.69	13.6000
ROVOL V : 155.2	10	22.6	1.18	3.72	13.8222

D 5 to D 8					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	14.8	0.94	2.97	8.8444
ROVOL V : 38.8	10	13.3	1.36	4.30	18.4556
ROVOL V : 155.2	10	15.8	0.65	2.04	4.1778

D 8 to D 12					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	19.3	0.92	2.91	8.4556
ROVOL V : 38.8	10	17.2	1.56	4.94	24.4000
ROVOL V : 155.2	10	22.4	2.32	7.34	53.8222

D 12 to D 15					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	11.4	1.13	3.57	12.7111
ROVOL V : 38.8	10	13.8	1.47	4.66	21.7333
ROVOL V : 155.2	10	14.8	1.12	3.55	12.6222

D 15 to D 19					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	16.4	1.13	3.57	12.7111
ROVOL V : 38.8	10	19.5	1.96	6.20	38.5000
ROVOL V : 155.2	10	17.3	2.76	8.73	76.2333

D 19 to D 22					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	6.0	1.60	5.06	25.5556
ROVOL V : 38.8	10	9.1	2.62	8.29	68.7667
ROVOL V : 155.2	10	10.9	2.98	9.43	88.9889

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WEIGHT EVOLUTION

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 22 to D 26					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	11.8	0.65	2.04	4.1778
ROVOL V : 38.8	10	12.3	2.44	7.70	59.3444
ROVOL V : 155.2	10	14.1	2.60	8.21	67.4333

D 26 to D 28					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	3.8	2.38	7.52	56.6222
ROVOL V : 38.8	10	5.2	2.15	6.80	46.1778
ROVOL V : 155.2	10	3.8	1.77	5.59	31.2889

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : FOOD INTAKE (g/d/rat)

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 1 to D 5					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	20.92	0.377	0.844	0.7120
ROVOL V : 38.8	5	21.64	0.578	1.293	1.6730
ROVOL V : 155.2	5	21.16	0.363	0.811	0.6580

D 5 to D 8					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	21.28	0.473	1.057	1.1170
ROVOL V : 38.8	5	21.26	0.635	1.421	2.0180
ROVOL V : 155.2	5	21.74	0.425	0.950	0.9030

D 8 to D 12					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	21.20	0.773	1.728	2.9850
ROVOL V : 38.8	5	21.38	0.667	1.492	2.2270
ROVOL V : 155.2	5	23.38	0.570	1.276	1.6270

D 12 to D 15					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	21.82	0.541	1.209	1.4620
ROVOL V : 38.8	5	22.56	0.577	1.290	1.6630
ROVOL V : 155.2	5	23.54	0.661	1.477	2.1830

D 15 to D 19					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	23.46	0.606	1.356	1.8380
ROVOL V : 38.8	5	24.60	0.695	1.554	2.4150
ROVOL V : 155.2	5	23.90	0.589	1.317	1.7350

D 19 to D 22					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	22.68	0.684	1.530	2.3420
ROVOL V : 38.8	5	24.38	1.198	2.678	7.1720
ROVOL V : 155.2	5	23.98	0.848	1.895	3.5920

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : FOOD INTAKE (g/d/rat)

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 22 to D 26					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	22.96	0.567	1.268	1.6080
ROVOL V : 38.8	5	23.74	0.767	1.716	2.9430
ROVOL V : 155.2	5	23.24	1.712	3.827	14.6480

D 26 to D 28					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	22.22	0.595	1.331	1.7720
ROVOL V : 38.8	5	23.08	0.565	1.264	1.5970
ROVOL V : 155.2	5	21.86	1.044	2.334	5.4480

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : FOOD INTAKE (g/d/rat)

COMPARED SERIES

SERIES 1 : CONTROLS

SERIES 2 : ROVOL V : 38.8

SERIES 3 : ROVOL V : 155.2

VARIABLE	COMPARED VARIANCES (BARTLETT'S TEST)				COMPARED MEANS				
	ddl	Chi2	P	Sig	Test	ddl		P	Sig
D1 to D5	2	1.031	0.5973	NS	AOV	2.12	F= 0.663	.5333	NS
D5 to D8	2	0.650	0.7224	NS	AOV	2.12	F= 0.274	.7653	NS
D8 to D12	2	0.328	0.8488	NS	AOV	2.12	F= 3.212	.0764	NS
D12 to D15	2	0.154	0.9260	NS	AOV	2.12	F= 2.104	.1648	NS
D15 to D19	2	0.115	0.9439	NS	AOV	2.12	F= 0.828	.4604	NS
D19 to D22	2	1.165	0.5586	NS	AOV	2.12	F= 0.904	.4308	NS
D22 to D26	2	4.788	0.0913	NS	AOV	2.12	F= 0.122	.8863	NS
D26 to D28	2	1.795	0.4075	NS	AOV	2.12	F= 0.669	.5305	NS

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WATER INTAKE (ml/d/rat)

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 1 to D 5					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	25.32	1.294	2.893	8.3720
ROVOL V : 38.8	5	26.76	0.584	1.305	1.7030
ROVOL V : 155.2	5	26.68	1.018	2.275	5.1770

D 5 to D 8					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	24.70	0.924	2.065	4.2650
ROVOL V : 38.8	5	24.74	0.671	1.501	2.2530
ROVOL V : 155.2	5	27.10	0.717	1.603	2.5700

D 8 to D 12					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	26.10	1.371	3.065	9.3950
ROVOL V : 38.8	5	27.36	0.586	1.311	1.7180
ROVOL V : 155.2	5	28.70	1.966	4.396	19.3250

D 12 to D 15					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	25.50	1.516	3.390	11.4950
ROVOL V : 38.8	5	28.52	0.676	1.512	2.2870
ROVOL V : 155.2	5	28.82	1.532	3.426	11.7370

D 15 to D 19					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	28.02	1.145	2.561	6.5570
ROVOL V : 38.8	5	31.12	1.037	2.319	5.3770
ROVOL V : 155.2	5	29.32	1.544	3.454	11.9270

D 19 to D 22					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	25.64	0.894	1.998	3.9930
ROVOL V : 38.8	5	29.84	0.967	2.162	4.6730
ROVOL V : 155.2	5	29.20	1.844	4.123	17.0000

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WATER INTAKE (ml/d/rat)

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 22 to D 26					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	28.32	2.165	4.840	23.4270
ROVOL V : 38.8	5	31.46	0.870	1.946	3.7880
ROVOL V : 155.2	5	29.40	3.060	6.841	46.8050

D 26 to D 28					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	26.52	0.521	1.165	1.3570
ROVOL V : 38.8	5	30.26	1.165	2.605	6.7880
ROVOL V : 155.2	5	26.62	1.942	4.342	18.8520

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WATER INTAKE (ml/d/rat)

COMPARED SERIES

SERIES 1 : CONTROLS

SERIES 2 : ROVOL V : 38.8

SERIES 3 : ROVOL V : 155.2

VARIABLE	COMPARED VARIANCES (BARTLETT'S TEST)				COMPARED MEANS				
	ddl	Chi2	P	Sig	Test	ddl		P	Sig
D1 to D5	2	2.076	0.3541	NS	AOV	2.12	F= 0.644	.5424	NS
D5 to D8	2	0.426	0.8080	NS	AOV	2.12	F= 3.117	.0812	NS
D8 to D12	2	4.351	0.1136	NS	AOV	2.12	F= 0.833	.4583	NS
D12 to D15	2	2.486	0.2886	NS	AOV	2.12	F= 1.982	.1804	NS
D15 to D19	2	0.646	0.7240	NS	AOV	2.12	F= 1.523	.2573	NS
D19 to D22	2	2.448	0.2940	NS	AOV	2.12	F= 2.993	.0882	NS
D22 to D26	2	4.627	0.0989	NS	AOV	2.12	F= 0.516	.6097	NS
D26 to D28	2	5.164	0.0756	NS	AOV	2.12	F= 2.523	.1217	NS

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WATER/FOOD RATIO

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 1 to D 5					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	1.213	0.0684	0.1529	0.0234
ROVOL V : 38.8	5	1.239	0.0334	0.0747	0.0056
ROVOL V : 155.2	5	1.261	0.0427	0.0954	0.0091

D 5 to D 8					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	1.163	0.0486	0.1086	0.0118
ROVOL V : 38.8	5	1.164	0.0108	0.0241	0.0006
ROVOL V : 155.2	5	1.248	0.0362	0.0809	0.0065

D 8 to D 12					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	1.239	0.0835	0.1867	0.0349
ROVOL V : 38.8	5	1.283	0.0346	0.0773	0.0060
ROVOL V : 155.2	5	1.227	0.0755	0.1689	0.0285

D 12 to D 15					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	1.167	0.0554	0.1239	0.0154
ROVOL V : 38.8	5	1.265	0.0082	0.0184	0.0003
ROVOL V : 155.2	5	1.224	0.0496	0.1110	0.0123

D 15 to D 19					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	1.199	0.0625	0.1397	0.0195
ROVOL V : 38.8	5	1.265	0.0238	0.0533	0.0028
ROVOL V : 155.2	5	1.228	0.0632	0.1413	0.0200

D 19 to D 22					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	1.136	0.0573	0.1282	0.0164
ROVOL V : 38.8	5	1.229	0.0341	0.0763	0.0058
ROVOL V : 155.2	5	1.214	0.0457	0.1022	0.0104

**ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WATER/FOOD RATIO**

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

D 22 to D 26					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	1.232	0.0807	0.1805	0.0326
ROVOL V : 38.8	5	1.328	0.0321	0.0718	0.0052
ROVOL V : 155.2	5	1.255	0.0601	0.1343	0.0180

D 26 to D 28					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	5	1.198	0.0468	0.1046	0.0109
ROVOL V : 38.8	5	1.313	0.0540	0.1207	0.0146
ROVOL V : 155.2	5	1.214	0.0528	0.1181	0.0139

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WATER/FOOD RATIO

COMPARED SERIES

SERIES 1 : CONTROLS

SERIES 2 : ROVOL V : 38.8

SERIES 3 : ROVOL V : 155.2

VARIABLE	COMPARED VARIANCES (BARTLETT'S TEST)				COMPARED MEANS				
	ddl	Chi2	P	Sig	Test	ddl		P	Sig
D1 to D5	2	1.948	0.3775	NS	AOV	2.12	F= 0.230	.7976	NS
D5 to D8	2	6.201	0.0450	S	K-W	2	X2 = 3.12	.2101	NS
D8 to D12	2	2.636	0.2677	NS	AOV	2.12	F= 0.188	.8314	NS
D12 to D15	2	9.153	0.0103	S	K-W	2	X2= 1.58	.4538	NS
D15 to D19	2	3.350	0.1873	NS	AOV	2.12	F= 0.395	.6824	NS
D19 to D22	2	0.933	0.6273	NS	AOV	2.12	F= 1.160	.3463	NS
D22 to D26	2	2.705	0.2586	NS	AOV	2.12	F= 0.668	.5308	NS
D26 to D28	2	0.083	0.9593	NS	AOV	2.12	F= 1.482	.2659	NS

**ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : HEMATOLOGY**

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

ERYTHROCYTES					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	8.26	0.111	0.352	0.1238
ROVOL V : 38.8	10	8.27	0.152	0.481	0.2317
ROVOL V : 155.2	10	8.30	0.086	0.271	0.0736

HEMOGLOBIN					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	10.8	0.11	0.35	0.1246
ROVOL V : 38.8	10	10.7	0.18	0.58	0.3404
ROVOL V : 155.2	10	10.7	0.12	0.39	0.1511

HEMATOCRIT					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	0.46	0.005	0.014	0.0002
ROVOL V : 38.8	10	0.46	0.007	0.021	0.0004
ROVOL V : 155.2	10	0.46	0.005	0.016	0.0002

V.G.M.					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	55.16	0.484	1.529	2.3389
ROVOL V : 38.8	10	56.07	0.577	1.823	3.3248
ROVOL V : 155.2	10	55.00	0.861	2.721	7.4065

C.G.M.					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	23.68	0.227	0.718	0.5148
ROVOL V : 38.8	10	23.02	0.186	0.588	0.3457
ROVOL V : 155.2	10	23.47	0.227	0.718	0.5154

LEUCOCYTES					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	9.790	0.6871	2.1727	4.7204
ROVOL V : 38.8	10	8.282	0.4601	1.4548	2.1166
ROVOL V : 155.2	10	10.654	0.9274	2.9328	8.6014

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : HEMATOLOGY

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

NEUTROPH.					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	10.6	1.10	3.47	12.0444
ROVOL V : 38.8	10	10.2	0.77	2.44	5.9556
ROVOL V : 155.2	10	8.8	0.73	2.30	5.2889

EOSINOPH.					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	1.6	0.37	1.17	1.3778
ROVOL V : 38.8	10	1.8	0.33	1.03	1.0667
ROVOL V : 155.2	10	1.4	0.31	0.97	0.9333

BASOPH.					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	0.0	0.00	0.00	0.0000
ROVOL V : 38.8	10	0.0	0.00	0.00	0.0000
ROVOL V : 155.2	10	0.0	0.00	0.00	0.0000

LYMPHOCYTES					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	87.3	1.37	4.35	18.9000
ROVOL V : 38.8	10	87.4	0.96	3.03	9.1556
ROVOL V : 155.2	10	89.0	1.13	3.56	12.6667

MONOCYTES					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	0.5	0.17	0.53	0.2778
ROVOL V : 38.8	10	0.6	0.22	0.70	0.4889
ROVOL V : 155.2	10	0.8	0.29	0.92	0.8444

THROMBOCYTES					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	625	26.9	85.0	7222.2333
ROVOL V : 38.8	10	590	22.4	70.8	5009.7778
ROVOL V : 155.2	10	679	31.7	100.4	10076.2667

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : HEMATOLOGY

COMPARED SERIES

SERIES 1 : CONTROLS

SERIES 2 : ROVOL V : 38.8

SERIES 3 : ROVOL V : 155.2

VARIABLE	COMPARED VARIANCES (BARTLETT'S TEST)				COMPARED MEANS				
	ddl	Chi2	P	Sig	Test	ddl		P	Sig
Erythrocytes	2	2.800	0.2466	NS	AOV	2.27	F= 0.037	.9636	NS
Hemoglobin	2	2.585	0.2746	NS	AOV	2.27	F= 0.152	.8600	NS
Hematocrit	2	1.452	0.4838	NS	AOV	2.27	F= 0.634	.5382	NS
V.G.M.	2	3.102	0.2120	NS	AOV	2.27	F= 0.773	.4717	NS
C.G.M.	2	0.433	0.8052	NS	AOV	2.27	F= 2.480	.1026	NS
Leucocytes	2	3.955	0.1384	NS	AOV	2.27	F= 2.800	.0785	NS
Neutroph.	2	1.797	0.4071	NS	AOV	2.27	F= 1.151	.3314	NS
Eosinoph.	2	0.341	0.8431	NS	AOV	2.27	F= 0.355	.7042	NS
Lymphocytes	2	1.132	0.5678	NS	AOV	2.27	F= 0.670	.5198	NS
Monocytes	2	2.578	0.2756	NS	AOV	2.27	F= 0.434	.6520	NS
Thrombocytes	2	1.032	0.5970	NS	AOV	2.27	F= 2.732	.0831	NS

