

I -77-001
(E-107)

Report to
General Foods Corporation
Tarrytown, New York

Effect of Aspartame Loading upon Plasma and Erythrocyte,
Free Amino Acid Levels and Blood Methanol Levels in
Normal One-Year-Old Children

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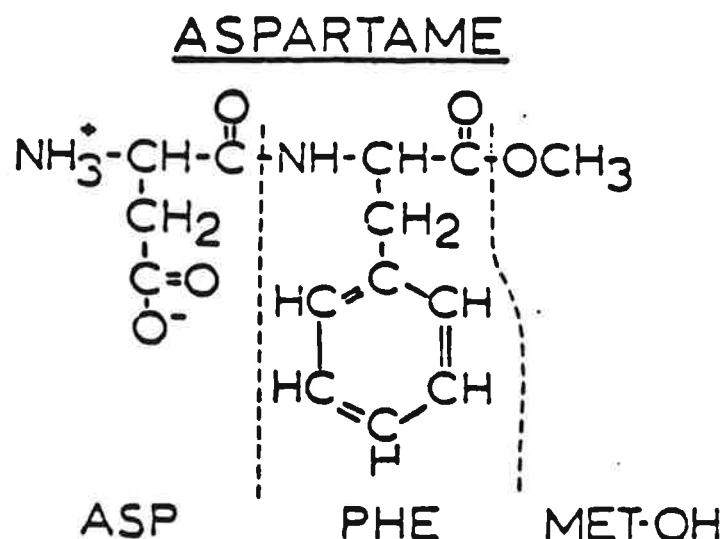
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ASPARTAME METABOLISM IN INFANTS

Background

Aspartame is a dipeptide sweetener whose structure is shown below. The molecule is L-aspartyl-phenylalanyl-methyl ester and is between 180-200 times sweeter than sucrose. It is metabolized in the intestinal mucosa into its component amino acids and methanol, which are handled in a manner similar to those arising from dietary protein and methylated polysaccharides.



Questions about Aspartame safety have arisen because of concern about the potential toxic effects of its component amino acids (phenylalanine and aspartate) and methanol formed after hydrolysis in the gut. Each of these components, like all chemical substances, may exert toxic effects at high levels, although species and age susceptibility vary.

Data submitted by the MRCA Menu Census (1973) indicate that approximately one in ten one-year-olds is an occasional consumer of beverages prepared from instant soft drink mixes. These mixes may be purchased without added sweetener, or in a form sweetened with either sucrose or some "artificial sweetener".

If General Foods were to market an Aspartame-sweetened instant soft drink mix and Aspartame was used as the sole sweetener for this product, it would contain approximately one gram of Aspartame in two quarts of prepared drink. Eight ounces of such a beverage would contain 125 mg of Aspartame. Thus, a 10 kg one-year-old child would ingest approximately 12.5 mg Aspartame/kg body weight (MPK).

The possibility also exists that a one-year-old child might ingest the dry contents of an entire Aspartame-sweetened instant soft drink packet. Intake under these extraordinary circumstances would be 100 MPK for a 10 kg child.

We have previously tested the effect of Aspartame on plasma and red cell concentrations of free amino acids and blood methanol concentrations in normal adults when ingested at levels of 34, 50, 100, 150 and 200 MPK (1-6). While we have not studied Aspartame metabolism in infants, we have compared protein digestion and metabolism in six normal adults, 16 normal one-year-olds and eight normal two-year-olds fed a milk-egg custard meal at a level of one gram of protein per kilogram body weight (7). Infants fed this custard meal consumed 66 mg of phenylalanine and 30 mg of aspartate per kg body weight.

The results of the custard study indicate that the one-year-old child metabolizes peptide bound amino acids including aspartate and phenylalanine as well as the adult (7). The plasma free amino acid response to the custard meal can serve as a control baseline for studies with Aspartame.

The present study was designed to provide information about the effects of Aspartame ingestion upon plasma and erythrocyte levels of amino acids, as well as blood methanol levels in young children. Aspartame, dissolved in Kool-Aid, was administered to fasting 8 to 12 month old infants at 34, 50 and 100 mg Aspartame per kg body weight. The study of Aspartame at 100 mg/kg was initiated only after review of the data obtained at the two lower levels (34 and 50 mg/kg).

The levels tested represent the extremes of potential ingestion of Aspartame in instant soft drink mixes and cover both normal and abuse conditions.

The data in Table 1 compare the amounts of aspartate, phenylalanine and methanol ingestion by infants given Aspartame to levels of these amino acids ingested by one-year-old children fed a milk-egg custard meal (7). The quantity of aspartate and phenylalanine contained in the milk-egg custard meal was larger than the amount given as Aspartame in the present study.

Studies of Aspartame Loading at 34 and 50 mg/kg Body Weight

Experimental Design

A total of 12 infants, ages 8 to 12 months, were studied. Informed parental consent was obtained. Blood samples were obtained by heel pricks.

A total of four samples were obtained from each infant: a fasting sample and three subsequent samples. Blood volume was 1.5 ml per sample for a total of 6 ml. The blood sampling followed the time schedule below:

Time Minutes	34 MPK DOSE			50 MPK DOSE		
	Three Subjects	Three Subjects	Total Number	Three Subjects	Three Subjects	Total Number
0	x	x	6	x	x	6
30	-	x	3	-	x	3
45	x	-	3	x	-	3
60	-	x	3	-	x	3
90	x	-	3	x	-	3
120	-	x	3	-	x	3
150	x	-	3	x	-	3

A physical examination, urine analysis and complete blood count was carried out on each infant prior to entry into the study. Each blood sample obtained was analyzed for plasma and erythrocyte free amino acid levels. Blood samples for amino acid analysis were centrifuged immediately to separate plasma and erythrocytes. The plasma was deproteinized with sulfosalicylic acid (8) and either analyzed immediately or stored at -70°C to prevent loss of glutamine and cystine (9, 10). Erythrocytes were prepared according to the method of Lavy and Barkin (11). Amino acid analyses were carried out on Beckman 12M amino acid analyzers. Blood methanol concentrations were measured by the gas chromatographic procedure of Baver et al. (12).

Cherry-flavored Kool-Aid was used as the vehicle for Aspartame ingestion. Aspartame was dissolved in 180 ml (6 ounces) of Kool-Aid and fed to the fasted infant from a bottle or cup. Any infant that appeared to be hungry after ingestion of the Kool-Aid was given fruit juice. However, the juice was not fed until one hour after administration of the test beverage.

General Foods Corporation provided the Aspartame and the unsweetened cherry-flavored Kool-Aid base used in the study.

Results: Aspartame Ingestion at 34 MPK

A complete listing of plasma and erythrocyte concentrations of all amino acids in the infants ingesting Aspartame at 34 mg/kg body weight is given in Appendices 1 & 2. The levels observed in these infants are similar to those noted in adult subjects ingesting Aspartame at this level (1, 2).

Plasma aspartate levels were unchanged or decreased from levels observed at zero time in the children studied (Table 2). These data indicate very rapid metabolism of the aspartate present in Aspartame and are similar to data obtained in adult subjects (Table 2). Plasma aspartate levels were higher in one-year-old children than in adult subjects, even at zero time. This elevation of plasma aspartate and glutamate levels in one-year-old children has been noted previously by our group (7). Despite increased initial plasma aspartate levels in the children, no increase in plasma aspartate was noted after Aspartame loading.

Plasma phenylalanine levels increased slightly after Aspartame ingestion rising from a mean of 6.3 ± 1.2 μ moles dl. at zero time to 9.7 ± 2.7 μ moles dl.

at 30 minutes (Table 2). This response was similar to that noted in previously studied adult subjects (1, 2). The data indicate rapid metabolism by the young child of phenylalanine from Aspartame.

It has been suggested that certain amino acids are transported in the erythrocyte to a greater extent than in plasma under certain circumstances (13-15). Thus erythrocyte concentrations of free amino acids were also measured. Table 3 compares erythrocyte aspartate and phenylalanine levels in infants studied with those noted in previously studied adult subjects. No significant changes in erythrocyte aspartate levels were noted in either group. Erythrocyte phenylalanine levels showed a similar, but smaller response, to those noted in plasma after Aspartame loading in both subject groups.

For purposes of comparison, Tables 2 and 3 include data on plasma and erythrocyte aspartate and phenylalanine concentrations in adults following administration of a load of aspartic acid equimolar to 34 MPK of Aspartame (1, 2).

Blood methanol levels in infants after Aspartame loading are found in Table 4. When the gas chromatograph is operated at this level of sensitivity, a small peak appears at the methanol position in the zero time plasma samples. This peak probably represents a normal plasma constituent rather than methanol. A small increase in blood methanol was noted after Aspartame loading. Blood methanol values increased from 0.08 ± 0.025 mg. dl. (mean \pm SEM) at zero time to 0.20 ± 0.15 mg. dl. at 45 minutes. Blood methanol levels then decreased rapidly to baseline levels. The values obtained were similar to those noted in adult subjects administered Aspartame at 34 mg. kg. body weight per day.

Results: Aspartame Ingestion at 50 MPK

A complete listing of plasma and erythrocyte concentrations of all amino acids in infants ingesting Aspartame at 50 MPK is given in Appendices 3 & 4. The levels observed in these infants were similar to, or lower than, those noted in adult subjects previously studied at this dose level (3).

Plasma aspartate levels were unchanged from levels observed at zero time (Table 5) and indicate rapid metabolism of the aspartate present in Aspartame. Plasma aspartate levels were again higher in one-year-old children than in adult subjects. However, this difference did not result in increased plasma aspartate levels after Aspartame loading.

Plasma phenylalanine levels increased after Aspartame ingestion at 50 MPK (Table 5), rising from 5.7 ± 0.5 (Mean \pm SD) at zero time to 11.6 ± 4.4 umoles/dl at 60 minutes. The values obtained were similar to those noted in adult subjects ingesting Aspartame at this level (3).

As shown in Table 5, erythrocyte aspartate levels were unchanged after Aspartame administration in both the infants and adult subjects studied. Erythrocyte phenylalanine level increased as expected, showing a response similar (although lower) to that noted in plasma.

For purposes of comparison, Tables 5 and 6 include data on plasma and erythrocyte aspartate and phenylalanine concentrations in adults (2, 6) after administration of a lactose placebo, 50 MPK, and Aspartame loading.

Blood methanol levels for these infants are summarized in Table 7. Blood methanol levels increased from 0.07 ± 0.02 mg/dl at zero time to values approximating 0.1 mg/dl at 60 minutes.

followed by a decrease to baseline values. These data are similar to those observed in normal adults administered Aspartame at this level (Table 7) and to those noted in infants administered Aspartame at 34 MPK (Table 4).

These data demonstrate that the one-year-old child handles Aspartame as well as the normal adult at these ingestion levels. Since marked elevations of plasma aspartate, phenylalanine and/or methanol are required for any toxic effects of these compounds, the failure to markedly elevate blood levels of these compounds indicate little hazard to the infant from Aspartame ingestion at the levels studied.

Studies of Aspartame Loading at 100 mg./kg Body Weight:

Experimental Design:

Upon completion of the Aspartame loading studies at 34 and 50 MPK the data were reviewed and evaluated. Since the data indicated that the one-year-old child metabolized Aspartame as well as the adult, and since we had seen no adverse effects in adult subjects given Aspartame at 100, 150 and 200 MPK (6), we proceeded to the last stage of our project.

A total of 9 infants, 8 to 12 months of age, were studied. Informed parental consent was obtained. Blood samples were obtained by heel stick. A total of four samples were obtained from each infant. A fasting sample and three subsequent samples. Blood volume was 1.5 ml. per sample, for a total of 6 ml. The blood sampling followed the normal procedure for venous

100 MPK DOSE

Time Minutes	Four Subjects	Four Subjects	Total Number
0	x	x	8
30	-	x	4
45	x	-	4
60	-	x	4
90	x	-	4
120	-	x	4
150	x	-	4

A physical examination, urine analysis and complete blood count were carried out on each infant prior to entry into the study. Each blood sample obtained was analyzed for plasma and erythrocyte free amino acid levels. Blood samples for amino analysis were centrifuged immediately to separate plasma and erythrocytes. The plasma was deproteinized with sulfosalicylic acid (8) and either analyzed immediately or stored at -70°C to prevent loss of glutamine and cystine (9,10). Erythrocytes were prepared according to the method of Levy and Barkin (11). Amino acid analyses were carried out on Beckman 121M amino acid analyzers. Blood methanol concentrations were measured by the gas chromatographic procedure of Baker et al. (12).

Cherry-flavored Kool-Aid was used as the vehicle to administer the Aspartame. Aspartame was dissolved in 150 ml. of purified water and added to the tested infant from a bottle or cup. Any infant who refused to drink after 100 ml. of the Kool-Aid was given the remaining 50 ml. of the Kool-Aid.

fed until one hour after administration of the test beverage.

General Food Corporation provided the Aspartame and the unsweetened cherry-flavored Kool-Aid base used in the study.

Results: Aspartame Ingestion at 100 MPK

A listing of plasma and erythrocyte concentrations of all amino acids in the infants ingesting Aspartame at 100 MPK is given in Appendices 5 & 6. The levels observed in these infants were similar to those noted in previously studied adult subjects (5) ingesting Aspartame at this level.

Plasma aspartate levels were essentially unchanged from levels observed at zero time (Table 9). These data indicate very rapid metabolism of the aspartate present in Aspartame, and are similar to data obtained in adult subjects. As in the previous studies (7), plasma aspartate levels were higher in one-year-olds than in adult subjects, even at zero time. Despite increased initial plasma aspartate levels in the children, plasma aspartate levels are essentially unchanged after Aspartame loading.

Plasma phenylalanine levels increased after Aspartame ingestion, rising from 4.8 ± 0.8 umoles/dl at zero time to 21.4 ± 5.7 umoles/dl at 45 minutes (Table 8). This response is similar to that noted in previously studied adult subjects (5). The data indicate a similar metabolism of phenylalanine from Aspartame by the young child and adult.

It has been suggested that certain amino acids are transported in the erythrocyte to a greater extent than in plasma under certain circumstances (1,2). Thus, erythrocyte concentrations of free amino acids were also

measured. Table 9 compares erythrocyte aspartate and phenylalanine levels in infants studied with those noted in previously studied adult subjects. No changes in erythrocyte aspartate levels were noted in either group. Erythrocyte phenylalanine levels showed a response similar to that noted in plasma after Aspartame loading in both subject groups, although absolute phenylalanine levels were somewhat lower.

Blood methanol levels in these infants are found in Table 10. When the gas chromatograph is operated at this level of sensitivity, a small peak occurs at the methanol position in the zero time plasma samples. This peak probably represents a normal plasma constituent rather than methanol. Blood methanol levels increase somewhat after Aspartame loading. Blood methanol values increased from 0.11 ± 0.05 mg/dl (Mean \pm SEM) at zero time to a value of 1.02 ± 0.28 mg/dl at 90 minutes. Blood methanol levels then decreased rapidly to baseline levels. The values obtained were similar to those observed in adult subjects administered Aspartame at 100 MPK (Table 10).

These data demonstrate that the one-year-old child handles Aspartame as well as the normal adult at this ingestion level. Since marked elevations of plasma aspartate, phenylalanine and/or methanol are required for any toxic effects of these compounds, the failure to markedly elevate these levels indicate little hazard to the infant from Aspartame ingestion even at a dose considered to be potential abuse dose.

GENERAL SUMMARY

The toxicity of Aspartame centers upon its effect on the blood levels of its constituent components: aspartate, phenylalanine and methanol. Each of these components may exert toxic effects, although species and age susceptibility vary.

I. Aspartate

Background:

The dicarboxylic amino acids glutamate and aspartate produce neuronal necrosis in the hypothalamus of the infant mouse when administered in large doses either orally or by injection (16). Older mice are also susceptible to dicarboxylic amino acid-induced neuronal necrosis, but much higher levels of amino acids are required to produce the lesion (17). The effects of glutamate and aspartate are additive in producing neuronal necrosis (18). Although Olney and his colleagues have reported neuronal necrosis after glutamate administration to the neonatal primate (19,20), other investigators have been unable to produce the lesion in the neonatal primate (21-25). The failure to observe any CNS lesion occurs despite demonstration that enormous elevations in blood glutamate levels occurred in the neonatal animals studied (25). No lesions were seen when glutamate was injected into the primate fetus in utero (26).

In the most susceptible animal species, the neonatal mouse, we have shown that plasma glutamate plus aspartate levels must reach 50 - 70 μ moles/dl. before the first signs of neuronal necrosis are noted (27). In the infant monkey, plasma glutamate plus aspartate levels up to 500 μ moles/dl.

did not result in neuronal necrosis (25).

Data Obtained:

We have previously administered Aspartame, dissolved in orange juice, to normal adult volunteers at 34, 50, 100, 150 and 200 MPK. Plasma and red cell levels of all amino acids were measured with time to determine if potentially toxic levels were attained. At 34, 50 and 100 MPK load levels, essentially no change was noted in plasma or red cell aspartate levels. Mean plasma aspartate levels increased slightly from 0.40 $\mu\text{m}/\text{dl}$ to about 0.40 $\mu\text{m}/\text{dl}$, but the changes were not statistically significant. These levels are below normal postprandial plasma aspartate levels in young infants fed conventional infant formulas (28, 29).

It has been suggested that the young child does not metabolize dicarboxylic amino acids as well as the adult. This was postulated to result in elevated plasma aspartate levels after ingestion of products like Aspartame.

In the present studies, plasma and erythrocyte aspartate levels did not increase after Aspartame loading at 34, 50, or 100 MPK over values at zero time. These findings were similar to those reported for adult subjects given the same dose (1-3). The data indicate rapid metabolism of aspartate by the young child. Since plasma and erythrocyte aspartate levels did not increase above values noted at zero time in these infants, or above those seen postprandially in the one-year-old after a protein feeding (28, 29), it is highly unlikely that aspartate ingestion from Aspartame at these levels poses

a threat to the child.

Any toxicity reported for the dicarboxylic amino acids is always associated with extreme elevations of plasma levels. In the nonhuman primate, doses of dicarboxylic amino acids resulting in plasma dicarboxylic amino acid levels of 500 umoles/dl were not associated with any sign of neuronal necrosis (25). In the animal species most susceptible to dicarboxylic amino acid-induced neuronal necrosis, the infant mouse, plasma dicarboxylic amino acid levels must increase to at least 50 to 70 umoles/dl before any toxicity is noted (27). Thus, even the acutely sensitive mouse requires substantial elevation of plasma levels before toxicity is noted. In the present study, blood glutamate plus aspartate levels were far below those reported to cause neuronal necrosis in the most sensitive species. These data, and the finding that the newborn nonprimate does not develop neuronal necrosis of 500 umoles/dl (25), indicate little risk to the young infant from the aspartate content of Aspartame at doses of Aspartame considered to be in the potential abuse range (100 MPK).

II. Phenylalanine

Background:

A genetic disorder called phenylketonuria results from either the absence or from an inactive enzyme required for the conversion of phenylalanine to tyrosine. Other children have a decreased ability to metabolize phenylalanine because of decreased quantities of a transaminase enzyme. In the children with "classical" phenylketonuria, plasma levels of phenylalanine exceed 100 umoles/dl.