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : BIOCHEMICAL DATA

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

CHOLESTEROL					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	3.04	0.144	0.455	0.2070
ROVOL V : 38.8	10	3.09	0.179	0.566	0.3206
ROVOL V : 155.2	10	3.49	0.122	0.387	0.1500

TRIGLYCERIDES					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	0.93	0.089	0.282	0.0796
ROVOL V : 38.8	10	0.91	0.081	0.257	0.0660
ROVOL V : 155.2	10	1.09	0.093	0.294	0.0866

PROTEINS					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	68.3	0.58	1.83	3.3307
ROVOL V : 38.8	10	68.9	0.91	2.86	8.1916
ROVOL V : 155.2	10	69.3	0.96	3.03	9.2094

CALCIUM					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	2.82	0.030	0.093	0.0087
ROVOL V : 38.8	10	2.85	0.043	0.138	0.0189
ROVOL V : 155.2	10	2.81	0.034	0.108	0.0116

OSMOLARITY					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	1622	78.7	248.9	61928.0556
ROVOL V : 38.8	10	1574	66.5	210.4	44261.3889
ROVOL V : 155.2	10	1252	42.0	132.9	17673.3333

URINARY CREATININ					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	11.1	0.93	2.93	8.5632
ROVOL V : 38.8	10	10.2	0.53	1.67	2.7823
ROVOL V : 155.2	10	7.5	0.61	1.94	3.7707

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : BIOCHEMICAL DATA

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

SERIC CREAT.					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	70.3	1.64	5.20	27.0157
ROVOL V : 38.8	10	76.6	1.94	6.14	37.6468
ROVOL V : 155.2	10	76.6	1.41	4.45	19.8062

CREATININ CLEARANCE					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	0.675	0.0460	0.1453	0.0211
ROVOL V : 38.8	10	0.864	0.0539	0.1705	0.0291
ROVOL V : 155.2	10	0.509	0.0581	0.1836	0.0337

UREA					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	7.28	0.281	0.889	0.7912
ROVOL V : 38.8	10	7.06	0.304	0.960	0.9215
ROVOL V : 155.2	10	6.93	0.347	1.097	1.2024

BILIRUBIN					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	5.66	0.531	1.679	2.8182
ROVOL V : 38.8	10	5.47	0.384	1.213	1.4712
ROVOL V : 155.2	10	4.66	0.310	0.980	0.9604

SGOT					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	64.8	4.14	13.09	171.3027
ROVOL V : 38.8	10	73.4	2.67	8.46	71.5121
ROVOL V : 155.2	10	62.1	2.52	7.98	63.6432

SGPT					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	28.3	3.97	12.57	157.9957
ROVOL V : 38.8	10	37.5	5.28	16.71	279.2129
ROVOL V : 155.2	10	25.4	1.89	5.97	35.6801

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : BIOCHEMICAL DATA

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

ALIMENTARY PHOSPHATE					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	131	7.2	22.7	515.2111
ROVOL V : 38.8	10	125	7.6	24.0	576.3222
ROVOL V : 155.2	10	120	7.5	23.6	556.1000

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : BIOCHEMICAL DATA

COMPARED SERIES

SERIES 1 : CONTROLS

SERIES 2 : ROVOL V : 38.8

SERIES 3 : ROVOL V : 155.2

VARIABLE	COMPARED VARIANCES (BARTLETT'S TEST)				COMPARED MEANS				
	ddl	Chr2	P	Sig	Test	ddl		P	Sig
Cholester.	2	1.255	0.5339	NS	AOV	2.27	F= 2.659	.0883	NS
Triglycer.	2	0.163	0.9219	NS	AOV	2.27	F= 1.243	.3046	NS
Proteins	2	2.339	0.3105	NS	AOV	2.27	F= 0.421	.6605	NS
Calcium	2	1.341	0.5115	NS	AOV	2.27	F= 0.406	.6702	NS
Osmolarity	2	3.204	0.2015	NS	AOV	2.27	F= 9.777	.0006	S
Uri. Crea	2	3.031	0.2197	NS	AOV	2.27	F= 7.044	.0035	S
Seric Crea	2	0.880	0.6439	NS	AOV	2.27	F= 4.691	.0178	S
Crea Clearance	2	0.475	0.7886	NS	AOV	2.27	F=11.269	.0003	S
Urea	2	0.390	0.8227	NS	AOV	2.27	F= 0.326	.7246	NS
Bilirubin	2	2.547	0.2799	NS	AOV	2.27	F= 1.612	.2182	NS
SGOT	2	2.683	0.2615	NS	AOV	2.27	F= 3.430	.0471	S
SGPT	2	7.818	0.0201	S	K-W	2	X2= 3.49	.1744	NS
Al. Phosph.	2	0.028	0.9861	NS	AOV	2.27	F= 0.552	.5820	NS

FEMALE RAT

STUDENT-NEWMAN-KEULS

Classification test with significance level p 0.05

OSMOLARITY variable vs. SERIES variable

Difference between 2 means is significant if

$$\text{Mean (J)} - \text{Mean (I)} \leq 143.6795 \times \text{RANGE} \times \text{SQRT} (1/N(I)+1/N(J))$$

With the following range values:

Step	2	3
Range	2.90	3.50

(*) Indicates significant differences.

MEAN	SERIES	ROVOL V 155.2	ROVOL V 38.8	CONTROLS
1252.0	ROVOL V 155.2			
1573.5	ROVOL V 38.8	*		
1621.5	CONTROLS	*		

Subset 1

SERIES	ROVOL V 155.2
MEAN	1252.0

Subset 2

SERIES	ROVOL V 38.8	CONTROLS
MEAN	1573.5	1621.5

URINARY CREATININ variable vs. SERIES variable

Difference between 2 means is significant if

$$\text{Mean (J)} - \text{Mean (I)} \leq 1.5873 \times \text{RANGE} \times \text{SQRT} (1/N(I)+1/N(J))$$

With the following range values:

Step	2	3
Range	2.90	3.50

(*) Indicates significant differences.

MEAN	SERIES	ROVOL V 155.2	ROVOL V 38.8	CONTROLS
7.48	ROVOL V 155.2			
10.17	ROVOL V 38.8	*		
11.11	CONTROLS	*		

Subset 1

SERIES	ROVOL V 155.2
MEAN	7.48

Subset 2

SERIES	ROVOL V 38.8	CONTROLS
MEAN	10.17	11.11

FEMALE RAT

STUDENT-NEWMAN-KEULS

Classification test with significance level p 0.05

SERUM CREATININ variable per SERIES variable

Difference between 2 means is significant if

$$\text{Mean (J)} - \text{Mean (I)} \leq 3.7521 \times \text{RANGE} \times \text{SQRT} (1/N(I)+1/N(J))$$

With the following range values:

Step	2	3
Range	2.90	3.50

(*) Indicates significant differences.

MEAN	SERIES	CONTROLS	ROVOL V 155.2	ROVOL V 38.8
70.33	Controls			
76.62	ROVOL V 155.2	*		
76.63	ROVOL V 38.8	*		

Subset 1

SERIES	CONTROLS
MEAN	70.33

Subset 2

SERIES	ROVOL V 155.2	ROVOL V 38.8
MEAN	76.62	76.63

CREATININ CLEARANCE variable per SERIES variable

Difference between 2 means is significant if

$$\text{Mean (J)} - \text{Mean (I)} \leq 0.1183 \times \text{RANGE} \times \text{SQRT} (1/N(I)+1/N(J))$$

With the following range values:

Step	2	3
Range	2.90	3.50

(*) Indicates significant differences.

MEAN	SERIES	ROVOL V 155.2	CONTROLS	ROVOL V 38.8
0.5089	ROVOL V 155.2			
0.6754	CONTROLS	*		
0.8640	ROVOL V 38.8	*	*	

Subset 1

SERIES	ROVOL V 155.2
MEAN	0.5089

Subset 3

SERIES	ROVOL V 38.8
MEAN	0.8640

Subset 2

SERIES	CONTROLS
MEAN	0.6754

FEMALE RAT

STUDENT-NEWMAN-KEULS

Classification test with significance level p 0.05

SGOT variable per SERIES variable

Difference between 2 means is significant if

$$\text{Mean (J)} - \text{Mean (I)} \leq 7.1468 \times \text{RANGE} \times \text{SQRT} (1/N(I)+1/N(J))$$

With the following range values:

Step	2	3
Range	2.90	3.50

(*) Indicates significant differences.

MEAN	SERIES	ROVOL V 155.2	CONTROLS	ROVOL V 38.8
62.09	ROVOL V 155.2			
64.75	CONTROLS			
73.41	ROVOL V 38.8	*		

Subset 1

SERIES	ROVOL V 155.2	CONTROLS
MEAN	62.09	64.75

Subset 2

SERIES	CONTROLS	ROVOL V 38.8
MEAN	64.75	73.41

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : URINARY EXCRETION

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

EXCR VOL. 4 H					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	6.8	0.44	1.40	1.9556
ROVOL V : 38.8	10	6.9	0.46	1.45	2.1000
ROVOL V : 155.2	10	7.1	0.58	1.83	3.3583

% EXCR VOL. 4 H					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	87.71	4.828	15.267	233.0965
ROVOL V : 38.8	10	85.69	4.931	15.594	243.1743
ROVOL V : 155.2	10	85.31	6.793	21.482	461.4943

EXCR VOL. 7 H					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	7.4	0.42	1.33	1.7760
ROVOL V : 38.8	10	7.5	0.55	1.75	3.0582
ROVOL V : 155.2	10	8.0	0.64	2.02	4.0929

% EXCR VOL. 7 H					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	96.05	4.510	14.263	203.4450
ROVOL V : 38.8	10	92.50	5.860	18.530	343.3711
ROVOL V : 155.2	10	97.11	7.561	23.911	571.7477

VOL. 7-24 H					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	4.5	0.38	1.19	1.4160
ROVOL V : 38.8	10	5.3	0.32	1.02	1.0339
ROVOL V : 155.2	10	6.7	0.40	1.28	1.6373

EXCR VOL. 24 H					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	12.0	0.57	1.82	3.2951
ROVOL V : 38.8	10	12.7	0.80	2.53	6.4099
ROVOL V : 155.2	10	14.7	0.81	2.55	6.5000

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : URINARY EXCRETION

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

pH					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	6.30	0.153	0.483	0.2333
ROVOL V : 38.8	10	6.20	0.133	0.422	0.1778
ROVOL V : 155.2	10	6.25	0.154	0.486	0.2361

**ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : URINARY EXCRETION**

COMPARED SERIES

SERIES 1 : CONTROLS

SERIES 2 : ROVOL V : 38.8

SERIES 3 : ROVOL V : 155.2

VARIABLE	COMPARED VARIANCES (BARTLETT'S TEST)				COMPARED MEANS				
	ddl	Chi2	P	Sig	Test	ddl		P	Sig
Exc. Vol. 4h	2	0.773	0.6793	NS	AOV	2.27	F= 0.064	.9381	NS
% Exc. 4h	2	1.329	0.5145	NS	AOV	2.27	F= 0.053	.9483	NS
Exc. Vol. 7h	2	1.458	0.4824	NS	AOV	2.27	F= 0.364	.6981	NS
% Exc. 7h	2	2.236	0.3270	NS	AOV	2.27	F= 0.156	.8560	NS
Vol. 7-24h	2	0.459	0.7949	NS	AOV	2.27	F= 8.721	.0012	S
Exc. Vol. 24h	2	1.184	0.5532	NS	AOV	2.27	F= 3.669	.0389	S
pH	2	0.214	0.8986	NS	AOV	2.27	F= 0.116	.8912	NS

FEMALE RAT

STUDENT-NEWMAN-KEULS

Classification test with significance level p 0.05

7 to 24 h EXCRETED VOLUME variable vs. SERIES variable

Difference between 2 means is significant if

$$\text{Mean (J)} - \text{Mean (I)} \leq 0.8254 \times \text{RANGE} \times \text{SQRT} (1/N(I)+1/N(J))$$

With the following range values:

Step	2	3
Range	2.90	3.50

(*) Indicates significant differences.

MEAN	SERIES	CONTROLS	ROVOL V 38.8	ROVOL V 155.2
4.54	CONTROLS			
5.25	ROVOL V 38.8			
6.68	ROVOL V 155.2	*	*	

Subset 1

SERIES	CONTROLS	ROVOL V 38.8
MEAN	4.54	5.25

Subset 2

SERIES	ROVOL V 155.2
MEAN	6.68

24 h EXCRETED VOLUME variable vs SERIES variable

Difference between 2 means is significant if

$$\text{Mean (J)} - \text{Mean (I)} \leq 1.6434 \times \text{RANGE} \times \text{SQRT} (1/N(I)+1/N(J))$$

With the following range values:

Step	2	3
Range	2.90	3.50

(*) Indicates significant differences.

MEAN	SERIES	CONTROLS	ROVOL V 38.8	ROVOL V 155.2
11.98	CONTROLS			
12.71	ROVOL V 38.8			
14.70	ROVOL V 155.2	*		

Subset 1

SERIES	CONTROLS	ROVOL V 38.8
MEAN	11.98	12.71

Subset 2

SERIES	ROVOL V 38.8	ROVOL V 155.2
MEAN	12.71	14.70

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : ORGAN WEIGHT

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

KIDNEYS					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	1.785	0.0456	0.1442	0.0208
ROVOL V : 38.8	10	1.816	0.0428	0.1355	0.0184
ROVOL V : 155.2	10	1.805	0.0445	0.1408	0.0198

OVARIES					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	138.80	6.992	22.110	488.8444
ROVOL V : 38.8	10	144.30	5.596	17.695	313.1222
ROVOL V : 155.2	10	141.40	4.576	14.470	209.3778

ADRENALS					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	75.20	3.210	10.152	103.0667
ROVOL V : 38.8	10	84.80	2.943	9.307	86.6222
ROVOL V : 155.2	10	76.60	1.945	6.150	37.8222

LIVER					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	7.45	0.176	0.558	0.3112
ROVOL V : 38.8	10	7.67	0.186	0.590	0.3475
ROVOL V : 155.2	10	8.55	0.281	0.888	0.7882

HEART					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	0.800	0.0152	0.0480	0.0023
ROVOL V : 38.8	10	0.837	0.0367	0.1160	0.0135
ROVOL V : 155.2	10	0.875	0.0287	0.0909	0.0083

THYMUS					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	618.4	37.88	119.79	14349.3778
ROVOL V : 38.8	10	540.7	42.69	135.01	18228.2333
ROVOL V : 155.2	10	603.3	47.90	151.47	22943.1222

**ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : ORGAN WEIGHT**

RECAPITULATION : MEAN, ERROR AND STANDARD DEVIATION VARIANCE

SPLEEN					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	545.4	17.58	55.60	3091.8222
ROVOL V : 38.8	10	544.5	23.00	72.74	5290.5000
ROVOL V : 155.2	10	606.3	24.87	78.63	6183.3444

BRAIN					
SERIES	N	MEAN	STANDARD ERROR	STANDARD DEVIATION	VARIANCE
CONTROLS	10	1.370	0.0198	0.0627	0.0039
ROVOL V : 38.8	10	1.332	0.0223	0.0705	0.0050
ROVOL V : 155.2	10	1.309	0.0277	0.0875	0.0077

FEMALE RAT

COVARIANCE ANALYSIS

COMPARISON OF THE THREE SERIES

KIDNEYS, per Series, in function of body weight

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	0.271	1	0.271	27.060	0.000
SERIES	0.035	2	0.017	1.727	0.198
Residual	0.260	26	0.010		
Total	0.536	29	0.018		

OVARIES, per Series, in function of body weight

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	513.996	1	513.996	1.556	0.223
SERIES	123.686	2	61.843	0.187	0.830
Residual	8588.104	26	330.312		
Total	9253.500	29	319.086		

ADRENALS, per Series, in function of body weight

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	81.201	1	81.201	1.074	0.310
SERIES	516.203	2	258.102	3.413	0.048
Residual	1966.399	26	75.631		
Total	2585.467	29	89.154		

LIVER, per Series, in function of body weight

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	7.762	1	7.762	38.363	0.000
SERIES	1.977	2	0.989	4.887	0.016
Residual	5.260	26	0.202		
Total	19.830	29	0.684		

HEART, per Series, in function of body weight

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	0.106	1	0.106	25.018	0.000
SERIES	0.000	2	0.000	0.031	0.969
Residual	0.110	26	0.004		
Total	0.245	29	0.008		

FEMALE RAT**COVARIANCE ANALYSIS****COMPARISON OF THE THREE SERIES****THYMUS**, per Series, in function of body weight

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	182080.888	1	182080.888	14.906	0.001
SERIES	82466.560	2	41233.280	3.375	0.050
Residual	317605.712	26	12215.604		
Total	533633.467	29	18401.154		

SPLEEN, per Series, in function of body weight

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	11423.108	1	11423.108	2.482	0.127
SERIES	13231.869	2	6615.934	1.437	0.256
Residual	119667.892	26	4602.611		
Total	156187.200	29	5835.766		

BRAIN, per Series, in function of body weight

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	0.006	1	0.006	1.114	0.301
SERIES	0.025	2	0.012	2.252	0.125
Residual	0.143	26	0.005		
Total	0.168	29	0.006		

FEMALE RAT

COVARIANCE ANALYSIS

ADRENALS, per Series, in function of body weight

COMPARISON OF THE TWO SERIES: CONTROLS
ROVOL V 38.8 mg/kg P.O.

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	10.586	1	10.586	0.106	0.749
SERIES	376.451	1	376.451	3.772	0.069
Residual	1696.614	17	99.801		
Total	2168.000	19	114.105		

COMPARISON OF THE TWO SERIES: CONTROLS
ROVOL V 155.2 mg/kg P.O.

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	224.783	1	224.783	3.663	0.073
SERIES	30.665	1	30.665	0.500	0.489
Residual	1043.217	17	61.366		
Total	1277.800	19	67.253		

COMPARISON OF THE TWO SERIES: ROVOL V 38.8 mg/kg P.O.
ROVOL V 155.2 mg/kg P.O.

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	24.081	1	24.081	0.374	0.549
SERIES	359.941	1	359.941	5.583	0.030
Residual	1095.919	17	64.466		
Total	1456.200	19	76.642		

FEMALE RAT

COVARIANCE ANALYSIS

LIVER, per Series, in function of body weight

COMPARISON OF THE TWO SERIES: CONTROLS
ROVOL V 38.8 mg/kg P.O.

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	3.791	1	3.791	30.159	0.000
SERIES	0.018	1	0.018	0.146	0.708
Residual	2.137	17	0.126		
Total	6.171	19	0.325		

COMPARISON OF THE TWO SERIES: CONTROLS
ROVOL V 155.2 mg/kg P.O.

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	6.115	1	6.115	27.511	0.000
SERIES	0.520	1	0.520	2.339	0.145
Residual	3.779	17	0.222		
Total	15.971	19	0.841		

COMPARISON OF THE TWO SERIES: ROVOL V 38.8 mg/kg P.O.
ROVOL V 155.2 mg/kg P.O.

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	5.911	1	5.911	23.314	0.000
SERIES	1.862	1	1.862	7.342	0.015
Residual	4.310	17	0.254		
Total	14.114	19	0.743		

FEMALE RAT

COVARIANCE ANALYSIS

THYMUS, per Series, in function of body weight

COMPARISON OF THE TWO SERIES: CONTROLS
ROVOL V 38.8 mg/kg P.O.

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	85966.166	1	85966.166	7.052	0.017
SERIES	65548.357	1	65548.357	5.377	0.033
Residual	207232.334	17	12190.137		
Total	323384.950	19	17020.261		

COMPARISON OF THE TWO SERIES: CONTROLS
ROVOL V 155.2 mg/kg P.O.

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	172586.503	1	172586.503	17.995	0.001
SERIES	64780.370	1	64780.370	6.754	0.019
Residual	163045.997	17	9590.941		
Total	336772.550	19	17724.871		

COMPARISON OF THE TWO SERIES: ROVOL V 38.8 mg/kg P.O.
ROVOL V 155.2 mg/kg P.O.

SOURCE OF VARIATION	SUM OF SQUARES	DEGREE OF FREEDOM	ESTIMATED VARIANCE	F	SIGNIFICANCE OF F
Covariate Weight	120347.970	1	120347.970	8.177	0.011
SERIES	3238.269	1	3238.269	0.220	0.645
Residual	250194.230	17	14717.308		
Total	390136.000	19	20533.474		

MALE RATS

APPENDIX A 1 to A 27

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WEIGHT EVOLUTION

SERIES : CONTROLS

DOSE : 0 mg/kg P.O.

ANIMAL :	D 1	D 4	D 8	D 11	D 15
S 2460	148	173	201	229	263
S 2482	154	181	218	249	287
S 2458	157	184	225	253	289
S 2474	159	190	229	255	291
S 2465	162	193	233	267	309
S 2477	161	185	221	249	280
S 2473	163	192	227	255	291
S 2485	165	195	230	253	290
S 2457	167	191	231	262	300
S 2478	170	202	247	280	322
MEAN :	161	189	226	255	292
S.E.M. :	2.0	2.6	3.7	4.2	5.0

ANIMAL :	D 18	D 22	D 25	D 28	D 29
S 2460	294	323	342	356	321
S 2482	314	350	376	401	362
S 2458	321	355	379	395	356
S 2474	316	347	367	384	349
S 2465	342	385	408	431	387
S 2477	305	332	350	368	332
S 2473	323	360	389	415	372
S 2485	310	342	359	381	346
S 2457	328	361	391	413	374
S 2478	353	397	419	444	402
MEAN :	321	355	378	399	360
S.E.M. :	5.5	7.1	7.8	8.7	7.8

ANIMAL :	D 28 - D 1
S 2460	208
S 2482	247
S 2458	238
S 2474	225
S 2465	269
S 2477	207
S 2473	252
S 2485	216
S 2457	246
S 2478	274
MEAN :	238
S.E.M. :	7.5

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WEIGHT EVOLUTION

SERIES : ROVOL V : 38.8

DOSE : 38.8 mg/kg P.O.

ANIMAL :	D 1	D 4	D 8	D 11	D 15
S 2476	152	176	207	229	267
S 2480	147	172	213	241	276
S 2483	156	180	217	244	280
S 2484	157	181	221	251	284
S 2466	160	188	222	250	286
S 2475	162	187	225	250	288
S 2467	163	195	230	259	294
S 2481	166	191	221	247	279
S 2471	167	196	238	262	298
S 2479	169	204	245	282	323
MEAN :	160	187	224	252	288
S.E.M. :	2.2	3.1	3.6	4.5	4.8

ANIMAL :	D 18	D 22	D 25	D 28	D 29
S 2476	286	310	333	349	391
S 2480	298	329	355	378	340
S 2483	311	341	369	392	354
S 2484	316	337	356	361	326
S 2466	319	344	370	390	354
S 2475	314	343	362	383	348
S 2467	315	342	364	379	344
S 2481	300	325	345	357	325
S 2471	324	356	384	403	363
S 2479	355	394	424	451	408
MEAN :	314	342	366	384	355
S.E.M. :	5.8	7.0	7.8	9.1	8.4

ANIMAL :	D 28 - D 1
S 2476	197
S 2480	231
S 2483	236
S 2484	204
S 2466	230
S 2475	221
S 2467	216
S 2481	191
S 2471	236
S 2479	282
MEAN :	224
S.E.M. :	8.2

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WEIGHT EVOLUTION

SERIES : ROVOL V : 155.2

DOSE : 155.2 mg/kg P.O.

ANIMAL :	D 1	D 4	D 8	D 11	D 15
S 2463	150	178	215	241	274
S 2468	156	178	215	240	274
S 2461	159	182	216	240	274
S 2469	157	185	224	251	287
S 2486	161	191	232	260	296
S 2487	160	189	233	264	303
S 2459	164	199	242	272	308
S 2472	165	201	245	278	320
S 2462	167	201	237	262	292
S 2470	168	193	227	256	296
MEAN :	161	190	229	256	292
S.E.M. :	1.8	2.8	3.5	4.2	4.9

ANIMAL :	D 18	D 22	D 25	D 28	D 29
S 2463	300	328	353	370	331
S 2468	296	318	339	350	312
S 2461	296	325	345	359	326
S 2469	316	355	381	412	359
S 2486	317	345	365	382	350
S 2487	330	371	395	415	380
S 2459	336	375	410	436	388
S 2472	352	394	428	456	416
S 2462	322	347	369	394	356
S 2470	316	347	362	382	342
MEAN :	318	351	375	396	356
S.E.M. :	5.7	7.6	9.1	10.7	9.9

ANIMAL :	D 28 - D 1
S 2463	220
S 2468	194
S 2461	200
S 2469	255
S 2486	221
S 2487	255
S 2459	272
S 2472	291
S 2462	227
S 2470	214
MEAN :	235
S.E.M. :	10.1

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WEIGHT EVOLUTION

SERIES : CONTROLS

DOSE : 0 mg/kg P.O.

ANIMAL :	D 1 to D 4	D 4 to D 8	D 8 to D 11	D 11 to D 15	D 15 to D 18
S 2460	25.0	28.0	28.0	34.0	31.0
S 2482	27.0	37.0	31.0	38.0	27.0
S 2458	27.0	41.0	28.0	36.0	32.0
S 2474	31.0	39.0	26.0	36.0	25.0
S 2465	31.0	40.0	34.0	42.0	33.0
S 2477	24.0	36.0	28.0	31.0	25.0
S 2473	29.0	35.0	28.0	36.0	32.0
S 2485	30.0	35.0	23.0	37.0	20.0
S 2457	24.0	40.0	31.0	38.0	28.0
S 2478	32.0	45.0	33.0	42.0	31.0
MEAN :	28.0	37.6	29.0	37.0	28.4
S.E.M. :	0.95	1.45	1.04	1.05	1.32

ANIMAL :	D 18 to D 22	D 22 to D 25	D 25 to D 28
S 2460	29.0	19.0	14.0
S 2482	36.0	26.0	25.0
S 2458	34.0	24.0	16.0
S 2474	31.0	20.0	17.0
S 2465	43.0	23.0	23.0
S 2477	27.0	18.0	18.0
S 2473	37.0	29.0	26.0
S 2485	32.0	17.0	22.0
S 2457	33.0	30.0	22.0
S 2478	44.0	22.0	25.0
MEAN :	34.6	22.8	20.8
S.E.M. :	1.76	1.42	1.34

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WEIGHT EVOLUTION

SERIES : ROVOL V : 38.8

DOSE : 38.8 mg/kg P.O.

ANIMAL :	D 1 to D 4	D 4 to D 8	D 8 to D 11	D 11 to D 15	D 15 to D 18
S 2476	24.0	31.0	22.0	38.0	19.0
S 2480	25.0	41.0	28.0	35.0	22.0
S 2483	24.0	37.0	27.0	36.0	31.0
S 2484	24.0	40.0	30.0	33.0	32.0
S 2466	28.0	34.0	28.0	36.0	33.0
S 2475	25.0	38.0	25.0	38.0	26.0
S 2467	32.0	35.0	29.0	35.0	21.0
S 2481	25.0	30.0	26.0	32.0	21.0
S 2471	29.0	42.0	24.0	36.0	26.0
S 2479	35.0	41.0	37.0	41.0	32.0
MEAN :	27.1	36.9	27.6	36.0	26.3
S.E.M. :	1.22	1.35	1.29	0.82	1.70

ANIMAL :	D 18 to D 22	D 22 to D 25	D 25 to D 28
S 2476	24.0	23.0	16.0
S 2480	31.0	26.0	23.0
S 2483	30.0	28.0	23.0
S 2484	21.0	19.0	5.0
S 2466	25.0	26.0	20.0
S 2475	29.0	19.0	21.0
S 2467	27.0	22.0	15.0
S 2481	25.0	20.0	12.0
S 2471	32.0	28.0	19.0
S 2479	39.0	30.0	27.0
MEAN :	28.3	24.1	18.1
S.E.M. :	1.61	1.28	2.01

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WEIGHT EVOLUTION

SERIES : ROVOL V : 155.2

DOSE : 155.2 mg/kg P.O.

ANIMAL :	D 1 to D 4	D 4 to D 8	D 8 to D 11	D 11 to D 15	D 15 to D 18
S 2463	28.0	37.0	26.0	33.0	26.0
S 2468	22.0	37.0	25.0	34.0	22.0
S 2461	23.0	34.0	24.0	34.0	22.0
S 2469	28.0	39.0	27.0	36.0	29.0
S 2486	30.0	41.0	28.0	36.0	21.0
S 2487	29.0	44.0	31.0	39.0	27.0
S 2459	35.0	43.0	30.0	36.0	28.0
S 2472	36.0	44.0	33.0	42.0	32.0
S 2462	34.0	36.0	25.0	30.0	30.0
S 2470	25.0	34.0	29.0	40.0	20.0
MEAN :	29.0	38.9	27.8	36.0	25.7
S.E.M. :	1.54	1.23	0.93	1.13	1.33

ANIMAL :	D 18 to D 22	D 22 to D 25	D 25 to D 28
S 2463	28.0	25.0	17.0
S 2468	22.0	21.0	11.0
S 2461	29.0	20.0	14.0
S 2469	39.0	26.0	31.0
S 2486	28.0	20.0	17.0
S 2487	41.0	24.0	20.0
S 2459	39.0	35.0	26.0
S 2472	42.0	34.0	28.0
S 2462	25.0	22.0	25.0
S 2470	31.0	15.0	20.0
MEAN :	32.4	24.2	20.9
S.E.M. :	2.28	1.98	2.04

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : FOOD INTAKE (g/d/rat)

SERIES : CONTROLS

DOSE : 0 mg/kg P.O.