(30 mg%) and range from 30 to 100 mg% (30). These levels are associated with mental retardation. Lower phenylalanine levels (30-60 μ m/dl or 5-10 mg%) noted in some variant forms of phenylalanemia are not associated with mental retardation (30-32).

Data Obtained:

Plasma and red cell phenylalanine levels were followed with time in normal one-year-olds administered Aspartame dissolved in Kool-Aid at 34, 50 and 100 MPK in an attempt to determine whether potentially toxic phenylalanine levels would be obtained at expected use or potential abuse levels.

In previous studies with normal adults subjects, a dose-related response of peak plasma phenylalanine levels to increasing levels of Aspartame was noted (shown below). In the absence of Aspartame, phenylalanine levels did not increase in the time period studied. The dose-response curve in one-year-olds was similar to that noted for the adult. At 34 mg/kg body weight, plasma

<u>APM Dose (mg/kg)</u>	<u>Mean Peak Phenylalanine (μmoles/dl)</u>	
	<u>Adults</u>	<u>Children</u>
0	6	6
34	11	10
50	15	12
100	20	22
150	35	-
200	49	-

phenylalanine levels approached the levels noted in young infants after a meal (12-13 umoles/dl). At higher dose levels, APM loads produced slightly higher and broader curves.

At the highest dose studied in one-year-olds (100 MPK), mean plasma phenylalanine levels were 22 umoles/dl (3.7 mg%) a value similar to that noted in adult subjects at this dose level. This level is well within the range permitted in phenylketonuric subjects during diet therapy (30-32) and is not associated with any toxic effects.

Red cell levels of phenylalanine were similar to those found in plasma and were similar to those found in the adult subjects studied at the same dose.

In children with classical phenylketonuria, elevated phenylalanine levels are associated with mental retardation. In such children, phenylalanine levels vary between 30-100 mg% or 180-600 umoles/dl. However, a number of children have been identified whose phenylalanine levels range from 10-20mg% or 60-120 umoles/dl who are not mentally retarded.

Although some investigators feel that there is no benign persistent phenylalanemia and recommend dietary therapy for any patient with a phenylalanine level ranging from 10-20 mg% (60-120 umoles/dl), most investigators do not treat patients with phenylalanine levels below 10 mg% (60 umoles/dl) if excess phenylalanine metabolites are not present (30-32).

Recent studies indicate that PKU children treated with diets maintain phenylalanine levels between 5-8.3 mg% are not significantly different

from children in whom phenylalanine levels were maintained between 1-4 mg%. These data suggest that phenylalanine levels below .8 mg% are not detrimental under most circumstances (30-32).

This knowledge can be applied to our present data. Under potential abuse loads of 100 mg/kg, mean peak plasma phenylalanine levels were 3.7 mg% (22 umoles/dl) and ranged up to 5 mg%, or 30 umoles/dl, over the course of a few hours. Since the developing infant appears to tolerate continued exposure to phenylalanine levels in this range, it would appear that little danger, if any, is involved even upon a potential abuse dose to the one-year-old child.

III. Methanol

Background:

Aspartame is a methyl ester. As such, methanol is released upon digestion and is absorbed. Plasma methanol levels have been measured in normal adult subjects administered Aspartame through the 200 MPK level. Mean peak methanol levels in these adult subjects were as follows:

<u>ASPARTAME Load</u>	<u>Peak Methanol Level</u>
mg/kg	mg, dl
0	0.25
34	0.53
50	0.73
100	1.55
150	2.30
200	3.40

According to the studies of Tephly and others (33-35), the toxic effects of methanol ingestion appear to be due to formate accumulation. In primate studies no acidosis is noted until formate levels reach 30 to 40 mg/dl. A blood methanol level of 200 to 300 mg/dl was present when the above levels of formate were reached. Thus, an approximate methanol-to formate ratio of 8:1 is noted. From these data, we may predict the following:

<u>Blood Methanol (mg/dl)</u>	<u>Blood Formate Predicted (mg/dl)</u>
1	0.125
2	0.25
4	0.5
8	1.0

Based on our experiments in adults, we expect acute abuse loads of 100 MPK of Aspartame to produce blood methanol levels of about 1-2 mg/dl in the infant. Formate levels of 0.25 mg/dl might then be predicted. We have looked for formate in the blood and urine of adult subjects receiving Aspartame at 150 and 200 MPK without success. This was expected, however, since the limit of the assay is 1 mg/dl. Thus, we would expect no formate to be detected in blood or urine of one-year-old children given Aspartame at 100 MPK.

In summary, the one-year-old child appears to metabolize methanol as well as the adult, since similar blood methanol concentrations were obtained

Since metabolic studies of Aspartame in normal adults at 150 and 300 MPK failed to produce evidence of formate accumulation, it is highly unlikely that a 100 MPK load would result in formate accumulation in the children studied in view of the similar blood methanol levels in infants and adults.

Effect of Sampling Site Upon Plasma Amino Acid Levels

Blood samples for analyses in these infants were obtained by a heel stick rather than venipuncture, since 4 samples were needed from each infant. Use of the heel site for blood sampling did complicate data evaluation slightly. During our initial study, in which the response to Aspartame loading at 34 MPK was tested, plasma levels of taurine, aspartate, serine, glycine and ornithine were well above values obtained in control children where the blood was obtained by venipuncture (7). For example, fasting plasma aspartate levels were 4-8 umoles/dl and serine levels were 30-60 umoles/dl, compared to values of 0.64 ± 0.29 and 12 ± 2 umoles/dl respectively in venous blood samples from control children. These high levels were present in zero time samples, and were not due to administration of the test compound. The higher aspartate levels presented the greatest potential problem for evaluation of the response to Aspartame loading, since zero time aspartate values were highly variable and tended to decrease slightly with increasing sampling times.

Stress, trauma and chemicals used to prepare the heel were eliminated as sources of these amino acids. After considerable searching and experimentation, we determined that the elevated plasma levels of taurine, aspartate, serine, glycine and ornithine resulted both from the difference

in site of blood sampling (heel vs. venipuncture) and from differences used to prepare the heel for blood sampling.

In our early studies with Aspartame loading at 34 MPK in these children the heel surface was carefully cleaned with acetone prior to sticking the heel to obtain the blood sample. This method was similar to the one used to treat the arm prior to venipuncture sampling in adults given Aspartame, and was chosen to prevent contamination of the blood sample with alcohols which would interfere with the methanol analysis. However, skin and sweat amino acids are apparently not removed by this method. A review of the literature noted a brief paper by Hamilton (39) reporting the presence of relatively large quantities of taurine, serine, ornithine, glycine and aspartate on the skin surface. Thus, the skin was undoubtedly the source of these elevated levels of amino acids. Accordingly, our procedure for washing the children's heels prior to sampling was altered to include a wash with soap and water, followed by washing with water alone, followed by the acetone wipe. This procedure markedly lowered the levels of those amino acids which Hamilton (39) reported to be present in large amounts on the skin. A comparison of fasting plasma amino acid levels in one-year-old infants obtained by these methods is shown in Table II. Plasma levels from children whose heels were prepared by acetone washing alone are compared with values obtained in children whose heels were washed with soap and water and with values obtained in venous blood of children. These data clearly indicate that plasma taurine, aspartate, serine, glycine and ornithine levels are

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Table 1

COMPARISON OF ASPARTATE, PHENYLALANINE AND METHANOL LOADS
AT THE LEVELS STUDIED

<u>Test</u>	<u>Load</u>	<u>Aspartate mg/kg</u>	<u>Phenylalanine mg/kg</u>	<u>Methanol mg/kg</u>
Aspartame	34 mg/kg	13.4	17	3.6
Aspartame	50 mg/kg	19.8	25	5.3
Aspartame	100 mg/kg	39.5	50	10.5
Protein Meal (milk-egg-custard)	1 gm/kg	80	55	

Table 2

PLASMA ASPARTATE AND PHENYLANINE LEVELS IN ADULTS
AND ONE-YEAR-OLDS ADMINISTERED ASPARTAME AT 34 MPK

ASPARTATE (umoles dl)

TIME (Hours)	ADULTS				CHILDREN	
	Aspartate 13 MPK		Aspartame 34 MPK		Aspartame 34 MPK	
	Mean	SD	Mean	SD		SD
0	0.30	0.18	0.30	0.06	5.11	3.30
0.25	0.26	0.10	0.25	0.11	--	--
0.5	0.30	0.19	0.31	0.08	4.60	4.34
0.75	0.36	0.18	0.31	0.15	3.25	2.62
1.0	0.39	0.22	0.33	0.12	3.17	1.57
1.5	0.29	0.20	0.30	0.14	2.59	1.51
2.0	0.25	0.16	0.31	0.06	1.86	0.54
2.5	--	--	--	--	3.53	2.37
3.0	0.27	0.15	0.29	0.15	--	--
4.0	0.36	0.34	0.26	0.13	--	--

PHENYLANINE (umoles dl)

TIME (hours)	ADULTS				CHILDREN	
	Aspartate 13 MPK		Aspartame 34 MPK		Aspartame 34 MPK	
	Mean	SD	Mean	SD	Mean	SD
0	5.63	1.24	5.56	1.21	6.33	1.19
0.25	5.45	0.88	5.93	2.21	--	--
0.5	5.30	1.05	11.1	2.49	9.71	2.71
0.75	4.97	0.74	11.1	4.01	9.12	3.37
1.0	4.58	0.86	10.5	1.74	8.70	0.75
1.5	4.49	0.96	9.54	1.94	7.56	1.50
2.0	4.92	0.95	8.80	1.95	7.40	1.19
2.5	--	--	--	--	6.97	1.35
3.0	4.98	1.15	7.74	1.53	--	--
4.0	5.13	1.17	7.14	2.31	--	--

Table 3

26

ERYTHROCYTE ASPARTATE AND PHENYLALANINE LEVELS IN NORMAL ADULTS AND
ONE-YEAR-OLDS ADMINISTERED ASPARTAME AT 34 MPK

TIME (HRS.)	ASPARTATE (umoles/100 gm)					
	ADULTS *				CHILDREN	
	Aspartate		Aspartame		Aspartame	
	13 MPK		34 MPK		34 MPK	
	Mean	SD	Mean	SD	Mean	SD
0	22.9	6.00	23.6	7.28	17.6	8.93
0.25	23.5	7.39	22.8	7.08		
0.5	23.6	6.83	22.9	6.92	16.4	11.4
0.75	23.3	6.98	23.2	7.15	16.0	9.02
1	23.1	7.06	23.0	6.72	15.5	11.1
1.5	23.5	6.55	23.2	7.42	17.4	9.73
2	23.6	6.35	23.6	7.45	13.9	7.92
2.5	--	--	--	--	15.1	9.17
3	24.1	6.97	23.3	7.50	--	--
4	23.5	6.72	23.6	7.28	--	--

TIME (HRS.)	PHENYLALANINE (umoles/100 gm)					
	ADULTS *				CHILDREN	
	Aspartate		Aspartame		Aspartame	
	13 MPK		34 MPK		34 MPK	
	Mean	SD	Mean	SD	Mean	SD
0	3.58	0.98	3.53	0.97	5.07	2.17
0.25	3.37	1.05	5.04	1.01	--	--
0.5	3.21	1.11	7.21	1.95	7.12	1.78
0.75	2.98	0.77	7.13	2.25	6.17	2.57
1	2.94	0.92	6.73	1.30	6.36	1.36
1.5	2.55	0.94	6.24	1.59	6.16	2.06
2	3.01	1.06	5.83	1.34	5.56	1.17
2.5					4.05	2.29
3	3.02	1.06	4.95	1.60	--	--
4	3.19	0.99	4.53	1.47	--	--

* Data from [illegible]

BLOOD METHANOL LEVELS IN ADULT AND ONE-YEAR-OLDS
AFTER ASPARTAME OR ASPARTATE INGESTION mg/l.

TIME (HRS.)	ADULTS N = 6				CHILDREN	
	Aspartate		Aspartame		Aspartame	
	13 mg/kg Mean	SEM	34 MPK Mean	SEM	34 MPK Mean	SEM
0	0.13	0.088	0.06	0.044	0.068	0.027
0.25	0.17	0.075	0.068	0.044	--	--
0.50	0.29	0.10	0.13	0.057	0.082	0.031
0.75	0.19	0.085	0.16	0.068	0.19	0.15
1.0	0.12	0.065	0.30	0.15	0.063	0.024
1.5	0.18	0.083	0.23	0.076	0.113	0.045
2.0	0.12	0.061	0.15	0.069	0.048	0.013
2.5	--	--	--	--	0.175	0.142
3.0	0.14	0.077	0.048	0.048	--	--
4.0	0.00	0.00	0.036	0.036	--	--

* Data from (5).

Table 3

PLASMA ASPARTATE AND PHENYLALANINE LEVELS IN NORMAL ADULTS
AND ONE-YEAR-OLDS ADMINISTERED ASPARTAME AT 50 MPK

TIME (HRS)	ASPARTATE (umoles/dl)					
	ADULTS*				CHILDREN	
	Lactose		Aspartame		Aspartame	
	Mean	50 MPK SD	Mean	50 MPK SD	Mean	50 MPK SD
0	0.32	0.20	0.42	0.33	3.03	1.50
0.25	0.28	0.07	0.42	0.24	--	--
0.5	0.24	0.09	0.54	0.55	2.72	0.67
0.75	0.23	0.05	0.31	0.15	2.95	1.98
1.0	0.40	0.40	0.34	0.19	2.97	0.30
1.5	0.24	0.14	0.30	0.17	2.62	1.20
2.0	0.17	0.05	0.30	0.15	1.91	0.93
2.5	--	--	--	--	2.34	0.95
3.0	0.22	0.03	0.17	0.05	--	--
4.0	0.21	0.03	0.23	0.12	--	--

TIME (HRS)	PHENYLALANINE (umoles/dl)					
	ADULTS*				CHILDREN	
	Lactose		Aspartame		Aspartame	
	Mean	50 MPK SD	Mean	50 MPK SD	Mean	50 MPK SD
0	5.04	1.13	4.61	1.72	5.74	1.51
0.25	4.47	0.81	8.34	2.72	--	--
0.5	4.99	0.98	14.5	4.47	11.45	3.10
0.75	4.23	0.95	16.2	4.86	10.6	0.75
1.0	4.45	0.85	14.2	4.02	12.6	4.42
1.5	4.33	0.83	15.7	6.19	9.41	0.22
2.0	4.38	0.93	12.3	3.73	3.92	1.85
2.5	--	--	--	--	3.50	1.14
3.0	4.32	0.35	3.10	2.23	--	--
4.0	4.38	1.13	6.40	2.02	--	--

* Data from 10.6

Table 6

ERYTHROCYTE ASPARTATE AND PHENYLALANINE LEVELS IN NORMAL ADULTS
AND ONE-YEAR-OLDS ADMINISTERED ASPARTAME AT 50 MPK

TIME (HRS)	ASPARTATE (umoles/100 gm)					
	ADULTS*				CHILDREN	
	Lactose		Aspartame		Aspartame	
	50 MPK Mean	SD	50 MPK Mean	SD	50 MPK Mean	SD
0	18.5	11.6	23.9	17.7	15.7	6.82
0.25	18.1	12.1	31.1	15.3	--	--
0.50	17.8	11.9	22.9	17.3	14.6	10.8
0.75	17.9	11.9	22.8	17.3	15.4	6.29
1.0	18.0	11.4	21.6	16.5	17.8	11.9
1.5	18.4	12.4	25.3	22.4	16.1	6.59
2.0	18.6	11.5	22.3	17.4	16.5	4.02
2.5	--	--	--	--	14.3	13.2
3.0	19.1	11.8	22.6	17.3	--	--
4.0	21.9	13.2	23.7	18.5	--	--

TIME (HRS)	PHENYLALANINE (umoles/100 gm)					
	ADULTS *				CHILDREN	
	Lactose		Aspartame		Aspartame	
	50 MPK Mean	SD	50 MPK Mean	SD	50 MPK Mean	SD
0	3.28	1.13	3.98	1.23	4.52	0.27
0.25	2.59	1.08	6.20	1.05	7.56	2.42
0.50	2.44	1.14	11.0	4.34	--	--
0.75	2.48	1.07	11.2	4.32	8.15	1.09
1.0	2.18	1.15	9.33	2.64	9.04	3.35
1.5	2.34	1.02	10.1	3.34	6.65	0.26
2.0	2.60	0.89	3.44	1.74	5.69	1.32
2.5	--	--	--	--	6.26	1.16
3.0	2.52	1.25	5.93	2.60	--	--
4.0	2.93	0.93	4.72	2.23	--	--

* Data from 26.

Table

BLOOD METHANOL LEVELS IN
ONE-YEAR-OLDS AFTER ASPARAGINE
mg. dl

TIME (hours)	ADULTS * N = 3		CHILDREN N = 5	
	Mean	SEM	Mean	SEM
0	0.00	0.00	0.064	0.02
0.25	0.00	0.00	--	--
0.50	0.178	0.103	0.227	0.125
0.75	0.231	0.133	0.200	0.113
1.00	0.342	0.137	0.123	0.108
1.50	0.278	0.150	0.310	0.146
2.00	0.00	0.00	0.00	0.00
2.50	--	--	0.040	0.021
3.00	0.342	0.197	--	--
4.00	0.155	0.09	--	--

* Data from (6).

PLASMA ASPARTATE AND PHENYLALANINE LEVELS IN NORMAL ADULTS
AND ONE-YEAR-OLDS ADMINISTERED ASPARTAME AT 100 mg

TIME (HRS)	ASPARTATE (umoles/dl)			
	ADULTS		CHILDREN	
	Mean	SD	Mean	SD
0	0.16	0.05	1.63	0.74
0.25	0.38	0.15	--	--
0.50	0.43	0.23	2.32	1.35
0.75	0.29	0.15	1.89	1.22
1.00	0.20	0.09	1.26	0.34
1.50	0.29	0.14	1.06	0.77
2.00	0.27	0.19	1.09	0.23
2.50	--	--	1.41	1.42
3.00	0.14	0.08	--	--
4.00	0.11	0.04	--	--

TIME (HRS)	PHENYLALANINE (umoles/dl)			
	ADULTS		CHILDREN	
	Mean	SD	Mean	SD
0	5.40	1.05	4.82	0.82
0.25	13.2	3.55	--	--
0.50	20.1	5.24	18.5	8.43
0.75	20.2	6.77	21.4	6.58
1.00	18.9	5.38	16.2	1.87
1.50	20.3	2.03	15.1	7.22
2.00	18.1	2.66	9.47	1.42
2.50	--	--	9.32	1.46
3.00	13.7	1.71	--	--
4.00	11.6	2.28	--	--

Table 3

ERYTHROCYTE ASPARTATE AND PHENYLALANINE LEVELS IN
NORMAL ADULTS AND ONE-YEAR-OLDS ADMINISTERED ASPARTAME AT
100 MPK

TIME (HRS)	ASPARTATE (umoles/dl)			
	ADULTS *		CHILDREN	
	Mean	SD	Mean	SD
0	23.6	3.82	19.8	7.29
0.25	24.4	5.34	--	--
0.50	24.9	5.00	23.9	4.66
0.75	23.4	3.77	15.0	3.78
1.00	24.8	4.60	22.8	4.90
1.50	25.8	5.91	13.6	4.46
2.00	23.8	4.18	23.4	4.86
2.50	--	--	13.3	3.06
3.00	24.7	6.07	--	--
4.00	24.4	5.04	--	--

TIME (HRS)	PHENYLALANINE (umoles/dl)			
	ADULTS *		CHILDREN	
	Mean	SD	Mean	SD
0	3.60	1.05	3.57	0.56
0.25	10.4	3.83	--	--
0.50	15.1	5.00	14.5	6.93
0.75	14.4	5.25	15.8	6.11
1.00	14.4	4.68	12.4	4.82
1.50	14.9	3.43	11.5	7.26
2.00	14.3	2.98	7.70	0.44
2.50	--	--	11.4	6.23
3.00	12.05	3.20	--	--
4.00	3.30	2.63	--	--

* Data from 3.5).