CAGE :	D 1 to D 4	D 4 to D 8	D 8 to D 11	D 11 to D 15	D 15 to D 18
2	22.80	27.10	30.30	30.50	32.30
4	25.70	29.40	31.50	31.50	32.50
8	25.50	28.40	30.20	31.30	33.00
12	26.00	28.30	29.20	29.40	32.10
15	25.70	29.90	32.20	32.40	34.80
MEAN :	25.14	28.62	30.68	31.02	32.94
S.E.M. :	0.590	0.485	0.527	0.505	0.488

CAGE :	D 18 to D 22	D 22 to D 25	D 25 to D 28
2	34.00	35.00	33.30
4	35.00	35.20	33.70
8	35.30	35.20	35.00
12	34.50	35.00	33.80
15	36.00	36.50	34.70
MEAN :	34.96	35.38	34.10
S.E.M. :	0.341	0.284	0.321

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : FOOD INTAKE (g/d/rat)

SERIES : ROVOL V : 38.8

DOSE : 38.8 mg/kg P.O.

CAGE :	D 1 to D 4	D 4 to D 8	D 8 to D 11	D 11 to D 15	D 15 to D 18
1	20.80	24.80	27.00	28.00	28.30
5	24.30	29.00	30.80	31.50	33.20
7	24.20	26.50	27.80	29.00	30.70
11	24.70	26.80	27.30	27.50	28.00
13	28.50	32.10	33.50	34.10	35.50
MEAN :	24.50	27.84	29.29	30.02	31.14
S.E.M. :	1.222	1.257	1.254	1.231	1.438

CAGE :	D 18 to D 22	D 22 to D 25	D 25 to D 28
1	29.90	30.30	30.30
5	34.00	33.70	31.70
7	31.40	31.70	32.20
11	29.60	30.30	33.20
13	37.00	37.70	37.20
MEAN :	32.38	32.74	32.92
S.E.M. :	1.393	1.388	1.168

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : FOOD INTAKE (g/d/rat)

SERIES : ROVOL V : 155.2

DOSE : 155.2 mg/kg P.O.

CAGE :	D 1 to D 4	D 4 to D 8	D 8 to D 11	D 11 to D 15	D 15 to D 18
3	23.80	26.80	28.70	28.90	29.80
6	23.50	26.30	27.50	27.90	29.00
9	27.30	30.00	31.70	31.90	32.70
10	28.30	31.00	32.30	33.10	34.00
14	27.00	28.60	29.00	30.00	32.00
MEAN :	25.98	28.54	29.84	30.36	31.50
S.E.M. :	0.976	0.901	0.922	0.954	0.924

CAGE :	D 18 to D 22	D 22 to D 25	D 25 to D 28
3	31.90	31.70	30.00
6	31.50	31.30	31.30
9	37.50	35.00	34.20
10	38.30	39.00	39.80
14	31.80	32.50	31.20
MEAN :	34.20	33.90	33.30
S.E.M. :	1.517	1.428	1.766

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WATER INTAKE (ml/d/rat)

SERIES : CONTROLS

DOSE : 0 mg/kg P.O.

CAGE :	D 1 to D 4	D 4 to D 8	D 8 to D 11	D 11 to D 15	D 15 to D 18
2	28.50	31.30	34.20	35.10	35.70
4	31.80	38.30	39.30	46.10	44.80
8	28.30	33.60	33.20	36.60	37.50
12	30.70	33.00	33.30	35.00	34.70
15	26.30	30.50	31.20	36.90	34.50
MEAN :	29.12	33.34	34.24	37.94	37.44
S.E.M. :	0.967	1.360	1.357	2.076	1.915

CAGE :	D 18 to D 22	D 22 to D 25	D 25 to D 28
2	38.50	39.20	39.00
4	49.80	44.50	46.20
8	42.10	39.70	42.80
12	40.10	38.50	42.00
15	36.50	35.50	36.80
MEAN :	41.40	39.48	41.36
S.E.M. :	2.293	1.451	1.617

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WATER INTAKE (ml/d/rat)

SERIES : ROVOL V : 38.8

DOSE : 38.8 mg/kg P.O.

CAGE :	D 1 to D 4	D 4 to D 8	D 8 to D 11	D 11 to D 15	D 15 to D 18
1	25.20	29.50	30.50	33.40	30.80
5	28.00	34.00	35.20	38.90	39.80
7	26.30	29.90	30.00	33.60	34.00
11	27.00	29.50	29.50	30.80	29.50
13	33.70	37.00	38.00	44.40	43.50
MEAN :	28.04	31.98	32.64	36.22	35.52
S.E.M. :	1.487	1.515	1.684	2.432	2.672

CAGE :	D 18 to D 22	D 22 to D 25	D 25 to D 28
1	34.10	34.70	33.80
5	42.60	44.50	41.70
7	36.00	36.20	36.00
11	33.90	32.30	31.50
13	45.30	47.20	48.20
MEAN :	38.38	38.98	38.24
S.E.M. :	2.343	2.904	3.011

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WATER INTAKE (ml/d/rat)

SERIES : ROVOL V : 155.2

DOSE : 155.2 mg/kg P.O.

CAGE :	D 1 to D 4	D 4 to D 8	D 8 to D 11	D 11 to D 15	D 15 to D 18
3	29.30	35.00	34.70	37.90	38.00
6	26.20	32.10	35.10	36.50	37.80
9	28.50	32.60	32.00	37.60	36.50
10	33.00	37.40	38.00	39.90	42.20
14	30.70	35.50	33.70	34.90	34.00
MEAN :	29.54	34.52	34.70	37.36	37.70
S.E.M. :	1.132	0.975	0.983	0.824	1.332

CAGE :	D 18 to D 22	D 22 to D 25	D 25 to D 28
3	43.80	41.50	40.20
6	42.30	41.70	41.70
9	40.30	38.20	40.30
10	47.60	45.80	48.30
14	42.60	37.80	38.50
MEAN :	43.32	41.00	41.80
S.E.M. :	1.209	1.447	1.702

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WATER/FOOD RATIO

SERIES : CONTROLS

DOSE : 0 mg/kg P.O.

CAGE :	D 1 to D 4	D 4 to D 8	D 8 to D 11	D 11 to D 15	D 15 to D 18
2	1.250	1.155	1.129	1.151	1.105
4	1.237	1.303	1.248	1.463	1.378
8	1.110	1.183	1.099	1.169	1.136
12	1.181	1.166	1.140	1.190	1.081
15	1.023	1.020	0.969	1.139	0.991
MEAN :	1.160	1.165	1.117	1.223	1.138
S.E.M. :	0.0423	0.0449	0.0447	0.0609	0.0647

CAGE :	D 18 to D 22	D 22 to D 25	D 25 to D 28
2	1.132	1.120	1.171
4	1.423	1.264	1.371
8	1.193	1.128	1.223
12	1.162	1.100	1.243
15	1.014	0.973	1.061
MEAN :	1.185	1.117	1.214
S.E.M. :	0.0668	0.0463	0.0505

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WATER/FOOD RATIO

SERIES : ROVOL V : 38.8

DOSE : 38.8 mg/kg P.O.

CAGE :	D 1 to D 4	D 4 to D 8	D 8 to D 11	D 11 to D 15	D 15 to D 18
1	1.212	1.190	1.130	1.193	1.088
5	1.152	1.172	1.143	1.235	1.199
7	1.087	1.128	1.079	1.159	1.107
11	1.093	1.101	1.081	1.120	1.054
13	1.182	1.153	1.134	1.302	1.225
MEAN :	1.145	1.149	1.113	1.202	1.135
S.E.M. :	0.0245	0.0157	0.0138	0.0315	0.0330

CAGE :	D 18 to D 22	D 22 to D 25	D 25 to D 28
1	1.140	1.145	1.116
5	1.253	1.320	1.315
7	1.146	1.142	1.118
11	1.145	1.066	0.949
13	1.224	1.252	1.296
MEAN :	1.182	1.185	1.159
S.E.M. :	0.0236	0.0450	0.0674

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : WATER/FOOD RATIO

SERIES : ROVOL V : 155.2

DOSE : 155.2 mg/kg P.O.

CAGE :	D 1 to D 4	D 4 to D 8	D 8 to D 11	D 11 to D 15	D 15 to D 18
3	1.231	1.306	1.209	1.311	1.275
6	1.115	1.221	1.276	1.308	1.303
9	1.1044	1.087	1.009	1.179	1.116
10	1.166	1.206	1.176	1.205	1.241
14	1.137	1.241	1.162	1.163	1.063
MEAN :	1.139	1.212	1.167	1.233	1.200
S.E.M. :	0.0307	0.0357	0.0440	0.0319	0.0469

CAGE :	D 18 to D 22	D 22 to D 25	D 25 to D 28
3	1.373	1.309	1.340
6	1.343	1.332	1.332
9	1.075	1.091	1.178
10	1.243	1.174	1.214
14	1.340	1.163	1.234
MEAN :	1.275	1.214	1.260
S.E.M. :	0.0546	0.0460	0.0325

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : HEMATOLOGY

SERIES : CONTROLS

DOSE : 0 mg/kg P.O.

ANIMAL	ERYTHROCYTES	HEMOGLOBIN	HEMATOCRIT	V.G.M.	C.G.M.
S 2460	8.10	9.9	0.43	53.09	23.02
S 2482	8.40	11.1	0.46	54.76	24.13
S 2458	8.25	10.7	0.46	55.76	23.26
S 2474	8.50	11.1	0.46	54.12	24.13
S 2465	8.35	11.1	0.47	56.29	23.62
S 2477	9.10	11.4	0.48	52.75	23.75
S 2473	8.85	11.3	0.48	54.24	23.54
S 2485	7.75	10.2	0.46	59.35	22.17
S 2457	8.70	10.3	0.45	51.72	22.89
S 2478	7.75	10.7	0.46	59.35	23.26
MEAN :	8.38	10.8	0.46	55.14	23.38
S.E.M. :	0.139	0.16	0.005	0.822	0.188

ANIMAL	LEUCOCYTES	NEUTROPH.	EOSINOPH.	BASOPH.	LYMPHOCYTES
S 2460	11.26	6.0	0.0	0.0	93.0
S 2482	9.58	11.0	0.0	0.0	88.0
S 2458	12.82	12.0	1.0	0.0	86.0
S 2474	15.59	11.0	0.0	0.0	89.0
S 2465	13.38	9.0	0.0	0.0	90.0
S 2477	12.47	5.0	0.0	0.0	95.0
S 2473	13.61	6.0	2.0	0.0	91.0
S 2485	8.41	8.0	0.0	0.0	95.0
S 2457	7.89	9.0	2.0	0.0	89.0
S 2478	8.13	9.0	0.0	0.0	91.0
MEAN :	11.31	8.6	0.5	0.0	90.7
S.E.M. :	0.848	0.75	0.27	0.00	0.93

ANIMAL	MONOCYTES	THROMBOCYTES
S 2460	1.0	771
S 2482	1.0	624
S 2458	1.0	739
S 2474	0.0	662
S 2465	1.0	755
S 2477	0.0	880
S 2473	1.0	808
S 2485	2.0	566
S 2457	0.0	507
S 2478	0.0	602
MEAN :	0.7	691
S.E.M. :	0.21	37.3

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : HEMATOLOGY

SERIES : ROVOL V : 38.8

DOSE : 38.8 mg/kg P.O.

ANIMAL :	ERYTHROCYTES	HEMOGLOBIN	HEMATOCRIT	V.G.M.	C.G.M.
S 2476	7.08	9.4	0.42	59.32	22.38
S 2480	8.85	11.5	0.48	54.24	23.96
S 2483	8.75	10.9	0.46	52.57	23.70
S 2484	8.75	11.4	0.49	56.00	23.27
S 2466	7.75	10.5	0.45	58.06	23.33
S 2475	8.75	10.2	0.46	52.57	22.17
S 2467	8.40	11.2	0.48	57.14	23.33
S 2481	8.50	11.2	0.48	56.47	23.33
S 2471	8.25	10.9	0.47	56.97	23.19
S 2479	8.05	11.4	0.46	57.14	24.78
MEAN :	8.31	10.9	0.47	56.05	23.34
S.E.M. :	0.177	0.21	0.006	0.712	0.233

ANIMAL :	LEUCOCYTES	NEUTROPH.	EOSINOPH.	BASOPH.	LYMPHOCYTES
S 2476	10.14	8.0	0.0	0.0	92.0
S 2480	18.49	7.0	0.0	0.0	91.0
S 2483	8.63	19.0	2.0	0.0	79.9
S 2484	11.65	11.0	1.0	0.0	87.0
S 2466	13.97	24.0	0.0	0.0	75.0
S 2475	11.78	10.0	0.0	0.0	89.0
S 2467	14.36	8.0	0.0	0.0	91.0
S 2481	10.12	6.0	0.0	0.0	94.0
S 2471	11.09	7.0	1.0	0.0	91.0
S 2479	16.88	8.0	1.0	0.0	89.0
MEAN :	12.71	10.8	0.5	0.0	87.8
S.E.M. :	0.998	1.88	0.22	0.00	1.92

ANIMAL :	MONOCYTES	THROMBOCYTES
S 2476	0.0	658
S 2480	2.0	785
S 2483	0.0	685
S 2484	1.0	698
S 2466	1.0	673
S 2475	1.0	726
S 2467	1.0	533
S 2481	0.0	652
S 2471	1.0	617
S 2479	2.0	683
MEAN :	0.9	671
S.E.M. :	0.23	21.0

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : HEMATOLOGY

SERIES : ROVOL V : 155.2

DOSE : 155.2 mg/kg P.O.