Table 10

BLOOD METHANOL LEVELS IN NORMAL ADULTS
AND ONE-YEAR-OLDS ADMINISTERED ASPARTAME AT 100 MPK
mg/dl

TIME (hours)	ADULTS*		CHILDREN	
	Mean	SEM	Mean	SEM
0	0.00	0.00	0.113	0.047
0.25	0.25	0.061	--	--
0.50	0.60	0.126	0.380	0.089
0.75	0.88	0.195	0.550	0.067
1.00	1.16	0.47	0.726	0.12
1.50	1.06	0.147	1.020	0.275
2.00	1.00	0.039	0.334	0.05
2.50	--	--	0.500	0.264
3.00	0.79	0.114	--	--
4.00	0.63	0.135	--	--

* Data from (6).

34
TABLE 1.

COMPARISON OF FASTING PLASMA AMINO ACID LEVELS IN ONE-LEAF-111
CHILDREN. SAMPLES OBTAINED FROM "ACETONE WIPEd HEEL, CAREFULLY WASHED
HEEL, OR FROM VENOUS BLOOD".

AMINO ACID	"ACETONE WIPEd" ^a	WASHED HEEL ^a	VENOUS BLOOD ^b
	(umoles/dl)		
TAURINE	8.15 ± 3.13	6.53 ± 2.33	3.65 ± 1.30
ASPARTATE	6.17 ± 2.68	1.79 ± 0.57	0.64 ± 0.29
THREONINE	14.0 ± 2.58	10.4 ± 2.72	9.60 ± 2.37
SERINE	42.5 ± 13.5	19.5 ± 4.07	12.0 ± 2.40
ASPARAGINE	4.56 ± 2.40	3.04 ± 1.44	6.15 ± 2.13
GLUTAMINE	47.9 ± 9.23	47.2 ± 10.2	62.6 ± 11.1
GLUTAMATE	9.01 ± 2.00	6.57 ± 2.01	5.76 ± 2.36
PROLINE	18.2 ± 5.93	13.1 ± 4.84	16.0 ± 5.74
CITRULLINE	2.86 ± 0.71	1.91 ± 0.68	2.74 ± 1.25
GLYCINE	38.0 ± 9.94	23.4 ± 5.82	19.8 ± 4.91
ALANINE	33.5 ± 4.13	31.7 ± 7.17	30.0 ± 8.06
α-AMINOBUTYRATE	2.27 ± 0.57	2.44 ± 0.98	3.21 ± 5.53
VALINE	25.4 ± 6.43	21.9 ± 5.49	20.5 ± 4.93
4-CYSTEINE	5.96 ± 2.20	6.73 ± 12.6	7.33 ± 1.71
METHIONINE	2.22 ± 0.29	1.72 ± 0.58	1.95 ± 0.35
ISOLEUCINE	7.26 ± 2.12	6.34 ± 2.31	6.51 ± 2.33
LEUCINE	12.7 ± 2.37	11.1 ± 3.15	10.7 ± 2.97
TYROSINE	7.97 ± 1.89	6.64 ± 1.72	5.62 ± 1.19
PHENYLALANINE	6.28 ± 0.91	5.35 ± 1.07	5.02 ± 1.24
ORNITHINE	17.4 ± 6.55	8.17 ± 2.15	3.64 ± 1.10
LYSINE	15.2 ± 2.02	13.0 ± 3.23	13.5 ± 3.31
HISTIDINE	11.1 ± 3.53	9.33 ± 2.27	7.77 ± 1.50
ARGININE	6.95 ± 1.52	6.46 ± 2.35	6.30 ± 2.77
TRYPTOPHAN	6.04 ± 1.72	5.23 ± 0.75	4.96 ± 1.13

Data shown as mean ± S.D.

^aData from this report

^bData from reference 17

[illegible]

[illegible]

[illegible]

[illegible]

PLASMA AMINO ACID LEVELS

10:30 - 6:30 PM, 10:30 PM - 6:30 PM

TIME	10:30 - 6:30 PM	10:30 PM - 6:30 PM	10:30 - 6:30 PM	10:30 PM - 6:30 PM	10:30 - 6:30 PM	10:30 PM - 6:30 PM
10:30	15.65	10.97	10.65	7.17	11.93	17.37
11:00	10.57	7.53	7.17	7.17	4.94	17.37
11:30	10.57	7.53	7.17	7.17	4.94	17.37
12:00	10.57	7.53	7.17	7.17	4.94	17.37
12:30	10.57	7.53	7.17	7.17	4.94	17.37
13:00	10.57	7.53	7.17	7.17	4.94	17.37
13:30	10.57	7.53	7.17	7.17	4.94	17.37
14:00	10.57	7.53	7.17	7.17	4.94	17.37
14:30	10.57	7.53	7.17	7.17	4.94	17.37
15:00	10.57	7.53	7.17	7.17	4.94	17.37
15:30	10.57	7.53	7.17	7.17	4.94	17.37
16:00	10.57	7.53	7.17	7.17	4.94	17.37
16:30	10.57	7.53	7.17	7.17	4.94	17.37
17:00	10.57	7.53	7.17	7.17	4.94	17.37
17:30	10.57	7.53	7.17	7.17	4.94	17.37
18:00	10.57	7.53	7.17	7.17	4.94	17.37
18:30	10.57	7.53	7.17	7.17	4.94	17.37
19:00	10.57	7.53	7.17	7.17	4.94	17.37
19:30	10.57	7.53	7.17	7.17	4.94	17.37
20:00	10.57	7.53	7.17	7.17	4.94	17.37
20:30	10.57	7.53	7.17	7.17	4.94	17.37
21:00	10.57	7.53	7.17	7.17	4.94	17.37
21:30	10.57	7.53	7.17	7.17	4.94	17.37
22:00	10.57	7.53	7.17	7.17	4.94	17.37
22:30	10.57	7.53	7.17	7.17	4.94	17.37
23:00	10.57	7.53	7.17	7.17	4.94	17.37
23:30	10.57	7.53	7.17	7.17	4.94	17.37
24:00	10.57	7.53	7.17	7.17	4.94	17.37

[illegible]

[illegible]

[illegible]

SECRET

1936 14500, 14500, 14500

Year	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412
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C LAMINO ACID IS: ASPARAGINE

EDYTPROGYTE FREE AMINO ACID LEVELS

13:00 TUESDAY, OCTOBER 4, 1977 58

SUBJECT	DATE	RIGHT DRSE /	TIME	0 MIN	30 MIN	45 MIN	60 MIN	90 MIN	120 MIN	150 MIN
KELLEY	5/17/77	34	5.43	4.69	4.49	4.49	4.49	4.49	4.49	4.49
WALKER	3/27/77	34	6.47	7.91	7.57	7.57	7.57	7.57	7.57	7.57
WALKER	3/17/77	34	7.11	7.33	5.41	5.41	5.41	5.41	5.41	5.41
WALKER	3/15/77	34	2.74	11.16	6.56	6.56	6.56	6.56	6.56	6.56
WALKER	2/22/77	34	4.54	5.10	3.16	3.16	3.16	3.16	3.16	3.16
WALKER	2/27/77	34	9.54	7.13	5.51	5.51	5.51	5.51	5.51	5.51
WALKER	5/17/77	34	4.60	3.92	3.92	3.92	3.92	3.92	3.92	3.92
WALKER	3/15/77	34	7.26	5.57	10.23	10.23	10.23	10.23	10.23	10.23
WALKER	3/27/77	34	4.69	6.21	4.45	4.45	4.45	4.45	4.45	4.45
WALKER	3/17/77	34	11.60	6.46	6.24	6.24	6.24	6.24	6.24	6.24
WALKER	5/17/77	34	6.67	8.06	6.30	5.06	5.48	5.93	4.55	4.55
WALKER	3/17/77	34	2.561	2.197	1.701	1.491	3.415	2.027	1.481	1.481
WALKER	5/17/77	34	10	5	5	5	5	5	5	5
WALKER	3/17/77	34	4.30	3.00	3.91	3.91	3.91	3.91	3.91	3.91
WALKER	2/23/77	50	4.39	1.29	3.31	3.31	3.31	3.31	3.31	3.31
WALKER	3/17/77	50	4.43	4.46	4.95	4.95	4.95	4.95	4.95	4.95
WALKER	3/17/77	50	10.11	6.44	7.18	7.18	7.18	7.18	7.18	7.18
WALKER	3/15/77	50	7.06	7.40	6.53	6.53	6.53	6.53	6.53	6.53
WALKER	2/27/77	50	4.73	5.21	10.10	10.10	10.10	10.10	10.10	10.10
WALKER	5/17/77	50	5.09	7.92	6.42	6.02	7.04	5.49	7.75	7.75
WALKER	3/17/77	50	2.206	1.507	1.195	0.841	1.001	0.535	1.307	1.307
WALKER	5/17/77	50	6	3	3	3	3	3	3	3
WALKER	3/17/77	50	10.70	10.50	11.40	11.40	11.40	11.40	11.40	11.40
WALKER	6/17/77	100	8.51	7.07	3.35	3.35	3.35	3.35	3.35	3.35
WALKER	4/27/77	100	10.43	8.44	7.23	7.23	7.23	7.23	7.23	7.23
WALKER	4/13/77	100	5.97	8.59	9.06	9.06	9.06	9.06	9.06	9.06
WALKER	4/12/77	100	5.65	5.42	9.11	9.11	9.11	9.11	9.11	9.11
WALKER	4/13/77	100	3.00	3.91	2.52	2.52	2.52	2.52	2.52	2.52
WALKER	4/12/77	100	1.40	3.44	5.67	5.67	5.67	5.67	5.67	5.67
WALKER	5/17/77	100	6.32	8.79	7.85	7.85	7.85	7.85	7.85	7.85
WALKER	4/27/77	100	8.25	8.73	6.67	6.67	6.67	6.67	6.67	6.67
WALKER	5/17/77	100	7.19	8.16	6.22	8.01	5.83	8.39	5.57	5.57
WALKER	3/17/77	100	3.301	1.825	2.942	3.067	1.767	2.545	2.888	2.888
WALKER	5/17/77	100	9	4	4	4	4	4	4	4

[illegible]

Altitude	Time	Temp	Wind	Clouds	Pressure	Humidity	Visibility	Remarks
1000	0800	65.0	10.0	0	30.0	75	10.0	Clear
1000	0900	64.0	10.0	0	30.0	75	10.0	Clear
1000	1000	63.0	10.0	0	30.0	75	10.0	Clear
1000	1100	62.0	10.0	0	30.0	75	10.0	Clear
1000	1200	61.0	10.0	0	30.0	75	10.0	Clear
1000	1300	60.0	10.0	0	30.0	75	10.0	Clear
1000	1400	59.0	10.0	0	30.0	75	10.0	Clear
1000	1500	58.0	10.0	0	30.0	75	10.0	Clear
1000	1600	57.0	10.0	0	30.0	75	10.0	Clear
1000	1700	56.0	10.0	0	30.0	75	10.0	Clear
1000	1800	55.0	10.0	0	30.0	75	10.0	Clear
1000	1900	54.0	10.0	0	30.0	75	10.0	Clear
1000	2000	53.0	10.0	0	30.0	75	10.0	Clear
1000	2100	52.0	10.0	0	30.0	75	10.0	Clear
1000	2200	51.0	10.0	0	30.0	75	10.0	Clear
1000	2300	50.0	10.0	0	30.0	75	10.0	Clear
1000	2400	49.0	10.0	0	30.0	75	10.0	Clear
1000	2500	48.0	10.0	0	30.0	75	10.0	Clear
1000	2600	47.0	10.0	0	30.0	75	10.0	Clear
1000	2700	46.0	10.0	0	30.0	75	10.0	Clear
1000	2800	45.0	10.0	0	30.0	75	10.0	Clear
1000	2900	44.0	10.0	0	30.0	75	10.0	Clear
1000	3000	43.0	10.0	0	30.0	75	10.0	Clear
1000	3100	42.0	10.0	0	30.0	75	10.0	Clear
1000	3200	41.0	10.0	0	30.0	75	10.0	Clear
1000	3300	40.0	10.0	0	30.0	75	10.0	Clear
1000	3400	39.0	10.0	0	30.0	75	10.0	Clear
1000	3500	38.0	10.0	0	30.0	75	10.0	Clear
1000	3600	37.0	10.0	0	30.0	75	10.0	Clear
1000	3700	36.0	10.0	0	30.0	75	10.0	Clear
1000	3800	35.0	10.0	0	30.0	75	10.0	Clear
1000	3900	34.0	10.0	0	30.0	75	10.0	Clear
1000	4000	33.0	10.0	0	30.0	75	10.0	Clear
1000	4100	32.0	10.0	0	30.0	75	10.0	Clear
1000	4200	31.0	10.0	0	30.0	75	10.0	Clear
1000	4300	30.0	10.0	0	30.0	75	10.0	Clear
1000	4400	29.0	10.0	0	30.0	75	10.0	Clear
1000	4500	28.0	10.0	0	30.0	75	10.0	Clear
1000	4600	27.0	10.0	0	30.0	75	10.0	Clear
1000	4700	26.0	10.0	0	30.0	75	10.0	Clear
1000	4800	25.0	10.0	0	30.0	75	10.0	Clear
1000	4900	24.0	10.0	0	30.0	75	10.0	Clear
1000	5000	23.0	10.0	0	30.0	75	10.0	Clear
1000	5100	22.0	10.0	0	30.0	75	10.0	Clear
1000	5200	21.0	10.0	0	30.0	75	10.0	Clear

[illegible]

[illegible]

[illegible]

Date	Temperature		Relative Humidity		Wind		Clouds		Precipitation		Soil Moisture		Plant Growth	
	Max	Min	Max	Min	Dir	Spd	Low	High	0-10 cm	10-20 cm	0-10 cm	10-20 cm	Height	Weight
1955-01-01	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-02	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-03	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-04	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-05	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-06	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-07	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-08	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-09	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-10	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-11	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-12	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-13	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-14	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-15	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-16	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-17	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-18	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-19	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-20	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-21	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-22	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-23	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-24	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-25	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-26	51.17	41.11	72.11	41.11	10	10	10	10	10	10	10	10	10	10
1955-01-27	51.17	41.11</												

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Ref. no.: 17568,000

SECRET

15-00 44500, 44500 & 44500

DATE	DESCRIPTION	AMOUNT	BALANCE
1950-01-01	OPENING BALANCE	100.00	100.00
1950-01-15	PAYROLL	25.00	75.00
1950-01-30	RENT	15.00	60.00
1950-02-15	PAID TO BANK	30.00	30.00
1950-02-28	CLOSING BALANCE	30.00	30.00

[illegible]

21477	4.60	40
27117	5.65	50
26777	6.21	60
27777	6.65	70
31777	6.55	80
27177	6.94	90

	1978	1979
10/17	8.96	100
10/17	5.15	100
10/17	2.07	100
10/17	0.04	100
10/17	7.94	100
10/17	10.11	100
10/17	2.70	100
10/17	10.24	100

87

PLASMA AMINO ACIDS
AMINO-ACAMINOTRAT P09F-34

1147 MONDAY, 01/10/88

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE
PL500	10	2.37400000	0.63667831	1.35000000	3.20000000	0.20261908	23.7400000	0.4122667
PL501	9	2.31200000	0.58067200	1.05000000	3.10000000	0.26371109	20.8000000	0.34277000
PL502	9	2.00000000	1.07873523	1.25000000	3.20000000	0.47309610	18.4500000	1.11910000
PL503	9	2.16000000	0.40210095	1.70000000	2.60000000	0.21566612	19.4000000	0.20221000
PL504	9	2.20000000	0.87659560	1.45000000	3.50000000	0.2922551	11.4000000	0.76873700
PL50120	9	2.20000000	0.49361054	1.00000000	3.00000000	0.20762712	11.4000000	0.24350000
PL50150	9	2.71000000	1.25000760	1.40000000	4.20000000	0.35941308	13.3000000	1.56822000

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE
PL500	4	2.40166667	0.84421164	1.50000000	3.91000000	0.36664077	14.4100000	0.71260067
PL5030	3	1.93666667	0.67531163	1.07000000	2.50000000	0.37834435	5.81000000	0.42941111
PL5043	3	2.63333333	1.30003324	1.12000000	4.20000000	0.91790220	7.90000000	2.32761111
PL5050	3	1.80000000	0.44337093	1.47000000	2.33000000	0.25540817	5.52000000	0.19370111
PL5050	3	2.67666667	1.49165450	1.70000000	4.23000000	0.86124716	7.80000000	2.22501111
PL50120	3	2.01000000	0.90706476	1.00000000	2.93000000	0.52471370	6.03000000	0.82440000
PL50150	3	2.36333333	1.52100810	1.05000000	4.03000000	0.87020574	7.09000000	2.31371111

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE
PL500	0	2.40000000	1.05165553	0.75000000	4.10000000	0.37411001	10.0200000	1.1071670
PL5030	4	2.16000000	0.30061354	1.77000000	2.60000000	0.15030077	8.64000000	0.14406657
PL5043	4	2.18500000	1.42652250	0.72000000	3.50000000	0.71326129	8.74000000	2.01496657
PL5050	4	2.26750000	0.35565067	1.00000000	2.50000000	0.17802033	9.07000000	0.12649167
PL5050	4	2.29000000	0.43421006	0.37000000	3.47000000	0.72171093	9.16000000	2.01466667
PL50120	4	2.30250000	0.22579101	2.10000000	2.40000000	0.11270591	9.33000000	0.09001667
PL50150	4	2.24250000	1.30670126	0.62000000	3.50000000	0.65330063	9.07000000	1.70767000

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE
PL500	10	31.76200000	5.34049067	22.40000000	41.00000000	1.75205090	317.6200000	30.69710667
PL5030	9	30.70600000	0.62720950	20.70000000	41.00000000	3.05023224	275.3000000	74.42970000
PL5043	9	26.02000000	4.75090709	19.00000000	30.70000000	2.12471175	234.1000000	72.27200000
PL5050	9	24.29000000	3.50140960	10.00000000	20.45000000	1.50791026	218.4500000	12.70650000
PL5050	9	23.44000000	3.50320417	20.00000000	29.00000000	1.56071011	211.7000000	12.27300000
PL50120	9	22.37200000	3.15339017	10.00000000	27.70000000	1.41024253	200.0000000	9.43920000
PL50150	9	26.00000000	2.43059590	24.20000000	30.40000000	1.00670005	236.9000000	9.07000000

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE
PL500	0	20.06666667	4.30029232	23.10000000	33.30000000	1.70232933	123.2000000	10.27466667
PL5030	3	20.53333333	1.43643070	24.00000000	27.00000000	0.80203269	79.60000000	2.06331111
PL5043	3	20.30000000	0.60900466	24.00000000	36.00000000	3.01535001	67.90000000	43.00000000
PL5050	3	23.00000000	1.30000000	23.70000000	26.30000000	0.75053535	75.00000000	1.00000000
PL5050	3	24.93333333	1.62070456	23.00000000	26.00000000	0.94044907	74.00000000	2.63331111
PL50120	3	22.36666667	4.03710060	17.30000000	20.40000000	2.07727050	67.10000000	21.50331111
PL50150	3	23.36666667	2.05090422	23.10000000	20.70000000	1.65050012	70.70000000	0.17331111

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE
PL301A	4	30.0000000	6.50626872	20.7000000	40.0000000	2.50031574	204.4000000	42.3142000
PL301B	4	41.0000000	5.27073694	35.0000000	48.0000000	2.65087847	164.4000000	27.8794111
PL3041	4	33.7500000	8.70837000	22.0000000	43.0000000	4.35437928	135.0000000	75.8425000
PL3060	4	36.4500000	6.53834842	29.0000000	44.0000000	3.26917421	145.8000000	42.7499000
PL3090	4	28.2500000	8.34703482	17.0000000	35.2000000	4.17392781	112.0000000	69.6866667
PL3012A	4	30.3750000	4.16843706	26.0000000	35.2000000	2.04621648	121.5000000	17.3750000
PL3015A	4	20.0000000	10.930630720	16.2000000	37.0000000	6.02918365	115.2000000	101.0000000

[illegible]

				MINI-ANALYSE	POST-50			
PL50N	6	7.00000000	1.53711055	3.05000000	0.70000000	42.40000000	3.91936000	27.64
PL50B	3	7.10333333	0.76607070	6.07000000	0.15246120	21.10000000	0.00073333	1.71
PL50C	3	6.16000000	0.60634761	5.00000000	6.90000000	10.40000000	0.49400000	11.00
PL50D	3	6.00333333	0.00375017	6.23000000	7.70000000	0.46350000	0.00000000	11.00
PL50E	3	6.21000000	0.23000000	5.00000000	6.74000000	0.30000000	0.00000000	0.00
PL50F	3	6.10000000	0.10000000	4.25000000	7.31000000	0.75610000	0.75610000	21.10
PL50G	3	0.24333333	2.91151736	5.61000000	11.37000000	1.00000000	0.47603333	37.32

		AMINO-ACID-IMP	NOSE-100	
PL500	0	7.80300000	3.30338707	3.81000000
PL5010	4	6.40250000	2.40251461	3.40000000
PL5045	4	6.40750000	3.40651020	3.30000000
PL5060	4	6.55500000	0.55505507	3.75000000
PL5090	4	3.70500000	3.039065347	3.15000000
PL50120	0	6.00750000	1.66500000	4.00000000
PL50130	4	3.40000000	3.33073175	2.15000000
				10.75100000
				13.00000000
				12.15000000
				12.00000000
				7.00000000
				11.10000000
				7.40000000
				0.50000000
				1.76535307
				63.10000000
				10.9137143
				0.54100000
				15.92710000
				14.70000000
				14.70000000
				14.70000000
				1.12442500
				12.40000000
				44.70000000

PL500	10	3.07700000	2.33702400	1.23000000	0.04000000	0.73019330	30.7700000	3.7400111	01.04
PL5010	3	3.06000000	1.13403763	2.20000000	4.70000000	0.50715481	10.3200000	1.2600100	30.77
PL5043	5	4.00200000	3.00417397	1.13000000	9.00000000	1.01103300	24.2100000	12.0000000	74.41
PL5050	3	3.01000000	1.01007760	2.00000000	7.00000000	0.03050336	10.3700000	3.0000000	49.00
PL5090	3	3.01200000	2.00095600	1.24000000	7.30000000	1.10300062	17.0000000	7.0000000	77.00
PL50120	3	3.00000000	0.01000734	2.01000000	4.00000000	0.30001792	17.2000000	0.7200000	24.74
PL50130	3	2.70000000	1.60342117	0.77000000	4.24000000	0.74300000	11.3400000	2.7000000	73.10

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE
AMINO-ASPARAGINE DOSE-100								
PL500	4	2.9066667	1.0963034	1.5000000	4.2000000	0.5482011	23.9000000	3.0834447
PL5010	3	2.7733333	1.7635030	1.4200000	4.7000000	1.0182044	8.3200000	3.1102333
PL5043	3	4.2300000	1.9470747	2.4200000	6.2000000	1.1241441	12.6000000	3.7910000
PL5060	3	2.6566667	1.4000192	1.3000000	4.2700000	0.4540359	7.9700000	2.1922111
PL5090	3	4.3633333	1.0047360	2.0000000	6.5100000	1.0001530	13.0000000	3.3723111
PL50120	3	2.0300000	1.2307404	1.4000000	4.0200000	1.0021209	6.0900000	3.0619000
PL50150	3	4.0000000	1.1153026	2.7300000	4.0200000	0.6430202	12.0000000	1.2430000
AMINO-ASPARAGINE DOSE-34								
PL500	4	2.4630000	1.1706917	0.0000000	4.1000000	0.4167304	10.7200000	1.3001470
PL5010	4	3.1775000	0.6510032	2.0000000	4.0000000	0.3264106	12.7100000	0.4240167
PL5043	4	1.0125000	2.0050400	0.7700000	4.0000000	1.0225244	7.2500000	4.1022330
PL5060	4	2.7175000	1.3150130	1.1200000	3.9700000	0.6535000	10.0700000	1.7204047
PL5090	4	1.5050000	2.0000000	0.0000000	4.0000000	1.0000000	0.3000000	4.0000000
PL50120	4	2.3075000	0.0035020	1.1000000	3.1200000	0.4310251	9.3000000	0.1400167
PL50150	4	2.6375000	2.2071050	0.7000000	0.9000000	1.1005253	10.5000000	5.2700167
AMINO-ASPARAGINE DOSE-50								
PL500	10	5.1000000	3.3503030	1.2000000	9.7000000	1.0010070	51.0000000	11.2700000
PL5010	5	4.5000000	4.3304470	2.2000000	12.2000000	1.9402120	22.0000000	10.0721000
PL5043	5	3.2500000	2.0215021	0.0000000	7.7000000	1.1724034	10.2700000	6.0723000
PL5060	5	3.1700000	1.0716402	1.0000000	9.0500000	0.7020622	15.0700000	2.4000000
PL5090	5	2.5000000	1.5132102	0.7200000	4.2700000	0.6703103	12.9300000	2.2000000
PL50120	5	1.0500000	0.5035007	1.2200000	2.3200000	0.2430060	0.2000000	0.2000000
PL50150	5	3.5000000	2.3742033	0.0000000	5.4000000	1.0617701	17.0500000	5.0300000
AMINO-ASPARAGINE DOSE-50								
PL500	6	3.0000000	1.4077407	1.3000000	0.7700000	0.6110312	10.1000000	2.2430000
PL5010	3	2.7100000	0.0727000	1.0000000	3.1700000	0.3004200	0.1500000	0.4200111
PL5043	3	2.0500000	1.0000000	1.0000000	5.1000000	1.0000000	0.0000000	3.0000000
PL5060	3	2.0700000	0.2004203	2.0000000	3.5000000	0.4500100	0.0000000	0.0000000
PL5090	3	2.6333333	0.0000722	1.2000000	3.5200000	0.4020645	7.0700000	1.4000000
PL50120	3	1.0000000	0.0201505	1.0000000	2.0000000	0.4701324	5.2200000	0.0000000
PL50150	3	2.3000000	0.5334673	1.7000000	3.4000000	0.5500463	7.0200000	0.0000000
AMINO-ASPARAGINE DOSE-100								
PL500	8	1.0350000	0.7426010	0.0000000	2.0000000	0.2625402	13.0000000	0.5914214
PL5010	4	2.3250000	1.3457216	0.0000000	3.0700000	0.6720001	0.3000000	1.0000000
PL5043	4	1.0075000	1.2253764	0.0000000	3.0000000	0.4126324	7.0000000	1.0000000
PL5060	4	1.2025000	0.3400307	0.0000000	1.7000000	0.1701036	5.0000000	0.1100000
PL5090	4	1.0025000	0.4004346	0.4000000	1.4000000	0.3002170	4.2000000	0.0000000
PL50120	4	1.0000000	0.2700000	0.7000000	1.4000000	0.1370000	4.0000000	0.0000000
PL50150	4	1.0075000	1.0241010	0.0000000	3.0000000	0.7120000	0.0000000	2.0000000

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PLASMA AMINO ACIDS
AMINO-CITRULLINE DMS-034

11149 MONDAY, OCTOBER 1, 1980

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE
----- AMINO-CITRULLINE DMS-034 -----								
PL500P	10	2.34900000	0.07800000	1.10000000	4.30000000	0.02400000	23.49000000	0.00176400
PL503P	9	1.76000000	1.06600000	0.35000000	2.80000000	0.35000000	15.84000000	1.22500000
PL504P	9	2.37000000	1.16600000	1.00000000	4.02000000	0.38000000	21.33000000	1.44400000
PL506P	9	1.76000000	0.45347000	1.00000000	2.59000000	0.15000000	15.84000000	0.02250000
PL508P	9	2.07000000	1.00211000	0.41000000	3.43000000	0.33000000	18.63000000	1.17000000
PL5012P	9	1.73000000	0.06670000	0.57000000	2.00000000	0.02200000	15.57000000	0.00048400
PL5015P	9	2.13000000	1.30841000	0.44000000	4.57000000	0.44000000	19.17000000	1.93640000
----- AMINO-CITRULLINE DMS-034 -----								
PL500P	0	2.54196667	0.07924713	1.73000000	3.51000000	0.27730140	19.27000000	0.00176400
PL503P	3	1.40000000	0.00000000	1.40000000	1.50000000	0.00000000	4.20000000	0.00000000
PL504P	3	2.72000000	0.39024179	2.02000000	2.80000000	0.19000000	8.16000000	0.03610000
PL506P	3	1.73000000	0.43401000	1.02000000	2.02000000	0.27000000	5.19000000	0.07290000
PL509P	3	2.37333333	0.07300771	2.31000000	2.41000000	0.01700000	7.12000000	0.00028900
PL5012P	3	2.00333333	0.00000000	1.00000000	2.00000000	0.00000000	6.00000000	0.00000000
PL5015P	3	2.13000000	0.00114190	1.10000000	2.71000000	0.51400000	6.39000000	0.00026600
----- AMINO-CITRULLINE DMS-034 -----								
PL500P	0	2.09300000	0.52920023	1.02000000	3.17000000	0.10713070	10.76000000	0.01142000
PL503P	4	1.06500000	0.70970522	1.00000000	2.67000000	0.35400000	10.66000000	0.12530000
PL504P	4	1.32250000	0.20124732	0.00000000	1.52000000	0.14620000	5.30000000	0.02130000
PL506P	4	0.94000000	0.14352700	0.41000000	1.14000000	0.07170000	3.76000000	0.00507600
PL509P	4	0.04500000	0.50073401	0.00000000	1.30000000	0.20334000	0.18000000	0.04131600
PL5012P	4	1.00750000	0.20742400	0.00000000	1.32000000	0.10312000	4.12000000	0.01064400
PL5015P	4	1.20000000	0.53333341	0.00000000	1.90000000	0.27000000	5.04000000	0.07290000
----- AMINO-CITRULLINE DMS-034 -----								
PL500P	10	0.27000000	2.59029117	3.63000000	11.30000000	0.02195530	27.00000000	0.00048400
PL503P	5	0.07400000	2.20717493	7.03000000	12.60000000	0.30707000	3.70000000	0.09420000
PL504P	5	0.10000000	3.31775070	4.27000000	12.57000000	1.40370000	40.12000000	1.96640000
PL506P	9	10.00000000	1.07332000	7.01000000	12.31000000	0.33770000	90.00000000	0.11390000
PL509P	3	7.30000000	2.00553000	4.75000000	10.01000000	0.93200000	21.90000000	0.86760000
PL5012P	9	0.01000000	1.14500000	0.01000000	11.23000000	0.31210000	0.09000000	0.09720000
PL5015P	9	0.00000000	3.50254344	5.32000000	14.50000000	1.50320000	45.32000000	2.25920000
----- AMINO-CITRULLINE DMS-034 -----								
PL500P	0	7.40033333	1.77047337	4.70000000	9.62000000	0.72700000	44.00000000	0.52840000
PL503P	3	0.00000000	1.36420400	7.71000000	10.30000000	0.70700000	26.40000000	0.50000000
PL504P	3	6.50000000	0.00000000	7.00000000	7.00000000	0.00000000	19.50000000	0.00000000
PL506P	3	0.00000000	0.33000000	0.17000000	0.00000000	0.10000000	0.51000000	0.01000000
PL509P	3	0.30000000	2.71020000	5.01000000	11.20000000	1.50900000	24.90000000	2.27610000
PL5012P	3	0.00000000	2.00000000	6.20000000	11.20000000	1.00000000	6.20000000	1.00000000
PL5015P	3	0.00000000	1.33210000	7.70000000	10.20000000	0.70220000	20.40000000	0.49300000

PLASMA AMINO ACIDS
AMINO-GLUTAMATE INST-100

11149 MONDAY, OCTOBER 7, 1968

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
PL500	8	0.00075000	2.00010150	3.07000000	10.00000000	0.02000000	54.47000000	0.24135100	15.7245
PL501	4	0.00290000	3.10000000	4.01000000	12.00000000	1.57491347	39.21000000	9.22220107	15.7245
PL502	4	2.00000000	2.00000000	4.00000000	10.00000000	1.50481103	20.20000000	7.50000000	15.7245
PL503	4	2.00000000	1.31000000	0.40000000	9.40000000	0.65974743	30.30000000	1.24100000	15.7245
PL504	4	0.00000000	3.10000000	2.00000000	10.00000000	1.57320100	27.20000000	9.22220107	15.7245
PL50120	4	0.00290000	1.53200104	0.00000000	0.10000000	0.38621027	27.20000000	2.30000000	15.7245
PL50150	4	0.00000000	3.27270132	2.12000000	9.07000000	1.63610000	24.00000000	10.21000000	15.7245

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
PL500	16	47.71300000	0.19000000	35.00000000	60.00000000	2.00000000	477.13000000	0.19000000	17.1700
PL501	9	44.00000000	0.40107000	39.70000000	50.00000000	2.00000000	223.40000000	41.00000000	14.4000
PL502	9	49.00000000	12.00000000	37.00000000	60.00000000	3.92701400	220.40000000	150.00000000	27.0000
PL503	9	46.00000000	1.20000000	38.00000000	50.00000000	2.31500000	231.00000000	32.00000000	11.1000
PL504	9	47.00000000	0.30200100	36.20000000	50.00000000	3.73000000	230.20000000	70.00000000	17.7000
PL50120	9	46.00000000	3.04202100	41.00000000	52.00000000	1.76100000	233.00000000	19.00000000	14.4000
PL50150	9	46.00000000	11.00000000	33.00000000	60.00000000	3.00000000	233.00000000	120.00000000	24.0000

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
PL500	8	43.01000000	7.17000000	30.00000000	50.00000000	2.92701400	242.00000000	0.10000000	14.4000
PL501	3	42.00000000	0.01100000	30.00000000	40.00000000	3.47000000	120.00000000	0.00000000	14.4000
PL502	3	30.00000000	0.01100000	27.00000000	40.00000000	3.00000000	110.00000000	0.00000000	14.4000
PL503	3	30.00000000	0.01100000	27.00000000	40.00000000	3.00000000	110.00000000	0.00000000	14.4000
PL504	3	30.00000000	0.01100000	27.00000000	40.00000000	3.00000000	110.00000000	0.00000000	14.4000
PL50120	3	30.00000000	0.01100000	27.00000000	40.00000000	3.00000000	110.00000000	0.00000000	14.4000
PL50150	3	30.00000000	0.01100000	27.00000000	40.00000000	3.00000000	110.00000000	0.00000000	14.4000

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
PL500	8	30.00000000	12.00000000	10.00000000	50.00000000	4.50000000	400.00000000	16.00000000	29.4000
PL501	4	30.00000000	10.00000000	10.00000000	50.00000000	7.12701400	210.00000000	20.00000000	29.4000
PL502	4	30.00000000	0.50000000	10.00000000	50.00000000	4.77000000	102.00000000	91.00000000	29.4000
PL503	4	30.00000000	0.50000000	10.00000000	50.00000000	4.77000000	102.00000000	91.00000000	29.4000
PL504	4	30.00000000	0.50000000	10.00000000	50.00000000	4.77000000	102.00000000	91.00000000	29.4000
PL50120	4	30.00000000	0.50000000	10.00000000	50.00000000	4.77000000	102.00000000	91.00000000	29.4000
PL50150	4	30.00000000	0.50000000	10.00000000	50.00000000	4.77000000	102.00000000	91.00000000	29.4000

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
PL500	16	30.00000000	0.00000000	10.00000000	50.00000000	2.90701400	300.00000000	0.00000000	20.0000
PL501	9	30.00000000	13.00000000	10.00000000	50.00000000	5.00000000	270.00000000	10.00000000	14.4000
PL502	9	30.00000000	7.00000000	10.00000000	50.00000000	3.20000000	270.00000000	30.00000000	14.4000
PL503	9	30.00000000	7.00000000	10.00000000	50.00000000	3.20000000	270.00000000	30.00000000	14.4000
PL504	9	30.00000000	7.00000000	10.00000000	50.00000000	3.20000000	270.00000000	30.00000000	14.4000
PL50120	9	30.00000000	7.00000000	10.00000000	50.00000000	3.20000000	270.00000000	30.00000000	14.4000
PL50150	9	30.00000000	7.00000000	10.00000000	50.00000000	3.20000000	270.00000000	30.00000000	14.4000