ANIMAL	ERYTHROCYTES	HEMOGLOBIN	HEMATOCRIT	V.G.M.	C.G.M.
S 2463	8.40	10.9	0.46	54.76	23.70
S 2468	9.10	11.2	0.48	52.75	23.33
S 2461	7.80	10.7	0.46	58.97	23.26
S 2469	8.35	10.7	0.45	53.89	23.78
S 2486	8.35	11.4	0.48	57.49	23.75
S 2487	8.25	11.0	0.47	56.97	23.40
S 2459	7.70	10.0	0.44	57.14	22.73
S 2472	8.15	10.5	0.46	56.44	22.83
S 2462	8.35	11.2	0.49	58.68	22.86
S 2470	7.65	10.4	0.47	61.44	22.13
MEAN :	8.21	10.8	0.47	56.85	23.18
S.E.M. :	0.135	0.13	0.005	0.813	0.169

ANIMAL	LEUCOCYTES	NEUTROPH.	EOSINOPH.	BASOPH.	LYMPHOCYTES
S 2463	7.79	17.0	0.0	0.0	81.0
S 2468	8.36	27.0	3.0	0.0	68.0
S 2461	11.30	11.0	0.0	0.0	89.0
S 2469	13.95	7.0	0.0	0.0	93.0
S 2486	11.36	8.0	1.0	0.0	90.0
S 2487	11.67	9.0	0.0	0.0	91.0
S 2459	10.29	9.0	1.0	0.0	90.0
S 2472	14.29	9.0	1.0	0.0	89.0
S 2462	11.15	21.0	2.0	0.0	76.0
S 2470	11.71	9.0	1.0	0.0	89.0
MEAN :	11.19	12.7	0.9	0.0	85.6
S.E.M. :	0.651	2.12	0.31	0.00	2.54

ANIMAL	MONOCYTES	THROMBOCYTES
S 2463	2.0	720
S 2468	2.0	659
S 2461	0.0	756
S 2469	0.0	815
S 2486	1.0	564
S 2487	0.0	520
S 2459	0.0	674
S 2472	1.0	588
S 2462	1.0	610
S 2470	1.0	520
MEAN :	0.8	643
S.E.M. :	0.25	31.6

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : BIOCHEMICAL DATA

SERIES : CONTROLS

DOSE : 0 mg/kg P.O.

ANIMAL :	CHOLESTER.	TRIGLYCER.	PROTEINS	CALCIUM	OSMOLARITY
S 2460	2.17	0.56	63.4	2.84	1645
S 2482	2.36	1.33	67.9	2.72	1195
S 2458	2.28	0.57	71.3	2.77	1560
S 2474	2.25	0.49	67.5	2.83	2050
S 2465	2.50	1.23	64.9	2.58	1045
S 2477	1.48	1.11	70.3	2.70	1685
S 2473	2.72	0.71	70.3	2.96	1320
S 2485	2.21	0.81	64.1	2.80	1155
S 2457	2.25	1.02	68.4	2.96	1260
S 2478	2.28	0.95	67.5	2.84	1195
MEAN :	2.25	0.88	67.6	2.80	1411
S.E.M. :	0.100	0.093	0.86	0.037	99.1

ANIMAL :	URI. CREAT.	SERUM CREAT.	CREA. CLEAR.	UREA	BILIRUBIN
S 2460	12.5	70.8	0.741	6.38	6.70
S 2482	10.3	77.4	1.082	6.69	5.60
S 2458	11.4	84.1	0.650	6.81	5.90
S 2474	17.6	68.6	1.020	7.01	4.10
S 2465	7.6	66.4	0.755	6.38	4.40
S 2477	14.0	68.6	0.815	5.98	4.80
S 2473	11.1	73.0	1.206	7.87	4.40
S 2485	9.2	70.8	0.778	7.17	5.60
S 2457	9.7	66.4	0.989	4.92	5.20
S 2478	8.7	64.2	1.291	5.20	5.20
MEAN :	11.2	71.0	0.933	6.44	5.19
S.E.M. :	0.92	1.88	0.0685	0.282	0.252

ANIMAL :	SGOT	SGPT	AL. PHOSPH.
S 2460	50.4	13.4	185
S 2482	56.6	13.4	175
S 2458	73.1	24.7	167
S 2474	64.9	16.0	199
S 2465	52.5	34.0	175
S 2477	60.7	18.0	206
S 2473	69.0	27.3	174
S 2485	58.7	17.5	215
S 2457	57.7	18.5	189
S 2478	67.9	21.6	203
MEAN :	61.2	20.4	189
S.E.M. :	2.34	2.08	5.1

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : BIOCHEMICAL DATA

SERIES : ROVOL V : 38.8

DOSE : 38.8 mg/kg P.O.

ANIMAL :	CHOLESTER.	TRIGLYCER.	PROTEINS	CALCIUM	OSMOLARITY
S 2476	2.14	0.43	65.6	2.46	1320
S 2480	3.43	0.87	75.4	3.00	1045
S 2483	2.36	0.70	67.1	2.79	1280
S 2484	2.76	0.54	71.6	2.87	1685
S 2466	2.39	0.77	60.9	2.72	1295
S 2475	2.12	0.62	69.8	2.67	1110
S 2467	2.63	0.62	66.6	2.77	1575
S 2481	2.28	0.56	68.1	2.83	1575
S 2471	3.23	1.23	69.4	2.87	1710
S 2479	2.56	0.87	66.8	2.74	1665
MEAN :	2.59	0.72	68.1	2.77	1426
S.E.M. :	0.140	0.072	1.22	0.046	77.7

ANIMAL :	URI. CREAT.	SERUM CREAT.	CREA. CLEAR.	UREA	BILIRUBIN
S 2476	8.8	68.6	1.171	6.30	5.20
S 2480	6.8	73.0	0.671	5.24	4.40
S 2483	10.7	79.7	0.855	5.51	5.20
S 2484	14.5	66.4	2.926	6.38	5.60
S 2466	10.3	73.0	0.705	5.59	4.40
S 2475	7.5	84.1	0.396	8.66	5.60
S 2467	13.1	77.4	1.141	7.95	5.20
S 2481	12.7	77.4	1.364	5.04	4.40
S 2471	12.1	59.7	1.884	6.22	4.80
S 2479	11.9	59.7	1.560	5.75	4.80
MEAN :	10.8	71.9	1.267	6.26	4.96
S.E.M. :	0.79	2.61	0.2322	0.372	0.148

ANIMAL :	SGOT	SGPT	AL. PHOSPH.
S 2476	63.8	19.6	158
S 2480	53.5	17.5	195
S 2483	80.3	27.3	140
S 2484	64.9	27.3	189
S 2466	59.7	22.1	173
S 2475	58.7	45.3	171
S 2467	63.8	20.6	103
S 2481	60.7	41.2	171
S 2471	57.7	24.2	178
S 2479	61.8	21.6	203
MEAN :	62.5	26.7	168
S.E.M. :	2.25	2.95	9.2

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : BIOCHEMICAL DATA

SERIES : ROVOL V : 155.2

DOSE : 155.2 mg/kg P.O.

ANIMAL :	CHOLESTER.	TRIGLYCER.	PROTEINS	CALCIUM	OSMOLARITY
S 2463	2.28	0.99	64.9	2.77	1155
S 2468	2.65	0.56	70.9	2.94	1340
S 2461	2.87	0.68	71.8	3.04	1485
S 2469	3.54	0.52	70.3	2.99	1130
S 2486	2.39	1.07	68.6	2.83	1600
S 2487	2.10	1.02	69.4	2.71	2010
S 2459	2.61	0.55	67.5	2.74	1450
S 2472	2.48	0.75	72.2	3.01	1485
S 2462	2.94	1.26	68.4	2.99	1340
S 2470	2.25	0.92	71.3	2.85	1285
MEAN :	2.61	0.83	69.5	2.89	1428
S.E.M. :	0.134	0.081	0.71	0.039	79.9

ANIMAL :	URI CREAT.	SERUM CREAT.	CREA CLEAR.	UREA	BILIRUBIN
S 2463	8.5	68.6	0.986	5.71	4.80
S 2468	9.9	70.8	1.302	7.32	3.70
S 2461	11.3	75.2	0.985	6.54	5.20
S 2469	6.4	66.4	0.449	7.44	5.20
S 2486	12.4	70.8	1.284	4.92	4.10
S 2487	15.7	70.8	2.536	6.57	4.40
S 2459	11.1	79.7	0.722	6.93	4.10
S 2472	11.5	73.0	0.724	6.61	4.80
S 2462	9.1	77.4	0.681	6.65	5.20
S 2470	8.0	66.4	0.912	7.24	5.90
MEAN :	10.4	71.9	1.058	6.59	4.74
S.E.M. :	0.83	1.41	0.1845	0.244	0.211

ANIMAL :	SGOT	SGPT	AL. PHOSPH.
S 2463	150.3	54.0	213
S 2468	112.2	49.4	158
S 2461	51.5	23.2	132
S 2469	56.6	23.7	167
S 2486	58.7	23.7	182
S 2487	62.8	21.1	203
S 2459	69.0	31.9	213
S 2472	66.9	33.5	188
S 2462	63.8	28.3	121
S 2470	49.4	21.6	119
MEAN :	74.1	31.0	170
S.E.M. :	10.13	3.71	11.5

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : URINARY EXCRETION

SERIES : CONTROLS

DOSE : 0 mg/kg P.O.

ANIMAL :	EXC. VOL. 4 H	% EXC. 4 H	EXC. VOL. 7 H	% EXC. 7 H	VOL. 7-24 H
S 2460	9.0	84.10	13.4	125.20	4.2
S 2482	11.0	91.70	13.2	110.00	8.2
S 2458	12.0	100.80	14.0	117.60	4.8
S 2474	13.0	113.00	15.0	130.40	4.0
S 2465	13.0	100.80	17.2	133.30	6.6
S 2477	11.0	100.00	13.2	120.00	4.0
S 2473	10.0	80.00	12.6	100.80	8.0
S 2485	11.0	96.50	12.6	110.50	6.0
S 2457	11.0	88.70	13.4	108.10	6.8
S 2478	14.0	105.30	14.6	109.80	9.6
MEAN :	11.5	96.09	13.9	116.57	6.2
S.E.M. :	0.48	3.175	0.44	3.341	0.62

ANIMAL :	EXC. VOL. 24 H	PH
S 2460	17.6	7.00
S 2482	21.4	7.50
S 2458	18.8	7.50
S 2474	19.0	6.50
S 2465	23.8	8.00
S 2477	17.2	6.50
S 2473	20.6	7.00
S 2485	18.6	7.00
S 2457	20.2	7.00
S 2478	24.4	7.00
MEAN :	20.2	7.10
S.E.M. :	0.77	0.145

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : URINARY EXCRETION

SERIES : ROVOL V : 38.8

DOSE : 38.8 mg/kg P.O.

ANIMAL :	EXC. VOL. 4 H	% EXC. 4 H	EXC. VOL. 7 H	% EXC. 7 H	VOL. 7-24 H
S 2476	8.0	76.20	9.6	91.40	8.0
S 2480	7.0	61.90	9.8	86.70	9.4
S 2483	7.0	59.30	8.0	67.80	6.6
S 2484	11.0	101.90	12.8	118.50	4.6
S 2466	11.0	94.00	12.8	109.40	7.4
S 2475	9.0	78.30	10.8	93.90	11.6
S 2467	10.0	87.70	10.4	91.20	5.2
S 2481	10.0	93.50	11.6	108.40	4.6
S 2471	12.0	99.20	14.0	115.70	5.8
S 2479	13.0	96.30	16.4	121.50	7.6
MEAN :	9.8	84.83	11.6	100.45	7.1
S.E.M. :	0.65	4.821	0.77	5.385	0.71

ANIMAL :	EXC. VOL. 24 H	PH
S 2476	17.6	6.50
S 2480	19.2	7.00
S 2483	14.6	6.00
S 2484	17.4	7.00
S 2466	20.2	7.00
S 2475	22.4	7.00
S 2467	15.6	7.00
S 2481	16.2	7.00
S 2471	19.8	6.50
S 2479	24.0	6.00
MEAN :	18.7	6.70
S.E.M. :	0.95	0.133

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : URINARY EXCRETION

SERIES : ROVOL V : 155.2

DOSE : 155.2 mg/kg P.O.

ANIMAL :	EXC. VOL. 4 H	% EXC. 4 H	EXC. VOL. 7 H	% EXC. 7 H	VOL. 7-24 H
S 2463	10.0	90.10	12.0	108.10	9.2
S 2468	8.0	72.20	11.6	110.50	7.2
S 2461	10.0	92.60	10.0	96.60	6.4
S 2469	9.0	72.60	14.2	114.50	13.6
S 2486	4.0	34.80	7.0	60.90	5.0
S 2487	10.0	80.00	11.6	92.80	4.4
S 2459	12.0	91.60	14.8	113.00	6.8
S 2472	14.0	102.20	15.0	109.50	8.4
S 2462	10.0	84.70	11.8	100.00	9.4
S 2470	11.0	95.70	14.4	125.20	7.9
MEAN :	9.8	81.65	12.2	103.11	7.8
S.E.M. :	0.83	6.044	0.79	5.554	0.82

ANIMAL :	EXC. VOL. 24 H	PH
S 2463	21.2	7.50
S 2468	18.8	6.50
S 2461	16.4	6.50
S 2469	27.8	6.50
S 2486	12.0	6.50
S 2487	16.0	6.00
S 2459	21.6	6.00
S 2472	23.4	6.00
S 2462	21.2	6.00
S 2470	22.2	6.50
MEAN :	20.1	6.40
S.E.M. :	1.40	0.145

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : ORGAN WEIGHT

SERIES : CONTROLS

DOSE : 0 mg/kg P.O.

ANIMAL :	KIDNEYS	TESTICLES	ADRENALS	LIVER	HEART
S 2460	2.475	3.294	57.00	10.58	1.056
S 2482	2.986	3.414	62.00	11.70	1.108
S 2458	2.837	3.415	64.00	12.43	1.089
S 2474	2.750	3.460	73.00	9.98	1.100
S 2465	3.120	3.481	60.00	13.07	1.458
S 2477	3.052	3.668	71.00	11.00	1.209
S 2473	2.905	3.556	74.00	10.98	1.254
S 2485	2.930	3.602	82.00	11.18	1.124
S 2457	2.975	3.933	70.00	12.12	1.161
S 2478	3.124	3.801	77.00	13.65	1.161
MEAN :	2.915	3.562	69.00	11.67	1.172
S.E.M. :	0.0615	0.0615	2.534	0.363	0.0368

ANIMAL :	THYMUS	SPLEEN	BRAIN
S 2460	566.0	633.0	1.453
S 2482	677.0	554.0	1.478
S 2458	765.0	779.0	1.471
S 2474	753.0	746.0	1.377
S 2465	795.0	840.0	1.570
S 2477	585.0	864.0	1.401
S 2473	738.0	701.0	1.509
S 2485	637.0	629.0	1.417
S 2457	694.0	738.0	1.515
S 2478	734.0	848.0	1.433
MEAN :	694.4	733.2	1.462
S.E.M. :	24.51	33.00	0.0185

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : ORGAN WEIGHT

SERIES : ROVOL V : 38.8

DOSE : 38.8 mg/kg P.O.