PLA9NA AMINO ACIDUS

11143 HUNTER, COTTON 11, 1977

VARIANT	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	TOTAL
AMINO-HYDROXYPROLINE									
PL5010	10	1.3000000	0.42021000	0.9100000	2.1000000	0.13200424	13.0000000	0.17090222	24
PL5011	9	1.3020000	0.42030000	0.9000000	2.1000000	0.27753198	7.9000000	0.38112000	19.791
PL5012	9	1.3040000	0.42031221	0.9000000	2.2000000	0.26910221	6.9200000	0.36720000	19.791
PL5013	9	1.3200000	0.53454400	0.9000000	2.2000000	0.24000000	7.0000000	0.30752000	19.791
PL5014	9	1.4640000	0.9700000	0.9000000	2.3000000	0.26213063	7.3200000	0.34370000	20.792
PL5015	9	1.1000000	0.20213472	0.7700000	1.5100000	0.12617440	5.9000000	0.07960000	20.792
PL5016	9	1.1540000	0.29373214	0.9000000	1.4600000	0.11307240	5.7700000	0.06430000	21.047
AMINO-HYDROXYPROLINE									
PL5017	6	1.9030000	0.43704701	1.3000000	2.7000000	0.17879429	11.7000000	0.17171000	22.702
PL5018	3	1.4100000	0.0602400	1.3000000	0.9000000	1.77104401	10.2000000	0.41000000	22.702
PL5019	3	1.2000000	0.12503057	1.3000000	1.3000000	0.87264032	3.6200000	0.19011111	10.411
PL5020	3	1.1000000	0.27037707	1.5000000	0.4000000	1.60733043	0.5000000	7.75911111	07.151
PL5021	3	1.3200000	0.43000000	0.9000000	1.7000000	0.24020062	3.0000000	0.10400000	11.791
PL5022	3	1.2900000	0.37071719	1.3000000	0.7000000	1.36073421	0.7000000	0.62000000	12.793
PL5023	3	1.3000000	0.34317291	1.0000000	1.7000000	0.19010211	4.1000000	0.11773333	24.744
AMINO-HYDROXYPROLINE									
PL5024	4	1.3000000	0.59102010	0.7000000	2.5000000	0.20000001	11.1200000	0.34931420	42.700
PL5025	4	1.6270000	0.21030422	1.4000000	1.9000000	0.10010211	0.9100000	0.04709107	11.410
PL5026	4	1.4070000	0.53400210	0.9000000	2.0000000	0.26704109	5.0000000	0.20119033	33.000
PL5027	4	1.3270000	0.20704623	1.2000000	1.7000000	0.10391111	6.0000000	0.04327500	11.410
PL5028	4	1.1600000	0.47307503	0.9000000	1.8000000	0.23653732	4.0000000	0.22100000	40.742
PL5029	4	1.3270000	0.30126001	1.0000000	1.8000000	0.19003490	5.3000000	0.14300000	29.775
PL5030	4	1.0920000	0.46990113	0.9000000	1.7000000	0.23400037	4.3000000	0.22000000	43.000
AMINO-HYDROXYPROLINE									
PL5031	10	1.4910000	2.43751000	0.9200000	11.0000000	0.7700110	70.0000000	5.04140000	31.000
PL5032	9	0.1500000	0.77003070	0.0000000	7.0000000	0.30440207	30.7000000	0.06002000	12.000
PL5033	9	0.5020000	2.00200000	0.4000000	11.2000000	1.20010400	32.0000000	0.42000000	40.000
PL5034	9	0.6220000	1.00314649	0.0000000	10.0000000	0.06000000	33.1000000	0.33000000	29.000
PL5035	9	0.6340000	3.06207003	0.4700000	13.5000000	1.03000000	30.1700000	13.41000000	47.000
PL5036	9	0.5600000	1.45130554	0.0000000	9.3000000	0.60007033	32.0000000	2.10000000	22.000
PL5037	9	0.2000000	2.10321000	0.0000000	10.2000000	0.07727030	30.4000000	4.77000000	20.000
AMINO-HYDROXYPROLINE									
PL5038	0	5.3000000	1.47324401	3.0000000	7.1000000	0.00220000	33.0000000	0.17000000	20.790
PL5039	3	4.7000000	0.90200000	4.0000000	5.2000000	0.29027070	10.2000000	0.25000000	10.700
PL5040	3	5.0000000	1.72370002	3.0000000	7.2000000	0.90320017	17.3000000	2.01000000	20.400
PL5041	3	4.0030000	0.00000000	3.0000000	5.0000000	0.37433071	13.0000000	0.40000000	14.000
PL5042	3	5.0030000	1.30747001	4.0000000	6.0000000	0.00000000	17.0000000	1.00000000	21.713
PL5043	3	5.2030000	1.00000000	4.0000000	6.0000000	0.01250000	17.2000000	1.12000000	20.773
PL5044	3	0.0000000	1.00710001	0.0000000	2.0000000	1.00000000	10.2000000	3.41000000	30.700

PLASMA AMINO ACIDS AMINO-LEUCINE CONFIRM

11144 MONDAY, OCT 10 1977

TEST	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	%M	VALUEN
P15000	6.94123000	1.91663722	4.43000000	10.97000000	0.67761370	52.65300000	1.07440001
P15010	6.38720000	1.29245030	4.30000000	8.13000000	0.74972069	24.23000000	2.49669162
P15040	7.46730000	1.71171736	5.82000000	9.41000000	0.63371808	30.67000000	2.22229162
P15060	6.05200000	1.53303020	4.70000000	8.13000000	0.76660914	24.10000000	2.33296667
P15090	6.82230000	0.90271350	5.11000000	7.23000000	0.45133673	24.00000000	0.14801007
P150120	5.98230000	1.08633003	4.00000000	7.44000000	0.74112946	23.00000000	1.10130133
P150130	7.71250000	1.41001073	6.45000000	9.56000000	0.70343017	30.83000000	1.90860162

AMINO-LEUCINE POST-34

TEST	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	%M	VALUEN
P15000	13.15400000	2.15714420	10.03000000	16.76000000	0.66214009	131.54300000	4.63327111
P15010	12.13000000	1.44233210	10.10000000	14.10000000	0.64311540	60.79000000	2.80820000
P15020	11.65200000	1.96846570	7.73000000	16.48000000	1.72471901	60.26000000	19.74072000
P15040	11.50800000	1.26841210	9.03000000	13.36000000	0.56720000	57.90000000	1.00820000
P15090	13.48400000	4.48160272	9.02000000	18.02000000	2.80420044	67.42000000	20.00710000
P150120	11.81600000	1.90745006	9.74000000	14.36000000	0.65406440	59.00000000	3.64210000
P150130	14.40400000	6.15053007	8.12000000	24.10000000	2.75060103	72.47000000	37.02000000

AMINO-LEUCINE POST-30M

TEST	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	%M	VALUEN
P15000	11.03666667	3.78026305	6.34000000	17.00000000	1.118062007	71.02000000	13.00194062
P15010	9.82333333	2.74780510	7.80000000	12.00000000	1.39644660	20.62000000	7.33843333
P15040	12.33000000	4.49320000	7.80000000	16.00000000	2.59330007	37.05000000	20.20000000
P15060	9.70333333	2.84810192	7.24000000	12.81000000	1.63973000	29.11000000	0.00000000
P15090	10.03333333	1.11920234	9.26000000	11.30000000	0.64640043	30.04000000	1.23373333
P150120	10.87066667	4.86324093	6.32000000	14.30000000	2.34934133	32.03000000	10.50103333
P150130	10.00333333	3.02330137	6.96000000	14.10000000	2.24730007	31.01000000	14.01263333

AMINO-LEUCINE POST-100

TEST	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	%M	VALUEN
P15000	10.42620000	2.52703031	6.00000000	14.53000000	0.80344225	81.01000000	6.38501200
P15010	8.91500000	2.84504000	6.22000000	11.02000000	1.02292445	35.63000000	4.10222000
P15040	11.22500000	3.62497241	8.33000000	16.37000000	1.01240021	44.91000000	13.14042000
P15060	7.90000000	0.81600023	7.11000000	8.03000000	0.48004412	31.00000000	0.00000000
P15090	10.16000000	2.54203160	7.20000000	13.32000000	1.27391704	40.04000000	0.00146667
P150120	8.42000000	2.42700052	5.60000000	11.51000000	1.23043030	33.00000000	6.11326007
P150130	11.74000000	2.30502101	9.01000000	14.60000000	1.19701050	46.00000000	9.73000000

AMINO-LEUCINE POST-34

TEST	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	%M	VALUEN
P15000	14.40100000	3.30800442	9.40000000	21.20000000	1.00267210	140.01000000	11.70272111
P15010	14.42700000	2.807474517	10.74000000	18.26000000	1.27060003	72.30000000	0.14093000
P15040	11.50000000	1.90201735	8.43000000	12.90000000	0.63000002	37.50000000	3.01267000
P15060	12.30000000	0.72779110	11.01000000	13.73000000	0.32347011	62.62000000	0.29000000
P15090	11.80000000	1.87819310	9.06000000	14.64000000	0.61637671	59.00000000	0.00263000
P150120	12.56000000	2.73000002	9.07000000	15.00000000	1.00127222	62.02000000	9.01253000
P150130	11.32000000	2.30000000	8.90000000	14.00000000	1.00407534	50.64000000	9.00707000

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE
PL503	4	15.21166667	1.776333333	11.09000000	16.93000000	0.71702020	91.27000000	3.06477667
PL5032	3	12.42333333	2.40300449	10.09000000	15.20000000	1.30077641	37.27000000	5.70441333
PL5043	3	14.35000000	0.57010602	13.01000000	14.90000000	0.33010632	43.05000000	0.33430000
PL5060	3	12.13666667	2.39323201	10.72000000	15.00000000	1.40035036	36.41000000	6.73233333
PL5090	3	14.10666667	1.10071070	12.03000000	15.10000000	0.60037240	42.30000000	1.41303333
PL50120	3	13.43333333	3.22541907	10.00000000	16.40000000	1.06219700	40.30000000	10.40333333
PL50130	3	13.36333333	2.02404536	10.43000000	15.90000000	1.03046347	40.60000000	7.07323333
PL509	4	12.06750000	3.09393305	0.67000000	20.70000000	1.50702672	101.30000000	15.03350200
PL5030	4	12.05000000	4.70775322	0.90000000	19.33000000	2.30307701	51.00000000	27.92260000
PL5043	4	9.43000000	3.90073016	5.76000000	14.44000000	1.99262000	37.72000000	13.00270000
PL5060	4	10.40750000	2.30004361	7.01000000	13.10000000	1.0002101	41.00000000	3.74107500
PL5090	4	7.61750000	2.39309367	5.25000000	9.74000000	1.19732700	30.47000000	5.73620167
PL50120	4	9.13300000	2.02007100	6.70000000	13.21000000	1.01400750	36.36000000	0.00310000
PL50130	4	7.00750000	3.13220750	4.70000000	10.05000000	1.50614375	31.47000000	9.01023000
PL509	4	12.06750000	3.09393305	0.67000000	20.70000000	1.50702672	101.30000000	15.03350200
PL5030	4	12.05000000	4.70775322	0.90000000	19.33000000	2.30307701	51.00000000	27.92260000
PL5043	4	9.43000000	3.90073016	5.76000000	14.44000000	1.99262000	37.72000000	13.00270000
PL5060	4	10.40750000	2.30004361	7.01000000	13.10000000	1.0002101	41.00000000	3.74107500
PL5090	4	7.61750000	2.39309367	5.25000000	9.74000000	1.19732700	30.47000000	5.73620167
PL50120	4	9.13300000	2.02007100	6.70000000	13.21000000	1.01400750	36.36000000	0.00310000
PL50130	4	7.00750000	3.13220750	4.70000000	10.05000000	1.50614375	31.47000000	9.01023000
PL509	4	12.06750000	3.09393305	0.67000000	20.70000000	1.50702672	101.30000000	15.03350200
PL5030	4	12.05000000	4.70775322	0.90000000	19.33000000	2.30307701	51.00000000	27.92260000
PL5043	4	9.43000000	3.90073016	5.76000000	14.44000000	1.99262000	37.72000000	13.00270000
PL5060	4	10.40750000	2.30004361	7.01000000	13.10000000	1.0002101	41.00000000	3.74107500
PL5090	4	7.61750000	2.39309367	5.25000000	9.74000000	1.19732700	30.47000000	5.73620167
PL50120	4	9.13300000	2.02007100	6.70000000	13.21000000	1.01400750	36.36000000	0.00310000
PL50130	4	7.00750000	3.13220750	4.70000000	10.05000000	1.50614375	31.47000000	9.01023000
PL509	4	12.06750000	3.09393305	0.67000000	20.70000000	1.50702672	101.30000000	15.03350200
PL5030	4	12.05000000	4.70775322	0.90000000	19.33000000	2.30307701	51.00000000	27.92260000
PL5043	4	9.43000000	3.90073016	5.76000000	14.44000000	1.99262000	37.72000000	13.00270000
PL5060	4	10.40750000	2.30004361	7.01000000	13.10000000	1.0002101	41.00000000	3.74107500
PL5090	4	7.61750000	2.39309367	5.25000000	9.74000000	1.19732700	30.47000000	5.73620167
PL50120	4	9.13300000	2.02007100	6.70000000	13.21000000	1.01400750	36.36000000	0.00310000
PL50130	4	7.00750000	3.13220750	4.70000000	10.05000000	1.50614375	31.47000000	9.01023000
PL509	4	12.06750000	3.09393305	0.67000000	20.70000000	1.50702672	101.30000000	15.03350200
PL5030	4	12.05000000	4.70775322	0.90000000	19.33000000	2.30307701	51.00000000	27.92260000
PL5043	4	9.43000000	3.90073016	5.76000000	14.44000000	1.99262000	37.72000000	13.00270000
PL5060	4	10.40750000	2.30004361	7.01000000	13.10000000	1.0002101	41.00000000	3.74107500
PL5090	4	7.61750000	2.39309367	5.25000000	9.74000000	1.19732700	30.47000000	5.73620167
PL50120	4	9.13300000	2.02007100	6.70000000	13.21000000	1.01400750	36.36000000	0.00310000
PL50130	4	7.00750000	3.13220750	4.70000000	10.05000000	1.50614375	31.47000000	9.01023000
PL509	4	12.06750000	3.09393305	0.67000000	20.70000000	1.50702672	101.30000000	15.03350200
PL5030	4	12.05000000	4.70775322	0.90000000	19.33000000	2.30307701	51.00000000	27.92260000
PL5043	4	9.43000000	3.90073016	5.76000000	14.44000000	1.99262000	37.72000000	13.00270000
PL5060	4	10.40750000	2.30004361	7.01000000	13.10000000	1.0002101	41.00000000	3.74107500
PL5090	4	7.61750000	2.39309367	5.25000000	9.74000000	1.19732700	30.47000000	5.73620167
PL50120	4	9.13300000	2.02007100	6.70000000	13.21000000	1.01400750	36.36000000	0.00310000
PL50130	4	7.00750000	3.13220750	4.70000000	10.05000000	1.50614375	31.47000000	9.01023000

AMINO-METANOL D05F-100

VARIANT	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	QUM	VARIANCE
PL 5000	2.01300000	0.60628205	0.55000000	2.64000000	0.19172347	20.13700000	0.16292000
PL 5001	2.03000000	0.43041594	1.67000000	2.70000000	0.19257726	19.70000000	0.10543000
PL 5002	1.43200000	0.37040078	0.56000000	2.14000000	0.25513526	7.10000000	0.15542000
PL 5003	1.73500000	0.33932000	1.37000000	2.27000000	0.15184202	0.60000000	0.11520000
PL 5004	1.40000000	0.31133303	0.92000000	1.71000000	0.13923362	7.03000000	0.09603000
PL 5005	1.59600000	0.16652327	1.43000000	1.84000000	0.07447147	7.06000000	0.02773000
PL 5010	1.33200000	0.30713067	1.10000000	1.92000000	0.17313001	7.66000000	0.14082000

AIRMO-CHITIMEINF DOSE-008

VARIANT	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	QUM	VARIANCE
PL 5006	2.01500000	0.39506613	1.41000000	2.49000000	0.16125006	12.00000000	0.19603000
PL 5007	1.01333333	0.10171194	1.60000000	1.95000000	0.10066377	0.44000000	0.03943000
PL 5008	1.76666667	0.16250331	1.44000000	1.95000000	0.09366772	5.30000000	0.02443000
PL 5009	1.71666667	0.10303146	1.50000000	1.95000000	0.10720003	5.15000000	0.03433000
PL 5010	1.07666667	0.20003952	1.71000000	2.20000000	0.16169244	5.63000000	0.07843000
PL 5011	1.49333333	0.34779470	1.10000000	1.76000000	0.20077627	4.40000000	0.12003000
PL 5012	1.74666667	0.23459104	1.56000000	2.01000000	0.13544106	5.24000000	0.05303000

AIRMO-CHITIMEINF DOSE-100

VARIANT	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	QUM	VARIANCE
PL 5000	1.73623000	0.61110004	0.94000000	2.60000000	0.21603000	13.00000000	0.17243000
PL 5001	1.69250000	0.41608033	1.37000000	2.70000000	0.20034167	6.77000000	0.17162500
PL 5002	1.30270000	0.61964371	0.80000000	2.20000000	0.30021000	5.47000000	0.30003000
PL 5003	1.47000000	0.33436507	1.20000000	1.91000000	0.16710793	5.00000000	0.11103000
PL 5004	1.70250000	0.61759619	0.61000000	2.10000000	0.30077007	5.00000000	0.30003000
PL 5010	1.41300000	0.30924640	1.15000000	1.66000000	0.15462320	5.60000000	0.09503000
PL 5011	1.13750000	0.97590406	0.50000000	1.93000000	0.30709233	4.50000000	0.33730000

AIRMO-CHITIMEINF DOSE-034

VARIANT	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	QUM	VARIANCE
PL 5000	15.52600000	0.97149331	5.27000000	20.03000000	2.52070404	155.20000000	63.74407111
PL 5001	13.50600000	0.59093001	9.50000000	10.06000000	4.27533461	87.00000000	91.30243000
PL 5002	10.13000000	5.50917050	0.50000000	20.00000000	2.30411461	50.65000000	31.35203000
PL 5003	9.70000000	3.60433001	6.70000000	14.40000000	1.61200000	40.00000000	12.00203000
PL 5004	0.01400000	3.24051197	4.77000000	11.65000000	1.43277072	44.00000000	10.75203000
PL 5010	0.03000000	1.64125772	6.20000000	11.67000000	0.02363549	40.10000000	3.30003000
PL 5011	10.06000000	4.60400032	3.94000000	14.92000000	2.00997053	50.30000000	22.04135000

AIRMO-CHITIMEINF DOSE-050

VARIANT	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	QUM	VARIANCE
PL 5000	10.55000000	2.24539124	7.00000000	13.23000000	0.01077070	63.30000000	5.04200000
PL 5001	9.32600000	1.02541150	0.12000000	10.57000000	0.70747100	37.00000000	1.90103000
PL 5002	11.74000000	6.02150095	7.50000000	10.73000000	3.07013363	35.22000000	47.90300000
PL 5003	0.93333333	2.53630194	0.05000000	10.02000000	1.40030070	26.00000000	0.41333000
PL 5004	0.04666667	3.69500232	3.10000000	12.44000000	2.13333077	27.14000000	13.65303000
PL 5010	0.70000000	1.72502174	4.75000000	7.01000000	0.00594177	20.22000000	2.07500000
PL 5011	10.73333333	4.22100373	7.54000000	15.52000000	2.43374940	32.20000000	17.02403000

PLASMA AMINO ACIDS
AMINO-PEPTIDYLAMINE DOSE-100

11443 HUNLEY, M. J. 1971

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	COEFF.
PL500	4	0.26250000	2.64300443	0.01000000	13.02000000	0.93472637	06.19000000	6.9877714	11.71
PL501	4	7.00250000	3.49247300	4.00000000	12.00000000	1.74125000	28.01000000	12.12767500	11.71
PL502	4	7.34300000	4.37936449	3.00000000	13.76000000	1.8048224	29.10000000	19.1700111	11.71
PL503	4	0.10000000	1.63678947	0.01000000	0.30000000	0.41839273	24.00000000	2.67077497	11.71
PL504	4	0.23750000	5.55272330	0.01000000	14.40000000	2.77863690	24.95000000	30.8833162	11.71
PL50120	4	9.92500000	1.34584496	4.70000000	7.76000000	0.67292273	21.70000000	1.81100000	11.71
PL50130	4	0.40750000	5.00023000	0.00000000	14.00000000	2.50011934	23.60000000	27.00000000	11.71

AMINO-PEPTIDYLAMINE DOSE-34

PL500	10	6.32000000	1.10114034	4.01000000	0.10000000	0.37414430	63.20000000	1.10000000	11.71
PL501	7	0.70000000	2.70626343	0.30000000	12.30000000	1.21020674	40.50000000	7.12000000	11.71
PL502	7	0.12400000	0.36370017	0.01000000	13.00000000	1.30527023	45.00000000	11.10000000	11.71
PL503	7	0.70200000	0.75360467	0.01000000	0.40000000	0.33022271	43.10000000	0.30000000	11.71
PL5010	7	7.66000000	1.40011041	0.17000000	0.00000000	0.67042524	30.10000000	2.24750000	11.71
PL50120	7	7.30000000	1.19149006	0.10000000	0.70000000	0.53205490	36.00000000	1.41000000	11.71
PL50130	7	0.97400000	1.05270003	0.00000000	0.05000000	0.02053630	34.07000000	3.43200000	11.71

AMINO-PEPTIDYLAMINE DOSE-50

PL500	6	5.07166667	0.53026004	4.77000000	0.10000000	0.21047012	34.03000000	0.20117067	11.71
PL501	3	11.42666667	3.10232700	0.00000000	14.12000000	1.70112930	34.20000000	0.60441111	11.71
PL502	3	10.50666667	0.74661430	10.00000000	11.40000000	0.43105013	31.70000000	0.17741111	11.71
PL503	3	11.01666667	4.44025047	0.00000000	16.70000000	2.90302022	34.05000000	19.7514111	11.71
PL5010	3	0.40666667	0.21540395	0.20000000	0.65000000	0.32440072	24.27000000	0.04641111	11.71
PL50120	3	0.92333333	2.34031760	0.40000000	11.40000000	1.35649046	29.77000000	5.70271111	11.71
PL50130	3	0.50000000	1.33630000	7.00000000	0.50000000	0.77151366	21.00000000	1.70520000	11.71

AMINO-PEPTIDYLAMINE DOSE-100

PL500	0	4.02000000	0.02100122	3.00000000	6.40000000	0.20047000	30.50000000	0.47302097	17.00
PL501	4	10.40300000	0.43104001	0.12000000	20.12000000	4.21502040	73.90000000	71.00250000	47.01
PL502	4	21.42500000	0.50710003	14.20000000	30.04000000	3.20359032	73.70000000	43.10000000	30.74
PL503	4	16.72500000	3.07016305	12.01000000	21.52000000	1.03500102	64.90000000	14.97016667	23.03
PL5010	4	15.11750000	7.23900250	0.00000000	25.23000000	3.61070120	60.47000000	52.40130033	47.00
PL50120	4	0.40750000	3.42006137	4.00000000	13.11000000	1.71443070	37.01000000	11.70701667	30.17
PL50130	4	0.92500000	4.46274570	7.00000000	10.55000000	2.23137200	39.70000000	19.01000000	44.00

AMINO-PROLINE DOSE-34

PL500	10	15.93000000	6.00070000	0.12000000	27.02000000	2.20403170	150.50000000	40.97250000	41.00
PL501	7	10.07000000	4.42941044	11.47000000	20.03000000	1.00000523	80.30000000	10.01000000	27.73
PL502	7	15.00000000	10.24507330	0.20000000	30.50000000	4.50213050	75.00000000	104.00000000	44.20
PL503	7	14.20200000	2.04171724	0.00000000	10.75000000	1.10141017	71.41000000	6.70000000	10.40
PL5010	7	12.11000000	5.01216035	0.20000000	19.00000000	2.01676327	60.55000000	34.23320000	44.30
PL50120	7	13.41200000	4.10062500	0.00000000	17.07000000	1.00222720	67.00000000	12.00200000	30.70
PL50130	7	11.47200000	6.14575210	0.37000000	21.00000000	2.74000303	57.30000000	37.77020000	41.77

PLASMA AMINO ACIDS
AMINOACID IN mg-%

11145 MONDAY, 11 FEB 66

ANALYT	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE
AMINO-PROLINE NO. 0100							
P1500	15.75333333	5.9162764	8.4600000	21.0500000	2.3481008	94.7200000	38.7670000
P1501	14.3066667	3.7466667	12.6300000	20.1200000	2.16325620	48.9200000	14.8700000
P1502	12.7066667	1.1707070	11.0700000	13.2000000	0.63141724	38.9200000	1.2700000
P1503	16.1933333	2.7210027	14.4500000	19.3900000	1.3052422	48.5800000	7.8000000
P1504	13.1133333	0.99140240	12.4300000	13.5000000	0.44263305	32.3200000	0.3522333
P150120	13.1266667	5.4100470	8.2600000	19.1000000	3.1201000	39.3800000	20.3522333
P150130	13.3066667	2.1372173	13.3100000	12.2300000	1.24364375	46.0800000	4.6340000
AMINO-PROLINE NO. 0100							
P1500	13.4700000	5.17411540	7.1300000	23.7700000	1.83001310	118.9400000	26.7021745
P1501	14.0700000	4.97026534	9.0000000	21.6100000	2.41461317	50.2000000	24.2026667
P1502	10.0420000	3.07110603	5.0000000	15.2000000	1.04570441	40.1700000	19.1229000
P1503	13.0720000	3.03209359	10.2000000	18.7400000	1.9204479	32.2000000	14.9066667
P1504	9.9100000	4.90476644	4.0000000	15.6200000	2.25210022	39.8000000	20.3200000
P150120	12.2100000	4.0010047	8.4100000	18.6000000	2.24303224	48.8000000	20.1313333
P150130	9.7200000	4.00739104	4.2000000	13.3000000	2.44369997	38.0000000	21.0066667
AMINO-GLUTINE NO. 0104							
P1500	36.7130000	12.70991006	15.2100000	70.0000000	5.30910201	307.1500000	313.4093144
P1501	32.4700000	22.0000000	16.7000000	72.2700000	10.13122020	162.3000000	79.2371000
P1502	25.2700000	18.4100000	12.0000000	41.3400000	4.63904424	126.2000000	100.3133333
P1503	23.9040000	8.90910232	17.0000000	39.1000000	3.00333504	110.0200000	73.9100000
P1504	22.2700000	7.4760000	14.0000000	30.2600000	3.10349044	111.3500000	53.8100000
P150120	17.0540000	1.4100000	15.9000000	19.4500000	0.43040637	88.2700000	2.0073000
P150130	26.0700000	11.56301510	13.7700000	40.1000000	5.12113759	130.3000000	133.7033333
AMINO-GLUTINE NO. 0100							
P1500	26.4033333	6.0760000	16.9500000	34.1000000	2.00715475	150.4200000	47.2000000
P1501	24.0333333	2.30029534	21.3400000	29.2000000	1.30731200	72.1000000	9.0000000
P1502	29.3166667	14.3240000	10.4000000	45.4000000	0.27049014	82.9000000	40.0000000
P1503	22.2733333	2.0700000	10.9100000	23.0200000	1.20031015	66.4200000	20.2000000
P1504	22.7300000	7.17525600	15.7200000	29.0700000	4.14201004	80.1000000	31.4000000
P150120	18.3366667	2.03020050	15.2300000	21.3900000	1.03400700	53.0100000	0.0100000
P150130	22.7333333	6.19047025	15.0000000	27.0700000	3.57407400	60.2000000	38.3220000
AMINO-GLUTINE NO. 0100							
P1500	10.7070000	4.00630700	13.0300000	25.0100000	1.60931473	150.3000000	23.1000000
P1501	19.0300000	4.72007010	12.0500000	23.0300000	2.30043090	79.3400000	22.2000000
P1502	16.4000000	6.74239110	9.2100000	29.0500000	3.30117535	65.9200000	41.0000000
P1503	15.0400000	1.00143071	13.0500000	17.3300000	0.40201035	62.7000000	3.5300000
P1504	13.1400000	7.46500055	6.0700000	23.2000000	3.23290470	32.3000000	53.7400000
P150120	14.0700000	1.37429002	12.0000000	15.0200000	0.60714901	56.1000000	1.0000000
P150130	14.3000000	0.00140037	7.5000000	26.9200000	4.00073400	37.2000000	0.0000000

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[illegible]

ANTHONY T. ALLEN, JR. 2051-038

PI 500	6.9766667	1.50356667	5.5400000	9.7260000	0.4302770	41.0000000	2.2000000	21.71
PI 510	5.9011111	0.6150240	5.2800000	6.0000000	0.4716442	17.0000000	0.617111	17.51
PI 520	4.2066667	1.1061617	5.3400000	7.0000000	0.0059072	10.0000000	1.411711	10.17
PI 530	7.0011111	2.3156406	6.1000000	10.0000000	1.3367409	23.0000000	3.302111	20.17
PI 540	7.0011111	4.0302026	6.1000000	15.0000000	2.7033003	20.0000000	23.4000000	40.11
PI 550	7.0011111	1.6210246	6.4500000	0.3500000	0.0500123	27.0000000	2.627111	21.60
PI 560	6.0033333	2.3350155	4.5000000	0.1700000	1.30050162	20.0000000	5.4500000	14.00

AMINO-TALININ 0791-100

4	6.80075000	2.18709404	3.25000000	0.75000000	0.74332097	40.70000000	4.42250000	74.40
4	6.81770000	-21916463	3.26000000	0.76000000	1.18987232	24.80000000	4.92460000	76.40
4	6.81770000	5.41770000	2.21050372	2.30000000	1.10024106	22.60000000	4.92720000	40.70
4	5.74230000	2.16383577	2.40000000	2.40000000	1.00101700	22.10000000	4.60230000	30.00
4	5.74230000	1.89080330	3.60000000	6.70000000	0.54031776	20.20000000	1.20270000	21.70
4	5.45000000	2.66473131	1.80000000	7.70000000	1.23213773	21.00000000	6.87500000	49.20
4	4.10750000	1.90790033	3.21000000	6.50000000	0.70070466	16.40000000	2.53270000	30.00

ANYONE THERE ON THE POST-034

10	12.7470000	3.27417102	0.1200000	10.0300000	1.0393000	127.4700000	10.2292011	23.6
11	12.7520000	3.56129471	0.1300000	17.0000000	1.4026900	20.7000000	12.6020000	26.9
12	0.0000000	2.51001003	0.6000000	13.2000000	0.1220000	40.0000000	6.0047000	27.0
13	0.0000000	1.00054000	0.4100000	11.0000000	0.4593000	47.2000000	10.74	10.74
14	0.0300000	1.41033009	0.7000000	10.0000000	0.6134100	43.5000000	2.0000000	10.41
15	0.0000000	0.42363000	7.2000000	0.2000000	0.1004712	30.1000000	0.1200000	9.41
16	0.0000000	2.15011000	3.0000000	11.0000000	1.0300200	40.3000000	5.7000000	20.70

AMINO-TIME ONLINE INST-50

P100	8	12.69813333	1.84888817	18.68888888	15.32888888	8.75926824	79.58888888	3.45888888	15.37
P1030	3	18.91333333	1.66521278	9.84888888	12.32888888	8.96141188	31.58888888	2.72888888	17.87
P1045	3	11.98888888	1.57933333	18.32888888	13.48888888	8.91125888	34.78888888	2.49888888	17.87
P1070	3	9.98888888	8.99684602	8.83888888	18.74888888	8.3751874	28.88888888	8.98888888	17.90
P1070	7	18.28888888	1.31727911	8.75888888	11.18888888	8.7695388	38.88888888	1.78888888	17.90
P1070	7	9.88133333	2.88884661	7.38888888	11.38888888	1.15885343	27.28888888	4.82888888	22.88
P1070	1	8.71666667	2.28219923	7.68888888	12.16888888	1.31762824	28.18888888	5.28888888	21.88

PLASMA AMINO ACIDS
AMINO-TRYPTOPHAN DISEASE

1144 MONDAY, OCTOBER 3, 1971

VARIANT	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	...
PL 5000	4	10.00750000	2.70301648	6.05000000	14.16000000	0.00740045	60.00000000	7.00000000	27.70
PL 5001	4	10.31500000	2.01000000	7.00000000	13.51000000	1.45000000	41.20000000	0.30000000	20.00
PL 5002	4	7.77500000	3.01000000	4.50000000	11.60000000	1.51000000	30.20000000	0.30000000	20.00
PL 5003	4	0.77500000	1.00000000	0.00000000	9.00000000	0.50000000	35.10000000	1.00000000	11.00
PL 5004	4	0.77500000	2.72172230	3.00000000	9.70000000	1.30000000	25.00000000	7.00000000	41.00
PL 5005	4	2.00000000	1.40000000	1.00000000	6.00000000	0.70000000	20.00000000	1.00000000	19.00
PL 5006	4	6.00000000	3.50000000	3.00000000	11.00000000	1.70000000	25.00000000	12.00000000	15.00

PL 5007	4	7.41700000	1.61000000	2.00000000	7.40000000	0.51275439	54.17000000	2.62000000	20.00
PL 5008	4	7.00000000	0.00000000	0.00000000	0.00000000	0.00000000	20.00000000	0.00000000	14.00
PL 5009	4	4.00000000	1.40000000	2.00000000	6.00000000	0.50000000	24.00000000	2.00000000	20.00
PL 5010	4	4.00000000	1.60000000	3.00000000	6.20000000	0.52000000	24.00000000	1.00000000	20.00
PL 5011	4	5.74000000	0.00000000	4.70000000	6.70000000	0.50000000	20.00000000	0.00000000	11.00
PL 5012	4	7.17400000	1.20000000	3.70000000	6.70000000	0.50000000	25.00000000	1.00000000	21.00
PL 5013	4	4.24750000	1.20000000	2.00000000	5.50000000	0.50000000	16.00000000	1.00000000	20.00

PL 5000	4	7.20000000	1.00000000	0.00000000	0.00000000	0.00000000	43.70000000	1.00000000	11.00
PL 5001	4	5.57000000	1.20000000	4.41000000	6.00000000	0.70000000	10.70000000	1.00000000	22.00
PL 5002	4	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	20.00000000	0.00000000	12.00
PL 5003	4	0.00000000	1.70000000	0.00000000	2.70000000	1.00000000	10.00000000	0.00000000	20.00
PL 5004	4	7.00000000	1.30000000	6.00000000	9.00000000	0.70000000	23.00000000	1.00000000	17.00
PL 5005	4	5.00000000	0.61000000	5.00000000	7.10000000	0.71234313	17.40000000	1.00000000	21.00

PL 5000	4	4.05000000	1.41000000	2.00000000	6.00000000	0.50000000	33.00000000	1.00000000	20.00
PL 5001	4	4.50000000	1.00000000	3.00000000	5.00000000	0.50000000	10.00000000	0.00000000	22.00
PL 5002	4	4.50000000	0.00000000	0.00000000	0.00000000	0.00000000	10.00000000	0.00000000	20.00
PL 5003	4	4.50000000	1.00000000	0.00000000	5.00000000	0.50000000	13.00000000	1.00000000	20.00
PL 5004	4	4.50000000	0.00000000	0.00000000	0.00000000	0.00000000	12.00000000	0.00000000	20.00
PL 5005	4	4.50000000	1.00000000	0.00000000	5.00000000	0.50000000	12.00000000	1.00000000	20.00

PL 5000	4	7.00000000	2.40000000	4.00000000	12.00000000	0.75000000	70.00000000	5.00000000	10.00
PL 5001	4	0.00000000	1.00000000	0.00000000	0.00000000	0.00000000	43.00000000	1.00000000	12.00
PL 5002	4	0.00000000	2.00000000	0.00000000	13.00000000	1.30000000	40.00000000	0.00000000	20.00
PL 5003	4	0.00000000	1.50000000	0.00000000	10.00000000	0.50000000	35.00000000	1.00000000	10.00
PL 5004	4	7.00000000	1.50000000	0.00000000	9.00000000	0.50000000	37.00000000	1.00000000	10.00
PL 5005	4	6.77200000	1.00000000	5.00000000	9.00000000	0.72455700	33.00000000	2.00000000	21.00

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	...
PL 5010	10	0.05000000	1.67129336	4.11000000	0.21000000	0.52047640	00.50000000	2.70300000	27.500
PL 5011	9	0.15000000	1.40010054	4.00000000	7.65000000	0.62000000	30.70000000	1.02410000	27.000
PL 5012	9	0.41000000	1.43000000	4.00000000	7.60000000	0.64000000	32.00000000	2.00000000	27.000
PL 5013	9	0.20400000	1.05260013	4.00000000	0.00000000	0.00000000	31.40000000	0.00000000	27.000
PL 5014	9	0.04200000	1.30523203	5.00000000	0.00000000	0.61000000	37.20000000	1.00000000	27.000
PL 5015	9	0.06200000	1.07070000	3.00000000	7.00000000	0.70000000	29.00000000	2.00000000	27.000
PL 5016	9	0.24000000	1.40000000	3.00000000	0.40000000	0.60000000	30.00000000	2.00000000	27.000
----- ANHINO-1/20CYSTINE P03E-30 -----									
PL 5017	6	0.62000000	2.37352001	2.70000000	0.00000000	0.00000000	39.70000000	0.00000000	39.000
PL 5018	6	0.71000000	0.37000000	0.00000000	0.00000000	0.00000000	26.10000000	0.00000000	26.000
PL 5019	6	0.72000000	1.74400000	0.00000000	0.00000000	0.00000000	20.10000000	0.00000000	20.000
PL 5020	6	0.37000000	0.00000000	0.00000000	0.00000000	0.00000000	22.10000000	0.00000000	22.000
PL 5021	6	0.36000000	1.17000000	0.00000000	0.00000000	0.00000000	16.00000000	0.00000000	16.000
PL 5022	6	0.21000000	0.00000000	0.00000000	0.00000000	0.00000000	21.00000000	0.00000000	21.000
PL 5023	6	0.32000000	2.67200000	0.00000000	0.00000000	0.00000000	19.00000000	0.00000000	19.000
----- ANHINO-1/20CYSTINE P03E-100 -----									
PL 5024	4	0.10000000	1.51770000	0.00000000	0.00000000	0.00000000	57.00000000	2.00000000	21.000
PL 5025	4	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	31.00000000	0.00000000	31.000
PL 5026	4	0.00000000	1.73110000	0.00000000	0.00000000	0.00000000	25.00000000	0.00000000	25.000
PL 5027	4	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	32.00000000	0.00000000	32.000
PL 5028	4	0.00000000	1.00000000	0.00000000	0.00000000	0.00000000	26.00000000	0.00000000	26.000
PL 5029	4	0.00000000	1.00000000	0.00000000	0.00000000	0.00000000	26.00000000	0.00000000	26.000
PL 5030	4	0.00000000	1.00000000	0.00000000	0.00000000	0.00000000	26.00000000	0.00000000	26.000
PL 5031	4	0.00000000	1.00000000	0.00000000	0.00000000	0.00000000	26.00000000	0.00000000	26.000
PL 5032	4	0.00000000	1.00000000	0.00000000	0.00000000	0.00000000	26.00000000	0.00000000	26.000
PL 5033	4	0.00000000	1.00000000	0.00000000	0.00000000	0.00000000	26.00000000	0.00000000	26.000