ANIMAL	KIDNEYS	TESTICLES	ADRENALS	LIVER	HEART
S 2476	2.291	3.725	62.00	10.13	1.017
S 2480	2.631	3.793	57.00	11.20	1.056
S 2483	2.712	3.784	65.00	11.32	1.026
S 2484	2.730	3.396	82.00	10.68	1.053
S 2466	2.903	3.425	65.00	11.05	1.065
S 2475	2.866	3.700	77.00	12.02	1.133
S 2467	2.469	3.268	70.00	10.16	1.064
S 2481	2.505	3.708	72.00	10.24	1.004
S 2471	2.964	3.858	79.00	11.73	1.196
S 2479	3.478	4.595	81.00	14.71	1.382
MEAN :	2.755	3.725	71.00	11.33	1.100
S.E.M. :	0.1042	0.1150	2.733	0.429	0.0362

ANIMAL	THYMUS	SPLEEN	BRAIN
S 2476	793.0	699.0	1.392
S 2480	730.0	568.0	1.417
S 2483	799.0	922.0	1.450
S 2484	663.0	695.0	1.392
S 2466	838.0	1026.0	1.425
S 2475	983.0	869.0	1.437
S 2467	790.0	600.0	1.583
S 2481	625.0	598.0	1.464
S 2471	991.0	703.0	1.457
S 2479	376.0	1006.0	1.606
MEAN :	758.8	768.6	1.462
S.E.M. :	56.63	54.63	0.0234

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
MALE RAT : ORGAN WEIGHT

SERIES : ROVOL V : 155.2

DOSE : 155.2 mg/kg P.O.

ANIMAL :	KIDNEYS	TESTICLES	ADRENALS	LIVER	HEART
S 2463	2.628	3.437	69.00	11.28	1.172
S 2468	2.693	3.335	65.00	11.14	1.137
S 2461	2.436	3.375	55.00	10.73	1.094
S 2469	2.790	4.085	85.00	13.02	1.340
S 2486	2.805	3.575	65.00	11.88	1.135
S 2487	3.093	3.702	83.00	13.02	1.329
S 2459	2.874	3.671	77.00	14.98	1.234
S 2472	3.134	3.591	93.00	15.44	1.326
S 2462	2.704	3.696	81.00	13.74	1.343
S 2470	2.528	3.656	82.00	12.43	1.219
MEAN :	2.769	3.612	75.50	12.77	1.233
S.E.M. :	0.0707	0.0675	3.667	0.505	0.0305

ANIMAL :	THYMUS	SPLEEN	BRAIN
S 2463	740.0	808.0	1.537
S 2468	449.0	559.0	1.423
S 2461	619.0	726.0	1.363
S 2469	1152.0	1029.0	1.447
S 2486	738.0	810.0	1.420
S 2487	959.0	869.0	1.509
S 2459	877.0	1017.0	1.424
S 2472	956.0	1091.0	1.358
S 2462	634.0	907.0	1.344
S 2470	829.0	743.0	1.519
MEAN :	795.3	855.9	1.434
S.E.M. :	64.21	51.22	0.0218

FEMALE RATS

APPENDIX A 58 to A 84

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WEIGHT EVOLUTION

SERIES : CONTROLS

DOSE : 0 mg/kg P.O.

ANIMAL :	D 1	D 5	D 8	D 12	D 15
S 2490	145	161	177	195	206
S 2510	147	168	179	193	203
S 2498	154	173	186	202	215
S 2515	153	178	192	211	218
S 2511	155	173	191	210	225
S 2518	154	172	191	213	221
S 2497	156	177	189	209	218
S 2505	156	176	189	212	231
S 2488	162	182	201	224	236
S 2501	161	182	195	214	224
MEAN :	154	174	189	208	220
S.E.M. :	1.7	2.0	2.2	2.9	3.2

ANIMAL :	D 19	D 22	D 26	D 28	D 29
S 2490	224	227	239	241	218
S 2510	214	217	229	234	216
S 2498	233	244	257	249	228
S 2515	233	229	242	254	228
S 2511	239	248	257	264	237
S 2518	233	241	250	257	230
S 2497	234	242	251	261	234
S 2505	254	266	279	268	243
S 2488	254	263	277	284	254
S 2501	243	244	258	265	240
MEAN :	236	242	254	258	233
S.E.M. :	3.9	4.8	5.0	4.5	3.6

ANIMAL :	D 28 - D 1
S 2490	96
S 2510	87
S 2498	95
S 2515	101
S 2511	109
S 2518	103
S 2497	105
S 2505	112
S 2488	122
S 2501	104
MEAN :	103
S.E.M. :	3.1

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WEIGHT EVOLUTION

SERIES : ROVOL V : 38.8

DOSE : 38.8 mg/kg P.O.

ANIMAL :	D 1	D 5	D 8	D 12	D 15
S 2504	144	163	172	187	208
S 2516	148	169	178	194	210
S 2491	152	177	188	207	217
S 2494	154	176	197	217	231
S 2492	155	180	195	214	232
S 2499	154	181	193	209	218
S 2507	157	184	193	198	214
S 2514	155	178	197	220	234
S 2506	159	178	194	215	220
S 2509	172	188	200	218	233
MEAN :	155	177	191	208	222
S.E.M. :	2.3	2.3	2.8	3.6	3.2

ANIMAL :	D 19	D 22	D 26	D 28	D 29
S 2504	221	223	227	234	213
S 2516	225	226	236	249	223
S 2491	237	245	258	263	234
S 2494	246	258	275	268	244
S 2492	261	282	285	283	264
S 2499	244	254	262	272	249
S 2507	224	246	256	263	233
S 2514	258	270	300	300	270
S 2506	244	240	252	267	240
S 2509	252	259	275	279	249
MEAN :	241	250	263	268	242
S.E.M. :	4.5	5.8	7.0	5.7	5.5

ANIMAL :	D 28	D 1
S 2504	90	
S 2516	101	
S 2491	111	
S 2494	114	
S 2492	128	
S 2499	118	
S 2507	106	
S 2514	145	
S 2506	108	
S 2509	107	
MEAN :	113	
S.E.M. :	4.8	

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WEIGHT EVOLUTION

SERIES : ROVOL V : 155.2

DOSE : 155.2 mg/kg P.O.

ANIMAL :	D 1	D 5	D 8	D 12	D 15
S 2489	145	167	181	201	215
S 2517	146	162	179	197	212
S 2493	154	180	194	206	220
S 2495	152	179	192	214	229
S 2503	154	179	198	225	233
S 2519	154	180	196	216	234
S 2502	159	179	195	219	236
S 2512	155	180	199	213	232
S 2496	160	179	194	229	239
S 2508	162	182	197	229	247
MEAN :	154	177	193	215	230
S.E.M. :	1.7	2.1	2.2	3.5	3.5

ANIMAL :	D 19	D 22	D 26	D 28	D 29
S 2489	229	235	251	255	232
S 2517	236	230	242	251	225
S 2493	249	261	264	258	239
S 2495	243	253	273	284	257
S 2503	250	275	297	294	266
S 2519	264	273	291	290	260
S 2502	240	251	258	261	236
S 2512	254	276	276	284	259
S 2496	248	267	290	295	265
S 2508	257	258	278	286	252
MEAN :	247	258	272	276	249
S.E.M. :	3.3	5.1	5.7	5.5	4.7

ANIMAL :	D 28	D 1
S 2489	110	
S 2517	105	
S 2493	104	
S 2495	132	
S 2503	140	
S 2519	136	
S 2502	102	
S 2512	129	
S 2496	135	
S 2508	124	
MEAN :	122	
S.E.M. :	4.7	

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WEIGHT EVOLUTION

SERIES : CONTROLS

DOSE : 0 mg/kg P.O.

ANIMAL :	D 1 to D 5	D 5 to D 8	D 8 to D 12	D 12 to D 15	D 15 to D 19
S 2490	16.0	16.0	18.0	11.0	18.0
S 2510	21.0	11.0	14.0	10.0	11.0
S 2498	19.0	13.0	16.0	13.0	18.0
S 2515	25.0	14.0	19.0	7.0	15.0
S 2511	18.0	18.0	19.0	15.0	14.0
S 2518	18.0	19.0	22.0	8.0	12.0
S 2497	21.0	12.0	20.0	9.0	16.0
S 2505	20.0	13.0	23.0	19.0	23.0
S 2488	20.0	19.0	23.0	12.0	18.0
S 2501	21.0	13.0	19.0	10.0	19.0
MEAN :	19.9	14.8	19.3	11.4	16.4
S.E.M. :	0.77	0.94	0.92	1.13	1.13

ANIMAL :	D 19 to D 22	D 22 to D 26	D 26 to D 28
S 2490	3.0	12.0	2.0
S 2510	3.0	12.0	5.0
S 2498	11.0	13.0	-8.0
S 2515	-4.0	13.0	12.0
S 2511	9.0	9.0	7.0
S 2518	8.0	9.0	7.0
S 2497	8.0	9.0	10.0
S 2505	12.0	13.0	-11.0
S 2488	9.0	14.0	7.0
S 2501	1.0	14.0	7.0
MEAN :	6.0	11.8	3.8
S.E.M. :	1.60	0.65	2.38

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WEIGHT EVOLUTION

SERIES : ROVOL V : 38.8

DOSE : 38.8 mg/kg P.O.

ANIMAL :	D 1 to D 5	D 5 to D 8	D 8 to D 12	D 12 to D 15	D 15 to D 19
S 2504	19.0	9.0	15.0	21.0	13.0
S 2516	21.0	9.0	16.0	16.0	15.0
S 2491	25.0	11.0	19.0	10.0	20.0
S 2494	22.0	21.0	20.0	14.0	15.0
S 2492	25.0	15.0	19.0	18.0	29.0
S 2499	27.0	12.0	16.0	9.0	26.0
S 2507	27.0	9.0	5.0	16.0	10.0
S 2514	23.0	19.0	23.0	14.0	24.0
S 2506	19.0	16.0	21.0	5.0	24.0
S 2509	16.0	12.0	18.0	15.0	19.0
MEAN :	22.4	13.3	17.2	13.8	19.5
S.E.M. :	1.17	1.36	1.56	1.47	1.96

ANIMAL :	D 19 to D 22	D 22 to D 26	D 26 to D 28
S 2504	2.0	4.0	7.0
S 2516	1.0	10.0	13.0
S 2491	8.0	13.0	5.0
S 2494	12.0	17.0	-7.0
S 2492	21.0	3.0	-2.0
S 2499	10.0	8.0	10.0
S 2507	22.0	10.0	7.0
S 2514	12.0	30.0	0.0
S 2506	-4.0	12.0	15.0
S 2509	7.0	16.0	4.0
MEAN :	9.1	12.3	5.2
S.E.M. :	2.62	2.44	2.15

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WEIGHT EVOLUTION

SERIES : ROVOL V : 155.2

DOSE : 155.2 mg/kg P.O.

ANIMAL :	D 1 to D 5	D 5 to D 8	D 8 to D 12	D 12 to D 15	D 15 to D 19
S 2489	22.0	14.0	20.0	14.0	14.0
S 2517	16.0	17.0	18.0	15.0	24.0
S 2493	26.0	14.0	12.0	14.0	29.0
S 2495	27.0	13.0	22.0	15.0	14.0
S 2503	25.0	19.0	27.0	8.0	17.0
S 2519	26.0	16.0	20.0	18.0	30.0
S 2502	20.0	16.0	24.0	17.0	4.0
S 2512	25.0	19.0	14.0	19.0	22.0
S 2496	19.0	15.0	35.0	10.0	9.0
S 2508	20.0	15.0	32.0	18.0	10.0
MEAN :	22.6	15.8	22.4	14.8	17.3
S.E.M. :	1.18	0.65	2.32	1.12	2.76

ANIMAL :	D 19 to D 22	D 22 to D 26	D 26 to D 28
S 2489	6.0	16.0	4.0
S 2517	-6.0	12.0	9.0
S 2493	12.0	3.0	-6.0
S 2495	10.0	20.0	11.0
S 2503	25.0	22.0	-3.0
S 2519	9.0	18.0	-1.0
S 2502	11.0	7.0	3.0
S 2512	22.0	0.0	8.0
S 2496	19.0	23.0	5.0
S 2508	1.0	20.0	8.0
MEAN :	10.9	14.1	3.8
S.E.M. :	2.98	2.60	1.77

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : FOOD INTAKE (g/d/rat)

SERIES : Controls

DOSE : 0 mg/kg P.O.

CAGE :	D 1 to D 5	D 5 to D 8	D 8 to D 12	D 12 to D 15	D 15 to D 19
3	19.50	19.70	19.30	20.30	22.00
5	20.80	20.70	19.40	21.00	22.00
7	21.30	21.80	22.00	22.80	24.10
10	21.50	22.20	22.30	23.20	24.40
14	21.50	22.00	23.00	21.80	24.80
MEAN :	20.92	21.28	21.20	21.82	23.46
S.E.M. :	0.377	0.473	0.773	0.541	0.606

CAGE :	D 19 to D 22	D 22 to D 26	D 26 to D 28
3	21.00	21.40	21.50
5	21.50	22.10	20.30
7	24.70	22.90	23.30
10	22.50	24.50	22.50
14	23.70	23.90	23.50
MEAN :	22.68	22.96	22.22
S.E.M. :	0.684	0.567	0.595

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : FOOD INTAKE (g/d/rat)

SERIES : ROVOL V : 38.8

DOSE : 38.8 mg/kg P.O.

CAGE :	D 1 to D 5	D 5 to D 8	D 8 to D 12	D 12 to D 15	D 15 to D 19
1	19.60	19.00	19.00	22.70	22.10
6	22.60	22.70	23.00	24.00	25.80
8	22.50	22.20	21.10	23.50	26.00
12	22.40	21.20	21.90	21.80	24.60
15	21.10	21.20	21.90	20.80	24.50
MEAN :	21.64	21.26	21.38	22.56	24.60
S.E.M. :	0.578	0.635	0.667	0.577	0.695

CAGE :	D 19 to D 22	D 22 to D 26	D 26 to D 28
1	20.50	20.90	22.50
6	26.30	25.10	21.80
8	26.70	23.80	22.30
12	25.70	25.10	24.80
15	22.70	23.80	24.00
MEAN :	24.38	23.74	23.08
S.E.M. :	1.198	0.767	0.565

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : FOOD INTAKE (g/d/rat)

SERIES : ROVOL V : 155.2

DOSE : 155.2 mg/kg P.O.

CAGE :	D 1 to D 5	D 5 to D 8	D 8 to D 12	D 12 to D 15	D 15 to D 19
2	19.80	20.30	21.50	21.70	22.30
4	21.90	21.30	22.90	23.00	24.50
9	21.50	22.20	24.60	24.50	25.80
11	21.10	22.70	23.40	23.00	23.50
13	21.50	22.20	24.50	25.50	23.40
MEAN :	21.16	21.74	23.38	23.54	23.90
S.E.M. :	0.363	0.425	0.570	0.661	0.589

CAGE :	D 19 to D 22	D 22 to D 26	D 26 to D 28
2	21.00	20.00	20.30
4	25.80	22.40	21.50
9	25.00	28.00	22.50
11	23.30	19.40	19.50
13	24.80	26.40	25.50
MEAN :	23.98	23.24	21.86
S.E.M. :	0.848	1.712	1.044

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WATER INTAKE (ml/d/rat)

SERIES : CONTROLS

DOSE : 0 mg/kg P.O.

CAGE :	D 1 to D 5	D 5 to D 8	D 8 to D 12	D 12 to D 15	D 15 to D 19
3	24.50	22.70	23.30	23.00	27.30
5	30.10	27.80	29.30	26.50	29.80
7	24.40	24.00	24.80	25.70	26.00
10	25.30	25.70	29.50	30.50	31.50
14	22.30	23.30	23.60	21.80	25.50
MEAN :	25.32	24.70	26.10	25.50	28.02
S.E.M. :	1.294	0.924	1.371	1.516	1.145

CAGE :	D 19 to D 22	D 22 to D 26	D 26 to D 28
3	25.00	25.60	25.30
5	25.70	30.00	27.50
7	24.70	24.60	25.80
10	29.00	36.10	28.00
14	23.80	25.30	26.00
MEAN :	25.64	28.32	26.52
S.E.M. :	0.894	2.165	0.521

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WATER INTAKE (ml/d/rat)

SERIES : ROVOL V : 38.8

DOSE : 38.8 mg/kg P.O.

CAGE :	D 1 to D 5	D 5 to D 8	D 8 to D 12	D 12 to D 15	D 15 to D 19
1	26.60	22.70	26.30	28.70	28.90
6	26.60	26.80	28.10	30.30	33.50
8	28.30	25.30	26.80	29.20	33.60
12	27.50	24.70	26.30	28.20	29.00
15	24.80	24.20	29.30	26.20	30.60
MEAN :	26.76	24.74	27.36	28.52	31.12
S.E.M. :	0.584	0.671	0.586	0.676	1.037

CAGE :	D 19 to D 22	D 22 to D 26	D 26 to D 28
1	26.70	29.30	32.50
6	30.00	33.90	29.30
8	32.80	29.90	27.50
12	30.00	31.30	28.50
15	29.70	32.90	33.50
MEAN :	29.84	31.46	30.26
S.E.M. :	0.967	0.870	1.165

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WATER INTAKE (ml/d/rat)

SERIES : ROVOL V : 155.2

DOSE : 155.2 mg/kg P.O.

CAGE :	D 1 to D 5	D 5 to D 8	D 8 to D 12	D 12 to D 15	D 15 to D 19
2	25.60	25.80	26.40	27.30	29.80
4	27.80	28.00	30.90	30.30	30.40
8	25.90	26.00	27.90	28.00	31.80
9	24.10	26.20	23.40	24.70	23.30
11	30.00	29.50	34.90	33.80	31.30
MEAN :	26.68	27.10	28.70	28.82	29.32
S.E.M. :	1.018	0.717	1.966	1.532	1.544

CAGE :	D 19 to D 22	D 22 to D 26	D 26 to D 28
2	24.70	26.40	27.50
4	31.70	28.50	26.50
8	32.20	35.50	26.30
9	24.70	20.00	20.30
11	32.70	36.60	32.50
MEAN :	29.20	29.40	26.62
S.E.M. :	1.844	3.060	1.942

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WATER FOOD RATIO

SERIES : CONTROLS

DOSE : 0 mg/kg P.O.

CAGE :	D 1 to D 5	D 5 to D 8	D 8 to D 12	D 12 to D 15	D 15 to D 19
3	1.256	1.152	1.207	1.133	1.241
5	1.447	1.343	1.510	1.262	1.355
7	1.146	1.101	1.127	1.127	1.079
10	1.177	1.158	1.323	1.315	1.291
14	1.037	1.059	1.026	1.000	1.028
MEAN :	1.213	1.163	1.239	1.167	1.199
S.E.M. :	0.0684	0.0486	0.0835	0.0554	0.0625

CAGE :	D 19 to D 22	D 22 to D 26	D 26 to D 28
3	1.190	1.196	1.177
5	1.195	1.357	1.355
7	1.000	1.074	1.107
10	1.289	1.473	1.244
14	1.004	1.059	1.106
MEAN :	1.136	1.232	1.198
S.E.M. :	0.0573	0.0807	0.0468

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WATER FOOD RATIO

SERIES : ROVOL V : 38.8

DOSE : 38.8 mg/kg P.O.

CAGE :	D 1 to D 5	D 5 to D 8	D 8 to D 12	D 12 to D 15	D 15 to D 19
1	1.357	1.195	1.384	1.264	1.308
6	1.177	1.181	1.222	1.263	1.298
8	1.258	1.140	1.270	1.243	1.292
12	1.228	1.165	1.201	1.294	1.179
15	1.175	1.142	1.338	1.260	1.249
MEAN :	1.239	1.164	1.283	1.265	1.265
S.E.M. :	0.0334	0.0108	0.0346	0.0082	0.0238

CAGE :	D 19 to D 22	D 22 to D 26	D 26 to D 28
1	1.302	1.402	1.444
6	1.141	1.351	1.344
8	1.228	1.256	1.233
12	1.167	1.247	1.149
15	1.308	1.382	1.396
MEAN :	1.229	1.328	1.313
S.E.M. :	0.0341	0.0321	0.0540

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : WATER FOOD RATIO

SERIES : ROVOL V : 155.2

DOSE : 155.2 mg/kg P.O.

CAGE :	D 1 to D 5	D 5 to D 8	D 8 to D 12	D 12 to D 15	D 15 to D 19
2	1.293	1.271	1.228	1.258	1.336
4	1.269	1.315	1.349	1.317	1.241
9	1.205	1.171	1.134	1.143	1.233
11	1.142	1.154	1.000	1.074	0.991
13	1.395	1.329	1.424	1.325	1.338
MEAN :	1.261	1.248	1.227	1.224	1.228
S.E.M. :	0.0427	0.0362	0.0755	0.0496	0.0632

CAGE :	D 19 to D 22	D 22 to D 26	D 26 to D 28
2	1.176	1.320	1.355
4	1.229	1.272	1.233
9	1.228	1.268	1.169
11	1.060	1.031	1.041
13	1.319	1.386	1.275
MEAN :	1.214	1.255	1.214
S.E.M. :	0.0457	0.0601	0.0528

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : HEMATOLOGY

SERIES : CONTROLS

DOSE : 0 mg/kg P.O.

ANIMAL	ERYTHROCYTES	HEMOGLOBIN	HEMATOCRIT	V.G.M.	C.G.M.
S 2490	8.34	10.7	0.47	56.35	22.77
S 2510	8.14	10.8	0.44	54.05	24.55
S 2498	8.70	11.0	0.46	52.87	23.91
S 2515	8.50	11.0	0.46	54.12	23.91
S 2511	8.09	10.8	0.44	54.39	24.55
S 2518	7.58	10.7	0.44	58.05	24.32
S 2497	8.15	10.5	0.46	56.44	22.83
S 2505	8.80	11.5	0.48	54.55	23.96
S 2488	8.05	10.2	0.44	54.66	23.18
S 2501	8.20	10.5	0.46	56.10	22.83
MEAN :	8.26	10.8	0.46	55.16	23.68
S.E.M. :	0.111	0.11	0.005	0.484	0.227

ANIMAL	LEUCOCYTES	NEUTROPH.	EOSINOPH.	BASOPH.	LYMPHOCYTES
S 2490	8.17	8.0	2.0	0.0	89.0
S 2510	9.66	7.0	1.0	0.0	91.0
S 2498	9.84	9.0	2.0	0.0	88.0
S 2515	10.63	11.0	1.0	0.0	88.0
S 2511	9.99	10.0	1.0	0.0	88.0
S 2518	7.73	18.0	3.0	0.0	79.0
S 2497	10.53	8.0	0.0	0.0	92.0
S 2505	9.31	8.0	0.0	0.0	92.0
S 2488	14.96	13.0	3.0	0.0	84.0
S 2501	7.08	14.0	3.0	0.0	82.0
MEAN :	9.79	10.6	1.6	0.0	87.3
S.E.M. :	0.687	1.10	0.37	0.00	1.37

ANIMAL	MONOCYTES	THROMBOCYTES
S 2490	1.0	689
S 2510	1.0	774
S 2498	1.0	663
S 2515	0.0	728
S 2511	1.0	563
S 2518	0.0	608
S 2497	0.0	518
S 2505	0.0	588
S 2488	0.0	539
S 2501	1.0	577
MEAN :	0.5	625
S.E.M. :	0.17	26.9

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : HEMATOLOGY

SERIES : ROVOL V : 38.8

DOSE : 38.8 mg/kg P.O.

ANIMAL :	ERYTHROCYTES	HEMOGLOBIN	HEMATOCRIT	V.G.M.	C.G.M.
S 2504	8.56	10.8	0.48	56.07	22.50
S 2516	8.43	11.1	0.48	56.94	23.13
S 2491	7.49	10.6	0.44	58.74	24.09
S 2494	8.63	10.8	0.46	53.30	23.48
S 2492	8.40	10.7	0.46	54.76	23.26
S 2499	7.40	9.3	0.42	56.76	22.14
S 2507	8.65	10.5	0.46	53.18	22.83
S 2514	8.45	11.0	0.48	56.80	22.92
S 2506	7.95	10.3	0.46	57.86	22.39
S 2509	8.70	11.5	0.49	56.32	23.47
MEAN :	8.27	10.7	0.46	56.07	23.02
S.E.M. :	0.152	0.18	0.007	0.577	0.186

ANIMAL :	LEUCOCYTES	NEUTROPH.	EOSINOPH.	BASOPH.	LYMPHOCYTES
S 2504	6.84	13.0	2.0	0.0	85.0
S 2516	7.49	10.0	3.0	0.0	85.0
S 2491	7.65	9.0	0.0	0.0	90.0
S 2494	7.15	9.0	0.0	0.0	91.0
S 2492	10.09	7.0	2.0	0.0	90.0
S 2499	7.70	10.0	2.0	0.0	87.0
S 2507	8.73	8.0	2.0	0.0	90.0
S 2514	10.29	12.0	3.0	0.0	85.0
S 2506	6.60	9.0	2.0	0.0	89.0
S 2509	10.28	15.0	2.0	0.0	82.0
MEAN :	8.28	10.2	1.8	0.0	87.4
S.E.M. :	0.460	0.77	0.33	0.00	0.96

ANIMAL :	MONOCYTES	THROMBOCYTES
S 2504	0.0	635
S 2516	2.0	646
S 2491	1.0	568
S 2494	0.0	703
S 2492	1.0	623
S 2499	1.0	498
S 2507	0.0	472
S 2514	0.0	584
S 2506	0.0	546
S 2509	1.0	625
MEAN :	0.6	590
S.E.M. :	0.22	22.4

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : HEMATOLOGY

SERIES : ROVOL V : 155.2

DOSE : 155.2 mg/kg P.O.

ANIMAL :	ERYTHROCYTES	HEMOGLOBIN	HEMATOCRIT	V.O.M.	C.G.M.
S 2489	8.29	10.6	0.45	54.28	23.56
S 2517	8.41	11.4	0.47	55.89	24.26
S 2493	8.52	10.6	0.44	51.64	24.09
S 2495	8.17	10.6	0.44	53.86	24.09
S 2503	7.95	10.6	0.46	57.86	23.04
S 2519	8.80	11.4	0.48	54.55	23.75
S 2502	8.40	10.3	0.45	53.57	22.89
S 2512	8.30	10.6	0.44	53.01	24.09
S 2496	8.30	10.3	0.45	54.22	22.89
S 2508	7.85	10.6	0.48	61.15	22.08
MEAN :	8.30	10.7	0.46	55.00	23.47
S.E.M. :	0.086	0.12	0.005	0.861	0.227

ANIMAL :	LEUCOCYTES	NEUTROPH.	EOSINOPH.	BASOPH.	LYMPHOCYTES
S 2489	7.59	8.0	2.0	0.0	90.0
S 2517	11.61	8.0	2.0	0.0	89.0
S 2493	11.16	12.0	1.0	0.0	85.0
S 2495	17.84	5.0	0.0	0.0	95.0
S 2503	9.99	10.0	2.0	0.0	86.0
S 2519	10.04	9.0	1.0	0.0	90.0
S 2502	10.43	10.0	3.0	0.0	86.0
S 2512	9.90	12.0	1.0	0.0	85.0
S 2496	6.96	6.0	0.0	0.0	94.0
S 2508	11.02	8.0	2.0	0.0	90.0
MEAN :	10.65	8.8	1.4	0.0	89.0
S.E.M. :	0.927	0.73	0.31	0.00	1.13

ANIMAL :	MONOCYTES	THROMBOCYTES
S 2489	0.0	669
S 2517	1.0	805
S 2493	2.0	592
S 2495	0.0	707
S 2503	2.0	839
S 2519	0.0	678
S 2502	1.0	546
S 2512	2.0	770
S 2496	0.0	581
S 2508	0.0	607
MEAN :	0.8	679
S.E.M. :	0.29	31.7

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : BIOCHEMICAL DATA

SERIES : CONTROLS

DOSE : 0 mg/kg P.O.

ANIMAL	CHOLESTER.	TRIGLYCER.	PROTEINS	CALCIUM	OSMOLARITY
S 2490	3.23	0.95	68.8	2.81	1470
S 2510	3.20	1.07	70.7	2.86	1790
S 2498	3.01	1.09	67.1	2.66	2115
S 2515	3.38	1.45	67.5	2.74	1430
S 2511	3.43	0.99	67.5	2.93	1835
S 2518	1.88	0.98	68.9	2.92	1470
S 2497	3.20	1.04	64.6	2.69	1380
S 2505	2.98	0.54	70.3	2.89	1360
S 2488	3.34	0.54	69.9	2.85	1575
S 2501	2.78	0.65	67.5	2.81	1790
MEAN :	3.04	0.93	68.3	2.82	1622
S.E.M. :	0.144	0.089	0.58	0.030	78.7

ANIMAL	URI. CREAT.	SERUM CREAT.	CREA. CLEAR.	UREA	BILIRUBIN
S 2490	10.8	73.9	0.616	7.80	5.90
S 2510	13.6	71.7	0.595	6.38	5.20
S 2498	15.9	73.9	0.633	7.96	8.90
S 2515	9.4	78.4	0.588	6.92	5.60
S 2511	14.2	73.9	0.697	7.12	7.00
S 2518	11.3	71.7	0.865	8.46	6.70
S 2497	6.3	62.7	0.473	8.31	4.80
S 2505	8.2	67.2	0.837	7.31	2.60
S 2488	9.4	67.2	0.549	7.00	4.40
S 2501	12.0	62.7	0.901	5.58	5.50
MEAN :	11.1	70.3	0.675	7.28	5.66
S.E.M. :	0.93	1.64	0.0460	0.281	0.531

ANIMAL	SGOT	SGPT	AL. PHOSPH
S 2490	70.0	31.9	158
S 2510	59.7	17.5	123
S 2498	72.1	56.6	159
S 2515	62.8	23.2	112
S 2511	58.7	19.6	140
S 2518	64.9	15.4	133
S 2497	60.7	19.6	134
S 2505	94.7	39.1	151
S 2488	43.2	26.3	89
S 2501	60.7	33.5	110
MEAN :	64.8	28.3	131
S.E.M. :	4.14	3.97	7.2

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : BIOCHEMICAL DATA

SERIES : ROVOL V : 38.8

DOSE : 38.8 mg/kg P.O.