CRYTHROCYTIC FREE AMINO ACIDS
AMINOACAMINOBUTYRATE 009E034

MONDAY, OCTOBER 1, 1977

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD. ERROR OF MEAN	SUM	VARIANCE	F.V.
ANCOV	16	0.9010000	1.14082017	0	2.8400000	0.36320004	9.6100000	1.31970774	117.744
ANCOV3	3	0.4240000	0.78000017	0	1.0100000	0.335000242	4.1200000	0.02261000	117.744
ANCOV4	3	0.5440000	0.87931000	0	1.9100000	0.37473497	2.7200000	0.70213000	73.761
ANCOV5	3	0.7620000	0.78933704	0	1.0000000	0.333000200	3.0100000	0.42333000	136.144
ANCOV6	3	0.6640000	0.91311202	0	1.0300000	0.40279033	3.3200000	0.81743000	103.144
ANCOV7	3	0.9100000	0.08700334	0	2.0000000	0.40639006	4.3200000	0.07200000	137.016
ANCOV130	3	0.6000000	0.04037710	0	1.7200000	0.37591734	3.0400000	0.70630000	97.432
----- ANIMO-ALANINE INDUCTIONAL POST-OP -----									
ANCOV	4	0.0010007	1.0010200	0.0000000	2.0000000	0.41564742	5.3200000	1.03070007	114.107
ANCOV3	3	0.3033333	0.64663300	0.0100000	1.1300000	0.37333333	1.1500000	0.4103333	104.007
ANCOV4	3	1.0100007	1.05260912	0.0100000	2.1100000	0.60770437	3.0500000	1.1003333	101.542
ANCOV5	3	0.4700007	0.04293139	0.0100000	1.4200000	0.40060067	1.4000000	1.1003333	107.710
ANCOV6	3	1.1033333	1.33121400	0.0100000	2.6300000	0.70037733	3.3200000	1.7203333	112.107
ANCOV120	3	0.1200000	0.1100000	0.0100000	0.4000000	0.10000000	0.3100000	0.06000000	103.017
ANCOV130	3	0.9700000	1.0100000	0.0100000	2.0400000	0.30030300	2.9100000	1.03030000	103.017
----- ANIMO-ALANINE INDUCTIONAL POST-OP -----									
ANCOV	9	0.4000000	0.30001470	0	1.1000000	0.16003026	3.6000000	0.2500111	124.103
ANCOV3	3	0.1020000	0.41017400	0	0.7400000	0.10701337	0.0000000	0.17007000	217.790
ANCOV4	4	0.0120000	1.33002902	0	2.0200000	0.60000401	3.4300000	1.00079033	191.747
ANCOV5	3	0.1000000	0.21200020	0	0.4000000	0.07302031	0.3000000	0.04330000	212.403
ANCOV6	4	0.4750000	0.07607053	0	1.0000000	0.46030020	1.0000000	0.07730007	107.109
ANCOV120	4	0.1020000	0.30501501	0	0.0000000	0.17201412	0.0000000	0.15007000	217.403
ANCOV130	4	0.3250000	0.630000412	0	1.2000000	0.31034700	1.3000000	0.40330007	103.003
----- ANIMO-ALANINE POST-OP -----									
ANCOV	10	20.0000000	6.00503121	17.0000000	41.0000000	2.16477009	200.4000000	40.00200007	79.007
ANCOV3	3	20.0000000	0.03040310	17.0000000	39.1000000	3.39535012	133.3000000	04.0000000	30.100
ANCOV4	3	21.5200000	2.27310301	10.5000000	24.0000000	1.01650000	107.6000000	5.10700000	10.003
ANCOV5	3	24.0000000	2.00201353	14.0000000	37.5000000	3.50310204	124.7000000	03.3000000	31.003
ANCOV6	3	21.7000000	2.00270303	19.4000000	26.1000000	1.33394153	100.0000000	0.00700000	31.003
ANCOV120	3	23.1000000	0.33273573	19.0000000	33.5000000	3.01007001	113.5000000	43.3000000	20.100
ANCOV130	3	20.0000000	2.305354000	10.1000000	24.1000000	1.147334070	102.4000000	0.00200000	12.327
----- ANIMO-ALANINE POST-OP -----									
ANCOV	0	23.7500000	4.03420703	17.1000000	20.0000000	2.01400049	142.5000000	24.34700000	20.770
ANCOV3	3	21.0000000	5.542000320	17.0000000	20.7000000	3.20017301	63.0000000	30.7233333	23.100
ANCOV4	3	21.0000000	2.70240001	10.0000000	23.1000000	1.30007003	03.2000000	7.3033333	12.000
ANCOV5	3	27.2333333	6.67230071	20.0000000	34.2000000	3.05241027	01.7000000	44.5233333	24.507
ANCOV6	3	21.1666667	3.09914521	10.0000000	24.3000000	2.23117253	03.3000000	13.2033333	10.411
ANCOV120	3	22.0333333	3.95316340	17.0000000	25.2000000	2.20331501	06.1000000	13.0000000	10.411
ANCOV130	3	20.0000000	0.70102407	10.5000000	20.0000000	0.45002400	00.0000000	0.01000000	3.004

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FRYINGCYTE FREE AMINO ACIDS
AMINO-ALANINE DOSE-100

11143 MONDAY, OCTOBER 3, 1977

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE
PRC01	9	27.94444444	5.9396321	17.5000000	34.7000000	1.94502107	247.0000000	35.40277778
PRC02	9	24.0000000	3.30650073	21.4000000	32.0000000	1.47011906	144.0000000	10.0000000
PRC03	9	26.4200000	9.25640471	14.0000000	36.0000000	4.62024211	103.7000000	85.0000000
PRC04	9	25.0000000	5.20145373	21.0000000	33.2000000	2.36211766	134.7000000	19.0000000
PRC05	9	23.7000000	10.46700740	14.7000000	35.0000000	5.23794170	103.0000000	109.7000000
PRC06	9	24.4000000	4.34021003	21.1000000	32.7000000	1.94470077	132.4000000	10.0000000
PRC07	9	21.0000000	0.0000000	14.6000000	32.7000000	4.43201000	87.2000000	77.0000000

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE
PRC08	9	2.0140000	0.0000000	0.0000000	3.4500000	0.20716314	20.1400000	0.0000000
PRC09	9	1.0100000	0.0000000	0.0000000	2.7000000	0.40417696	0.0000000	0.0000000
PRC10	9	1.0000000	0.0000000	0.0000000	2.0000000	0.23400345	0.0000000	0.0000000
PRC11	9	1.0000000	0.0000000	0.0000000	2.0000000	0.30641176	0.0000000	0.0000000
PRC12	9	1.0000000	0.0000000	0.0000000	2.0000000	0.42420607	0.0000000	0.0000000
PRC13	9	1.0000000	0.0000000	0.0000000	2.0000000	0.40000000	0.0000000	0.0000000
PRC14	9	1.0000000	0.0000000	0.0000000	2.0000000	0.33011032	0.0000000	0.0000000

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE
PRC15	9	3.29111111	0.0000000	1.7000000	4.1000000	0.30667315	19.0000000	0.0000000
PRC16	9	2.4000000	0.21071300	2.2000000	2.5000000	0.12161323	7.2000000	0.04444444
PRC17	9	1.7000000	0.0000000	0.0000000	2.0000000	0.43191010	0.0000000	0.0000000
PRC18	9	2.0000000	0.73079727	2.2000000	3.6700000	0.42712715	8.0000000	0.4000000
PRC19	9	1.6000000	0.51204072	1.0000000	2.2000000	0.20507207	3.0000000	0.0000000
PRC20	9	2.2000000	0.46337300	1.0000000	3.0000000	0.24764404	6.0000000	0.0000000
PRC21	9	2.0700000	0.07103026	1.0000000	2.0000000	0.30330644	6.2000000	0.70111111

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE
PRC22	9	2.0000000	0.01214034	1.0000000	4.0000000	0.30404670	24.0000000	0.0000000
PRC23	9	2.0000000	0.56006140	2.0000000	3.0000000	0.25002663	14.0000000	0.0000000
PRC24	9	2.3475000	0.53229060	1.0000000	3.0000000	0.27614534	9.0000000	0.0000000
PRC25	9	2.3340000	0.00279669	1.0000000	3.0000000	0.30470000	11.0000000	0.0000000
PRC26	9	2.0000000	1.32325357	1.0000000	4.0000000	0.00162070	9.0000000	0.0000000
PRC27	9	2.1940000	0.56006140	1.0000000	3.0000000	0.25404670	10.0000000	0.0000000
PRC28	9	2.4075000	1.03010792	1.0000000	4.0000000	0.72000000	9.0000000	0.0000000

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE
PRC29	9	6.5000000	2.54130057	2.7000000	11.0000000	0.80300079	53.0000000	0.4000000
PRC30	9	0.0000000	2.10707309	0.0000000	11.0000000	0.00250004	40.0000000	0.0000000
PRC31	9	6.2000000	1.70130790	3.0000000	8.0000000	0.70710442	31.0000000	0.0000000
PRC32	9	5.0000000	1.00122145	3.0000000	7.0000000	0.75631723	20.0000000	0.0000000
PRC33	9	5.0000000	3.41500591	0.0000000	10.0000000	1.52750000	27.0000000	0.0000000
PRC34	9	5.0000000	3.0000000	0.0000000	10.0000000	0.0000000	20.0000000	0.0000000
PRC35	9	4.3300000	1.00120174	1.0000000	6.0000000	0.04120000	22.7000000	0.0000000

FRUITROCKITE PREP AMINO ACIDS
AMINO-ASPARAGINE NO. 50

11147 MONDAY, 10-10-54

Variable	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD. DEVIATION OF MEAN	SUM	VARIANCE
PRC001	4	2.0000000	2.2064900	4.3000000	10.1100000	0.0373044	39.4300000	2.2239000
PRC010	3	2.9166667	1.5866421	1.2000000	4.4000000	0.9166667	8.7500000	2.0122222
PRC020	3	4.4166667	1.1031784	3.2100000	7.6000000	0.6083221	19.2900000	1.4504444
PRC030	3	4.0233333	0.8485537	4.9300000	4.9300000	0.4032707	12.0700000	0.5626667
PRC040	3	7.0366667	1.0014810	6.3100000	10.1000000	1.0070210	23.4100000	3.6361111
PRC050	3	9.4933333	0.3350770	4.0000000	6.0300000	0.3088889	16.4000000	0.2962222
PRC060	3	7.2466667	1.3071472	6.4100000	9.2400000	0.7346816	23.2400000	1.7066667

AMINO-ASPARAGINE NO. 50								
PRC000	9	7.1944444	3.3007234	1.4000000	10.7000000	1.1001040	64.7500000	10.0117777
PRC010	9	8.1620000	1.0249713	5.4200000	10.5000000	0.4161149	40.8100000	3.7305556
PRC020	4	8.2170000	2.0421914	3.4000000	0.7000000	1.4710002	24.0700000	4.4642167
PRC030	9	8.0100000	3.0621074	3.5000000	11.4000000	1.3716720	40.0500000	9.4414000
PRC040	4	5.0220000	1.7673291	3.7000000	7.6000000	0.8816792	23.5100000	3.1239444
PRC050	9	8.3000000	2.5450730	5.5000000	12.1000000	1.1019133	41.0500000	6.4224000
PRC060	4	5.7000000	2.0070510	3.2000000	9.6000000	1.4430200	22.2000000	8.1066667

AMINO-ASPARAGINE NO. 50								
PRC000	10	17.3000000	0.9776493	0.4200000	34.0000000	2.0231700	177.7000000	70.7055556
PRC010	3	16.3000000	11.4132473	7.0100000	37.1000000	5.1441340	81.4000000	130.7622222
PRC020	9	16.0300000	0.0204234	6.5000000	30.0000000	4.0340645	80.1700000	41.3000000
PRC030	9	17.4000000	11.0000140	6.6200000	33.1000000	4.9616320	77.2000000	123.1000000
PRC040	9	17.3000000	0.7130023	5.6300000	31.0000000	4.3404154	86.7000000	94.1000000
PRC050	9	17.0000000	7.0175646	7.1200000	25.0000000	3.5400256	80.0700000	92.0000000
PRC060	9	15.1000000	0.1232071	5.0000000	30.0000000	4.1023020	75.5000000	84.1477778

AMINO-ASPARAGINE NO. 50								
PRC000	4	15.0010000	0.0105016	0.0200000	24.4000000	2.7090015	94.0000000	40.0747778
PRC010	3	14.5000000	10.7420444	5.1000000	26.3000000	6.2053342	43.7000000	117.5955556
PRC020	3	15.4333333	0.2973510	0.3100000	20.2600000	3.6377747	40.3000000	39.0361111
PRC030	3	17.0566667	11.0001066	0.0000000	30.5000000	0.0731033	33.3000000	141.0000000
PRC040	3	16.0333333	6.5901103	0.6000000	21.3100000	3.0400344	40.1000000	43.0261111
PRC050	3	16.3466667	4.0203203	13.1000000	20.0000000	2.3217320	40.0000000	16.1461111
PRC060	3	14.7000000	13.2250745	6.1000000	30.0000000	7.6330200	44.3000000	174.0022222

AMINO-ASPARAGINE NO. 50								
PRC000	9	10.0077778	7.2700025	11.5000000	30.0000000	2.4262475	170.2700000	52.0000000
PRC010	9	23.0200000	4.6645021	16.1500000	20.0000000	2.0640472	110.0700000	21.7000000
PRC020	4	15.0000000	3.7039730	10.5300000	19.4000000	1.0010027	60.0200000	14.1000000
PRC030	9	22.7000000	4.0046070	15.0000000	20.0000000	2.1034220	113.0000000	24.0000000
PRC040	4	13.4620000	4.4011152	9.1200000	10.7000000	2.2200370	44.2500000	19.0000000
PRC050	9	23.1200000	4.6600170	15.2000000	22.4000000	2.1773931	116.0000000	23.7000000
PRC060	4	13.1020000	3.0553360	0.0000000	16.1000000	1.5277470	53.2100000	9.3362000

CAUTION: DO NOT REMOVE
AMINO-CITRAULLINE 003C034

11144 MONDAY, OCTOBER 1, 1966

Variable	n	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C...
amc001	6	...	...	...	...	...	...	...	...
amc002	6	...	...	...	...	...	...	...	...
amc003	6	...	...	...	...	...	...	...	...
amc004	6	...	...	...	...	...	...	...	...
amc005	6	...	...	...	...	...	...	...	...
amc006	6	...	...	...	...	...	...	...	...
amc007	6	...	...	...	...	...	...	...	...
amc008	6	...	...	...	...	...	...	...	...
amc009	6	...	...	...	...	...	...	...	...
amc010	6	...	...	...	...	...	...	...	...

AMINO-CITRAULLINE 003C030									
amc001	6	...	...	...	...	...	...	...	...
amc002	6	...	...	...	...	...	...	...	...
amc003	6	...	...	...	...	...	...	...	...
amc004	6	...	...	...	...	...	...	...	...
amc005	6	...	...	...	...	...	...	...	...
amc006	6	...	...	...	...	...	...	...	...
amc007	6	...	...	...	...	...	...	...	...
amc008	6	...	...	...	...	...	...	...	...
amc009	6	...	...	...	...	...	...	...	...
amc010	6	...	...	...	...	...	...	...	...

AMINO-CITRAULLINE 003C030									
amc001	6	...	...	...	...	...	...	...	...
amc002	6	...	...	...	...	...	...	...	...
amc003	6	...	...	...	...	...	...	...	...
amc004	6	...	...	...	...	...	...	...	...
amc005	6	...	...	...	...	...	...	...	...
amc006	6	...	...	...	...	...	...	...	...
amc007	6	...	...	...	...	...	...	...	...
amc008	6	...	...	...	...	...	...	...	...
amc009	6	...	...	...	...	...	...	...	...
amc010	6	...	...	...	...	...	...	...	...

AMINO-CITRAULLINE 003C034									
amc001	6	...	...	...	...	...	...	...	...
amc002	6	...	...	...	...	...	...	...	...
amc003	6	...	...	...	...	...	...	...	...
amc004	6	...	...	...	...	...	...	...	...
amc005	6	...	...	...	...	...	...	...	...
amc006	6	...	...	...	...	...	...	...	...
amc007	6	...	...	...	...	...	...	...	...
amc008	6	...	...	...	...	...	...	...	...
amc009	6	...	...	...	...	...	...	...	...
amc010	6	...	...	...	...	...	...	...	...

AMINO-CITRAULLINE 003C030									
amc001	6	...	...	...	...	...	...	...	...
amc002	6	...	...	...	...	...	...	...	...
amc003	6	...	...	...	...	...	...	...	...
amc004	6	...	...	...	...	...	...	...	...
amc005	6	...	...	...	...	...	...	...	...
amc006	6	...	...	...	...	...	...	...	...
amc007	6	...	...	...	...	...	...	...	...
amc008	6	...	...	...	...	...	...	...	...
amc009	6	...	...	...	...	...	...	...	...
amc010	6	...	...	...	...	...	...	...	...