ANIMAL :	CHOLESTER.	TRIGLYCER.	PROTEINS	CALCIUM	OSMOLARITY
S 2504	3.43	0.65	66.1	2.74	1790
S 2516	2.78	0.93	68.4	2.80	1560
S 2491	2.28	0.48	64.6	2.70	1685
S 2494	3.45	1.09	70.7	2.75	1575
S 2492	3.82	1.23	67.5	2.76	1470
S 2499	3.36	1.24	67.8	3.07	1340
S 2507	3.27	0.79	68.8	2.75	1405
S 2514	2.61	1.09	72.6	3.03	2010
S 2506	2.25	0.69	68.8	2.96	1560
S 2509	3.65	0.86	74.1	2.96	1340
MEAN :	3.09	0.90	68.9	2.85	1574
S.E.M. :	0.179	0.081	0.91	0.043	66.5

ANIMAL :	URI CREAT.	SERUM CREAT.	CREA. CLEAR.	UREA	BILIRUBIN
S 2504	11.6	80.7	0.902	5.96	6.30
S 2516	9.6	71.7	0.919	7.50	7.00
S 2491	10.8	71.7	0.768	5.77	7.40
S 2494	10.9	78.4	0.791	6.04	5.20
S 2492	12.7	73.9	1.045	7.12	5.90
S 2499	9.6	78.4	0.960	7.00	5.90
S 2507	7.1	71.7	0.913	7.31	4.10
S 2514	11.6	69.5	1.113	7.00	4.10
S 2506	9.3	89.6	0.692	8.77	4.40
S 2509	8.5	80.7	0.537	8.15	4.40
MEAN :	10.2	76.6	0.864	7.06	5.47
S.E.M. :	0.53	1.94	0.0539	0.304	0.384

ANIMAL :	SGOT	SGPT	AL. PHOSPH.
S 2504	73.1	54.0	121
S 2516	59.7	20.6	96
S 2491	82.4	36.0	110
S 2494	75.2	18.5	96
S 2492	70.0	33.5	107
S 2499	80.3	25.7	119
S 2507	59.7	59.2	147
S 2514	74.1	29.9	151
S 2506	84.4	66.9	137
S 2509	75.2	30.9	165
MEAN :	73.4	37.5	125
S.E.M. :	2.67	5.28	7.6

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : BIOCHEMICAL DATA

SERIES : ROVOL V : 155.2

DOSE : 155.2 mg/kg P.O.

ANIMAL :	CHOLESTER.	TRIGLYCER.	PROTEINS	CALCIUM	OSMOLARITY
S 2489	3.05	0.95	67.1	2.61	1045
S 2517	3.87	1.21	65.6	2.86	1195
S 2493	3.89	1.31	69.4	2.66	1380
S 2495	3.32	1.13	66.5	2.82	1360
S 2503	4.20	1.19	73.2	2.92	1380
S 2519	3.20	1.61	65.6	2.90	1340
S 2502	3.25	0.77	73.2	2.78	1045
S 2512	3.32	1.23	72.2	2.89	1155
S 2496	3.65	0.86	71.3	2.75	1280
S 2508	3.14	0.60	69.4	2.90	1340
MEAN :	3.49	1.09	69.3	2.81	1252
S.E.M. :	0.122	0.093	0.96	0.034	42.0

ANIMAL :	URI. CREAT.	SERUM CREAT.	CREA. CLEAR.	UREA	BILIRUBIN
S 2489	7.0	71.7	0.383	5.11	5.60
S 2517	8.3	78.4	0.519	6.73	4.80
S 2493	11.7	73.9	0.931	7.58	5.60
S 2495	8.8	71.7	0.578	6.54	5.20
S 2503	8.2	78.4	0.513	6.62	5.20
S 2519	5.2	76.2	0.294	8.85	4.40
S 2502	5.1	85.1	0.276	7.31	4.80
S 2512	6.8	78.4	0.561	5.65	2.20
S 2496	7.5	71.7	0.492	6.85	4.40
S 2508	6.2	80.7	0.542	8.08	4.40
MEAN :	7.5	76.6	0.509	6.93	4.66
S.E.M. :	0.61	1.41	0.0581	0.347	0.310

ANIMAL :	SGOT	SGPT	AL. PHOSPH.
S 2489	54.6	24.7	99
S 2517	61.8	23.2	158
S 2493	59.7	22.6	99
S 2495	71.0	25.7	137
S 2503	61.8	25.7	112
S 2519	65.9	19.6	110
S 2502	61.8	39.1	137
S 2512	76.2	30.9	96
S 2496	47.4	18.0	100
S 2508	60.7	24.2	151
MEAN :	62.1	25.4	120
S.E.M. :	2.52	1.89	7.5

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : URINARY EXCRETION

SERIES : CONTROLS

DOSE : 0 mg/kg P.O.

ANIMAL :	EXC. VOL. 4 H	% EXC. 4 H	EXC. VOL. 7 H	% EXC. 7 H	VOL. 7-24 H
S 2490	5.0	69.40	5.2	72.20	4.3
S 2510	6.0	85.70	7.0	100.00	3.2
S 2498	6.0	80.00	6.2	82.70	3.0
S 2515	5.0	65.80	6.4	84.20	5.0
S 2511	8.0	101.30	9.2	116.50	3.7
S 2518	8.0	103.90	8.2	106.50	5.6
S 2497	6.0	76.90	7.4	94.90	4.8
S 2505	7.0	87.50	7.0	87.50	7.0
S 2488	8.0	94.10	8.8	103.50	4.0
S 2501	9.0	112.50	9.0	112.50	4.8
MEAN :	6.8	87.71	7.4	96.05	4.5
S.E.M. :	0.44	4.828	0.42	4.510	0.38

ANIMAL :	EXC. VOL. 24 H	PH
S 2490	9.5	7.00
S 2510	10.2	6.00
S 2498	9.2	5.50
S 2515	11.4	6.50
S 2511	12.9	6.00
S 2518	13.8	6.50
S 2497	12.2	6.50
S 2505	14.0	7.00
S 2488	12.8	6.00
S 2501	13.8	6.00
MEAN :	12.0	6.30
S.E.M. :	0.57	0.153

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : URINARY EXCRETION

SERIES : ROVOL V : 38.8

DOSE : 38.8 mg/kg P.O.

ANIMAL :	EXC. VOL. 4 H	% EXC. 4 H	EXC. VOL. 7 H	% EXC. 7 H	VOL. 7-24 H
S 2504	6.0	85.70	6.0	85.70	4.0
S 2516	8.0	106.70	8.2	109.30	5.0
S 2491	5.0	63.30	5.4	68.40	6.0
S 2494	6.0	75.00	6.2	77.50	4.8
S 2492	6.0	70.60	6.0	70.60	5.0
S 2499	6.0	73.20	7.0	85.40	4.4
S 2507	7.0	88.60	8.0	101.30	4.7
S 2514	10.0	111.10	10.6	117.80	6.6
S 2506	7.0	87.50	7.2	90.00	4.8
S 2509	8.0	95.20	10.0	119.00	7.2
MEAN :	6.9	85.69	7.5	92.50	5.2
S.E.M. :	0.46	4.931	0.55	5.860	0.32

ANIMAL :	EXC. VOL. 24 H	PH
S 2504	10.0	6.00
S 2516	13.2	6.00
S 2491	11.4	6.00
S 2494	11.0	6.00
S 2492	11.0	6.00
S 2499	11.4	7.00
S 2507	12.7	7.00
S 2514	17.2	6.00
S 2506	12.0	6.00
S 2509	17.2	6.00
MEAN :	12.7	6.20
S.E.M. :	0.80	0.133

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : URINARY EXCRETION

SERIES : ROVOL V : 155.2

DOSE : 155.2 mg/kg P.O.

ANIMAL :	EXC. VOL. 4 H	% EXC. 4 H	EXC. VOL. 7 H	% EXC. 7 H	VOL. 7-24 H
S 2489	8.0	103.90	9.0	116.90	6.4
S 2517	7.5	100.00	8.4	112.00	7.0
S 2493	5.0	64.90	5.2	67.50	5.2
S 2495	10.0	117.60	10.6	124.70	5.8
S 2403	6.0	68.20	6.0	68.20	6.2
S 2519	8.0	92.00	8.4	96.60	8.0
S 2502	6.0	76.90	8.2	105.10	9.4
S 2512	4.0	47.10	5.2	61.20	6.8
S 2496	9.0	101.10	11.0	123.60	6.8
S 2508	7.0	81.40	8.2	95.30	5.2
MEAN :	7.1	85.31	8.0	97.11	6.7
S.E.M. :	0.58	6.793	0.64	7.561	0.40

ANIMAL :	EXC. VOL. 24 H	PH
S 2489	15.4	7.00
S 2517	15.4	6.50
S 2493	10.4	6.00
S 2495	16.4	6.00
S 2403	12.2	6.00
S 2519	16.4	5.50
S 2502	17.6	7.00
S 2512	12.0	6.50
S 2496	17.8	6.00
S 2508	13.4	6.00
MEAN :	14.7	6.25
S.E.M. :	0.81	0.154

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : ORGAN WEIGHT

SERIES : CONTROLS

DOSE : 0 mg/kg P.O.

ANIMAL	KIDNEYS	OVARIES	ADRENALS	LIVER	HEART
S 2490	1.666	138.00	80.00	7.13	0.778
S 2510	1.568	127.00	65.00	6.51	0.739
S 2498	1.758	145.00	86.00	7.16	0.786
S 2515	1.690	131.00	61.00	7.25	0.729
S 2511	1.752	172.00	73.00	7.60	0.881
S 2518	1.761	131.00	74.00	7.58	0.822
S 2497	1.809	89.00	68.00	7.96	0.824
S 2505	1.836	148.00	95.00	7.59	0.780
S 2488	2.093	153.00	79.00	8.58	0.857
S 2501	1.913	154.00	71.00	7.15	0.803
MEAN :	1.785	138.80	75.20	7.45	0.800
S.E.M. :	0.0456	6.992	3.210	0.176	0.0152

ANIMAL	THYMUS	SPLEEN	BRAIN
S 2490	478.0	472.0	1.281
S 2510	501.0	553.0	1.344
S 2498	584.0	508.0	1.376
S 2515	659.0	667.0	1.326
S 2511	786.0	528.0	1.361
S 2518	492.0	477.0	1.348
S 2497	690.0	567.0	1.375
S 2505	592.0	555.0	1.500
S 2488	822.0	563.0	1.340
S 2501	580.0	564.0	1.450
MEAN :	618.4	545.4	1.370
S.E.M. :	37.88	17.58	0.0198

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : ORGAN WEIGHT

SERIES : ROVOL V : 38.8

DOSE : 38.8 mg/kg P.O.

ANIMAL :	KIDNEYS	OVARIES	ADRENALS	LIVER	HEART
S 2504	1.587	132.00	87.00	6.96	0.701
S 2516	1.690	139.00	87.00	7.38	0.684
S 2491	1.700	164.00	93.00	7.26	0.813
S 2494	1.895	130.00	99.00	7.76	0.842
S 2492	1.789	134.00	84.00	7.94	1.036
S 2499	1.741	127.00	65.00	7.38	0.720
S 2507	1.980	165.00	79.00	7.77	0.849
S 2514	1.950	176.00	90.00	9.10	0.974
S 2506	1.857	130.00	86.00	7.33	0.839
S 2509	1.972	146.00	78.00	7.84	0.917
MEAN :	1.816	144.30	84.80	7.67	0.837
S.E.M. :	0.0428	5.596	2.943	0.186	0.0367

ANIMAL :	THYMUS	SPLEEN	BRAIN
S 2504	265.0	537.0	1.287
S 2516	686.0	467.0	1.350
S 2491	502.0	660.0	1.381
S 2494	656.0	501.0	1.283
S 2492	473.0	555.0	1.279
S 2499	492.0	413.0	1.223
S 2507	454.0	635.0	1.298
S 2514	714.0	567.0	1.455
S 2506	628.0	555.0	1.359
S 2509	537.0	555.0	1.409
MEAN :	540.7	544.5	1.332
S.E.M. :	42.69	23.00	0.0223

ROVOL V
TOXICOLOGIC ORIENTATION ASSAY
FEMALE RAT : ORGAN WEIGHT

SERIES : ROVOL V : 155.2

DOSE : 155.2 mg/kg P.O.

ANIMAL :	KIDNEYS	OVARIES	ADRENALS	LIVER	HEART
S 2489	1.616	120.00	72.00	7.26	0.718
S 2517	1.654	153.00	70.00	7.61	0.785
S 2493	1.847	166.00	82.00	8.31	0.927
S 2495	1.853	134.00	87.00	8.34	0.779
S 2503	2.106	156.00	83.00	9.85	0.999
S 2519	1.874	136.00	78.00	9.53	0.981
S 2502	1.687	125.00	67.00	7.79	0.895
S 2512	1.847	135.00	75.00	8.97	0.926
S 2496	1.740	150.00	76.00	8.35	0.869
S 2508	1.830	139.00	76.00	9.55	0.873
MEAN :	1.805	141.40	76.60	8.55	0.875
S.E.M. :	0.0445	4.576	1.945	0.281	0.0287

ANIMAL :	THYMUS	SPLEEN	BRAIN
S 2489	394.0	431.0	1.137
S 2517	411.0	537.0	1.356
S 2493	597.0	642.0	1.416
S 2495	852.0	680.0	1.299
S 2503	748.0	673.0	1.320
S 2519	491.0	601.0	1.181
S 2502	589.0	589.0	1.364
S 2512	636.0	699.0	1.310
S 2496	765.0	601.0	1.385
S 2508	550.0	610.0	1.326
MEAN :	603.3	606.3	1.309
S.E.M. :	47.90	24.87	0.0277