FRUITROSCYTE RUCF AMINO ACIDS
AMINO-GLUTAMATE POSITIVE

11143 MURRAY, OF TULLIN

VARIANT	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
AMC 11	2	24.78888889	0.32221878	14.22888889	38.54888889	2.77777778	222.38888889	0.94444444	3.81
AMC 12	4	21.35388889	0.62221878	17.68888889	38.88888889	3.71111111	111.38888889	0.88888889	4.17
AMC 13	4	22.22888889	5.42221878	11.14888889	38.72888889	4.01147941	86.72888889	0.62221878	44.14
AMC 14	4	29.45228889	6.38221878	16.38888889	38.31888889	2.42424242	111.11888889	0.11888889	21.7
AMC 15	4	24.68888889	8.12221878	13.78888889	38.41888889	3.13221878	81.62888889	0.12221878	11.4
AMC 16	4	18.31888889	4.43125661	12.84888889	38.32888889	3.24221878	123.42888889	0.08888889	11.04

AMINO-GLUTAMINE POSITIVE

AMC 17	10	27.27888889	6.72221878	16.58888889	37.88888889	2.12221878	278.78888889	4.72221878	24.06
AMC 18	4	27.12888889	9.42221878	12.28888889	36.72888889	4.21622187	127.02888889	0.82221878	17.30
AMC 19	4	23.22888889	3.62221878	21.82888889	29.18888889	1.64221878	126.78888889	13.48888889	11.46
AMC 20	4	23.91888889	0.38125661	11.68888889	33.18888889	3.74824198	119.52888889	20.72221878	11.17
AMC 21	4	23.42888889	4.36125661	12.24888889	38.88888889	2.84821878	120.12888889	20.82221878	17.77
AMC 22	4	21.83888889	12.31821878	9.32888889	43.52888889	3.59421878	119.27888889	186.31221878	12.147
AMC 23	4	21.83888889	4.04125661	17.18888889	27.13888889	2.07221878	109.18888889	21.32888889	21.271

AMINO-GLUTAMINE POSITIVE

AMC 24	4	26.24888889	0.38125661	15.41888889	32.81888889	2.68821878	137.48888889	48.81221878	24.16
AMC 25	4	26.58888889	5.15146941	25.18888889	34.38888889	2.97422187	85.72888889	20.52221878	19.02
AMC 26	4	27.52221878	3.71821878	26.88888889	31.92888889	3.38125661	76.72888889	32.72221878	22.161
AMC 27	4	27.52221878	4.88221878	26.62888889	35.32888889	2.8461222	79.26888889	21.92221878	16.17
AMC 28	4	27.82221878	5.12221878	26.78888889	38.82888889	3.87821878	71.62888889	20.42221878	22.17
AMC 29	4	27.42888889	7.90221878	22.81888889	37.12888889	1.71125661	76.41888889	8.92221878	11.76
AMC 30	4	27.15688889	7.33125661	19.38888889	38.42888889	4.23221878	86.42888889	53.75221878	31.11

AMINO-GLUTAMINE POSITIVE

AMC 31	4	26.80221878	10.83125661	15.52888889	41.68888889	3.34221878	268.88888889	188.62888889	14.71
AMC 32	4	31.68888889	0.22821878	22.72888889	41.68888889	3.67821878	158.12888889	0.76888889	23.91
AMC 33	4	28.92888889	3.77421878	24.94888889	32.92888889	1.88224228	115.88888889	14.24221878	11.01
AMC 34	4	29.29888889	7.38412566	28.62888889	35.76888889	3.26649447	146.48888889	53.34221878	24.92
AMC 35	4	29.12221878	4.89821878	28.98888889	32.12888889	2.44821878	188.68888889	83.92221878	19.41
AMC 36	4	27.70888889	6.26422187	18.82888889	35.12888889	2.88125661	138.62888889	39.21221878	22.77
AMC 37	4	27.84221878	4.62221878	19.12888889	29.62888889	2.31412566	91.12888889	21.42221878	28.27

AMINO-GLUTAMINE POSITIVE

AMC 38	14	33.49188889	9.98221878	24.62888889	57.62888889	2.81221878	354.91888889	79.28888889	23.08
AMC 39	4	33.08888889	5.82221878	29.47888889	42.58888889	2.24622187	169.98888889	23.21888889	14.78
AMC 40	4	31.23888889	6.63521878	23.24888889	41.42888889	2.94721878	156.18888889	44.82888889	21.244
AMC 41	4	32.31888889	5.61821878	23.82888889	41.22888889	2.52821878	162.32888889	31.72221878	17.317
AMC 42	4	48.48288889	18.46822187	24.82888889	68.92888889	8.25921878	202.41888889	381.18221878	43.67
AMC 43	4	38.84288889	2.83712566	27.92888889	53.42888889	6.91125661	158.21888889	4.14221878	6.71
AMC 44	4	29.78888889	9.83221878	21.62888889	48.52888889	4.48712566	148.52888889	57.82221878	31.19

201

ERYTHROCYTE PUFF AMINO ACIDS
AMINO-GLYCINE

11149 NOV04, OCT0007 1. 0000

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	F.C.
PROCON	0	34.30000000	0.04279450	25.30000000	42.42000000	2.71190954	203.0000000	44.12947200	10.000
PROCON	1	29.62111111	0.07763360	20.00000000	37.00000000	3.24807425	70.0000000	82.40141111	10.000
PROCON	1	31.46000000	4.90271001	27.00000000	36.00000000	2.04474492	100.0000000	24.00000000	14.000
PROCON	1	31.46000000	9.75095440	24.00000000	42.00000000	5.01433322	93.0000000	9.23720000	11.000
PROCON	1	31.46000000	3.00217004	32.00000000	39.50000000	2.07071419	106.0000000	12.07661111	13.000
PROCON	1	29.72111111	4.34373409	24.00000000	32.00000000	2.90783054	80.0000000	10.00000000	14.000
PROCON	1	31.10000000	7.07465000	24.00000000	30.00000000	4.00453620	93.0000000	50.00000000	20.000

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	F.C.
PROCON	0	29.01555556	6.21652770	21.00000000	41.00000000	2.07004257	200.0000000	30.00000000	20.000
PROCON	1	26.41000000	0.01626370	10.00000000	33.00000000	2.69051406	132.0000000	36.00000000	20.000
PROCON	1	32.40200000	9.10230736	22.00000000	40.00000000	4.39110070	120.0000000	84.00000000	20.000
PROCON	1	31.73100000	0.30602127	17.00000000	31.00000000	2.07004257	126.0000000	43.00000000	20.000
PROCON	1	31.66200000	11.91314705	10.00000000	42.00000000	3.90673392	126.0000000	141.00000000	20.000
PROCON	1	24.07200000	5.63000000	16.00000000	30.00000000	2.32715332	124.0000000	31.00000000	20.000
PROCON	1	27.19250000	5.42240000	22.00000000	35.00000000	2.71124033	100.0000000	20.00000000	20.000

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	F.C.
PROCON	10	7.49700000	1.59050305	4.50000000	10.00000000	0.50531633	74.0000000	2.35346770	21.000
PROCON	1	0.34000000	1.12300000	4.50000000	7.00000000	0.30261914	32.0000000	1.06310000	17.000
PROCON	1	0.34000000	1.03197304	4.50000000	6.00000000	0.46151273	20.0000000	1.47000000	10.000
PROCON	1	0.34000000	0.00233107	5.00000000	7.00000000	0.30261914	32.0000000	0.16210000	31.000
PROCON	1	0.34000000	2.05694242	6.00000000	13.00000000	1.27706340	40.0000000	0.16210000	31.000
PROCON	1	0.34000000	1.02764003	3.00000000	8.00000000	0.00267076	31.0000000	3.71500000	31.000
PROCON	1	0.34000000	1.03233671	4.00000000	7.00000000	0.47213001	30.0000000	1.14500000	17.000

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	F.C.
PROCON	0	7.32000000	2.31600437	4.00000000	10.00000000	0.95391474	43.0000000	5.45927200	31.000
PROCON	1	5.21000000	0.34703352	4.00000000	5.00000000	0.31630072	13.0000000	0.31000000	10.000
PROCON	1	6.17000000	1.30140914	4.00000000	7.00000000	0.75142000	10.0000000	1.60000000	42.000
PROCON	1	7.20000000	3.00000000	4.00000000	10.00000000	1.70401233	21.0000000	1.40000000	10.000
PROCON	1	0.42566667	1.10211134	5.00000000	7.00000000	0.60337000	17.0000000	0.31000000	10.000
PROCON	1	5.04000000	0.56136124	5.00000000	6.00000000	0.32641146	17.0000000	0.31000000	10.000
PROCON	1	5.04000000	0.07100000	5.00000000	6.00000000	0.50000000	17.0000000	0.31000000	10.000

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	F.C.
PROCON	0	6.46111111	2.23200000	3.00000000	10.00000000	0.74433332	50.0000000	4.00000000	34.000
PROCON	1	0.00000000	2.02540000	2.00000000	0.00000000	1.00000000	20.0000000	0.00000000	40.000
PROCON	1	0.00000000	2.04514702	2.00000000	0.00000000	0.42253336	27.0000000	0.00000000	40.000
PROCON	1	0.00000000	1.70047360	2.00000000	7.00000000	1.70047360	20.0000000	2.00000000	23.000
PROCON	1	0.00000000	1.00000000	3.00000000	7.00000000	0.70000000	22.0000000	1.00000000	41.000
PROCON	1	0.00000000	2.31000000	0.00000000	6.00000000	1.00000000	20.0000000	0.00000000	10.000
PROCON	1	0.00000000	0.02320000	4.00000000	6.00000000	0.40103432	23.0000000	0.00000000	10.000

FRYTHURCVT FRI ARJUN ACJUN
AMJ'DONVURONTYPRJINF MSE-34

11147 - UMDA , OCTUBRE 11 , 1971

[illegible]

AMINOHYDROXYPROLINE Dose • 500 mg

[illegible]

AMINO-XYL-PROL-INE DOSE-1mg

Variable	Mean	SD	Min	Max	Q1	Q3	Median	Mode	Skewness	Kurtosis
unfcd	0.6	0.5	0	1	0.3	0.8	0.5	0.5	0.0	1.0
unfcd1	4.1	1.0	1	5	3.5	4.5	4.0	4.0	0.0	1.0
unfcd2	2.5	0.8	1	3	2.0	3.0	2.5	2.5	0.0	1.0
unfcd3	3.0	0.7	2	4	2.8	3.2	3.0	3.0	0.0	1.0
unfcd4	2.5	0.6	2	3	2.4	2.6	2.5	2.5	0.0	1.0
unfcd5	3.0	0.5	2	4	2.8	3.2	3.0	3.0	0.0	1.0
unfcd6	2.5	0.4	2	3	2.4	2.6	2.5	2.5	0.0	1.0
unfcd7	3.0	0.6	2	4	2.8	3.2	3.0	3.0	0.0	1.0
unfcd8	2.5	0.5	2	3	2.4	2.6	2.5	2.5	0.0	1.0
unfcd9	3.0	0.7	2	4	2.8	3.2	3.0	3.0	0.0	1.0
unfcd10	2.5	0.6	2	3	2.4	2.6	2.5	2.5	0.0	1.0
unfcd11	3.0	0.5	2	4	2.8	3.2	3.0	3.0	0.0	1.0
unfcd12	2.5	0.4	2	3	2.4	2.6	2.5	2.5	0.0	1.0
unfcd13	3.0	0.6	2	4	2.8	3.2	3.0	3.0	0.0	1.0
unfcd14	2.5	0.5	2	3	2.4	2.6	2.5	2.5	0.0	1.0
unfcd15	3.0	0.7	2	4	2.8	3.2	3.0	3.0	0.0	1.0
unfcd16	2.5	0.6	2	3	2.4	2.6	2.5	2.5	0.0	1.0
unfcd17	3.0	0.5	2	4	2.8	3.2	3.0	3.0	0.0	1.0
unfcd18	2.5	0.4	2	3	2.4	2.6	2.5	2.5	0.0	1.0
unfcd19	3.0	0.6	2	4	2.8	3.2	3.0	3.0	0.0	1.0
unfcd20	2.5	0.5	2	3	2.4	2.6	2.5	2.5	0.0	1.0

AMTMO-330LEUC.14F POSF-034

encc00	16	6.564600000	3.79291034	3.12000000	13.43000000	1.12003144	63.00000000	13.7100444	76.00000000
encc01	3	6.046000000	2.06591761	3.06000000	10.00000000	1.32630079	30.10000000	8.70643000	40.10000000
encc02	3	6.764000000	1.54729660	2.73000000	6.50000000	0.00973618	22.02000000	2.10000000	33.00000000
encc03	4	6.310000000	1.14647280	2.02000000	0.41000000	1.40446217	31.50000000	0.06232000	40.70000000
encc04	3	6.000000000	2.31790643	2.64000000	0.07000000	1.00492350	25.35000000	0.50000000	46.30000000
encc05	3	6.530000000	2.91430651	1.00000000	0.10000000	1.32131266	00.75000000	8.72000000	91.00000000
encc06	4	4.720000000	2.50023100	2.00000000	0.00000000	1.33000000			

AMINO-130L EUC. INC. N103E-030

00000	5.71459150	1.04000000	11.02000000	1.51647563	30.00260000	13.70019000	74.071000
00001	5.66466667	2.00000000	6.40000000	1.55211337	10.04000000	5.40461333	64.771000
00002	4.31000000	1.93722000	3.10000000	0.00473355	12.03000000	2.40700000	36.771000
00003	4.34666667	2.66713934	2.40000000	1.53607373	13.04000000	7.13613333	41.771000
00004	4.44133333	2.10253022	2.10000000	1.71340639	13.33000000	4.42013333	47.171000
00005	3.17313333	1.07145467	1.00000000	1.10000000	9.32000000	3.00613333	62.171000
00006	4.37666667	1.02104324	1.00000000	1.13071006			

FEATURACYTE FREE AMINO ACIDS
AMINO-ISOLEUCINE POSITIVE

1147 MONDAY, OCTOBER 1 1957

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIABLE
AMC00	0	0.0000000	4.26010933	3.1500000	10.4100000	1.42303644	02.6600000	10.2237444
AMC01	3	0.1220000	2.32207968	2.1600000	7.6000000	1.03802337	23.0400000	0.3037700
AMC02	4	0.1220000	1.79410419	0.3200000	10.3100000	0.09290290	32.4200000	3.2190000
AMC03	3	0.4000000	1.3914311	2.2300000	5.4200000	0.07827220	17.0400000	1.0427000
AMC04	4	2.4720000	2.70448163	4.0100000	11.1800000	1.37720102	29.0900000	7.0000000
AMC05	5	3.0900000	1.79097222	2.0000000	6.8000000	0.0401041	19.0000000	3.2190000
AMC06	4	7.0300000	1.7600000	4.4400000	8.3300000	0.0034476	28.2200000	3.1212000

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIABLE
AMC07	10	0.0300000	3.60377202	3.4700000	16.1700000	1.14030073	06.3000000	13.0034000
AMC08	9	0.4320000	1.97200110	0.1000000	11.2000000	0.00124331	42.1000000	3.0012000
AMC09	9	7.1700000	2.92063019	3.0500000	11.3600000	1.10017930	35.7000000	0.3000000
AMC10	9	7.4800000	2.00014100	5.1400000	10.0500000	0.93304126	37.4200000	4.3200000
AMC11	9	9.2000000	2.00711005	7.0100000	12.7000000	1.16001345	46.4100000	6.2012000
AMC12	9	7.2000000	1.00311023	5.2000000	8.0200000	0.46672310	36.4100000	1.0000000
AMC13	9	7.3100000	1.70743700	5.4100000	9.0000000	0.00303029	37.3700000	3.2307000

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIABLE
AMC14	0	7.0300000	2.93300217	4.0000000	12.7000000	1.10024432	45.0000000	0.0147000
AMC15	9	5.4400000	0.01010020	4.0000000	6.0000000	0.3321676	16.3400000	0.3221000
AMC16	9	7.0400000	2.07943101	5.0000000	9.0000000	1.20030405	22.9000000	4.3200000
AMC17	9	6.1000000	1.22341150	4.0000000	7.3000000	0.70749166	19.3000000	1.3010000
AMC18	9	7.0000000	3.50100430	5.0000000	11.0000000	2.02176767	23.6000000	12.2020000
AMC19	9	2.0000000	7.00741313	5.1000000	0.3700000	0.00022316	17.0000000	0.3000000
AMC20	9	0.0000000	2.00070000	4.1400000	0.3100000	1.90154305	20.0000000	0.7030000

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIABLE
AMC21	9	7.2000000	2.31642749	4.4000000	10.4000000	0.77214240	03.0000000	5.0000000
AMC22	9	5.3000000	1.93217050	2.2400000	7.3500000	0.07303723	26.6000000	3.0000000
AMC23	4	7.9300000	1.90354054	6.0700000	10.6400000	0.02277227	31.7400000	3.0000000
AMC24	9	4.0000000	1.32940000	2.4000000	5.0000000	0.30450371	23.4000000	1.7020000
AMC25	4	7.0000000	3.23331677	4.0000000	12.4000000	1.01660030	31.0000000	10.0000000
AMC26	9	7.0000000	1.70772050	2.7200000	7.2000000	0.76371093	23.3200000	2.0000000
AMC27	4	7.0000000	2.10003277	5.0000000	10.7400000	1.00001030	31.3000000	4.7000000

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIABLE
AMC28	10	0.0000000	2.0000000	5.0000000	11.0000000	0.00103110	00.0000000	4.3000000
AMC29	9	0.2100000	1.54002677	0.3700000	10.0000000	0.00200000	46.0000000	2.3000000
AMC30	9	5.0000000	1.20007010	3.7400000	7.2000000	0.30301003	27.0000000	1.5000000
AMC31	9	0.7000000	1.2700000	7.4100000	10.1000000	0.50000000	43.0000000	1.3000000
AMC32	9	0.4000000	2.27101360	5.7600000	13.0000000	1.40200000	47.0000000	10.0000000
AMC33	9	7.3000000	2.30772005	4.1000000	9.0000000	1.00700000	36.0000000	3.2000000
AMC34	9	5.0000000	0.00700000	4.3000000	6.5000000	0.40144240	20.0000000	0.0000000

	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD. FROM OF MEAN	SUM	VARIANCE
1	10.21166667	2.44184444	6.12000000	13.60000000	0.00602637	61.22000000	0.00363167
2	0.03000000	1.06107400	0.71000000	0.00000000	1.07447213	20.00000000	0.00113917
3	0.03666667	0.20684240	0.10000000	0.30000000	0.40007907	26.00000000	0.00160011
4	0.74666667	2.39879439	2.20000000	12.40000000	1.30841476	29.20000000	0.00172133
5	0.10000000	0.02146711	0.10000000	0.10000000	0.47427137	27.40000000	0.00224707
6	0.01000000	1.25453121	0.00000000	0.36000000	0.72431777	24.00000000	0.00525000
7	2.16000000	0.52323650	0.00000000	7.00000000	0.30237945	22.00000000	0.00091486

NAME	AMINO ACIDS	DNF = 100
1. 11666667	2. 29043129	11. 60000000
2. 16200000	3. 32200434	12. 60000000
3. 10000000	4. 20000000	13. 60000000
4. 10000000	5. 10000000	14. 60000000
5. 10000000	6. 10000000	15. 60000000
6. 10000000	7. 10000000	16. 60000000
7. 10000000	8. 10000000	17. 60000000
8. 10000000	9. 10000000	18. 60000000
9. 10000000	10. 10000000	19. 60000000
10. 10000000	11. 10000000	20. 60000000
11. 10000000	12. 10000000	21. 60000000
12. 10000000	13. 10000000	22. 60000000
13. 10000000	14. 10000000	23. 60000000
14. 10000000	15. 10000000	24. 60000000
15. 10000000	16. 10000000	25. 60000000
16. 10000000	17. 10000000	26. 60000000
17. 10000000	18. 10000000	27. 60000000
18. 10000000	19. 10000000	28. 60000000
19. 10000000	20. 10000000	29. 60000000
20. 10000000	21. 10000000	30. 60000000
21. 10000000	22. 10000000	31. 60000000
22. 10000000	23. 10000000	32. 60000000
23. 10000000	24. 10000000	33. 60000000
24. 10000000	25. 10000000	34. 60000000
25. 10000000	26. 10000000	35. 60000000
26. 10000000	27. 10000000	36. 60000000
27. 10000000	28. 10000000	37. 60000000
28. 10000000	29. 10000000	38. 60000000
29. 10000000	30. 10000000	39. 60000000
30. 10000000	31. 10000000	40. 60000000
31. 10000000	32. 10000000	41. 60000000
32. 10000000	33. 10000000	42. 60000000
33. 10000000	34. 10000000	43. 60000000
34. 10000000	35. 10000000	44. 60000000
35. 10000000	36. 10000000	45. 60000000
36. 10000000	37. 10000000	46. 60000000
37. 10000000	38. 10000000	47. 60000000
38. 10000000	39. 10000000	48. 60000000
39. 10000000	40. 10000000	49. 60000000
40. 10000000	41. 10000000	50. 60000000
41. 10000000	42. 10000000	51. 60000000
42. 10000000	43. 10000000	52. 60000000
43. 10000000	44. 10000000	53. 60000000
44. 10000000	45. 10000000	54. 60000000
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46. 10000000	47. 10000000	56. 60000000
47. 10000000	48. 10000000	57. 60000000
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49. 10000000	50. 10000000	59. 60000000
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57. 10000000	58. 10000000	67. 60000000
58. 10000000	59. 10000000	68. 60000000
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61. 10000000	62. 10000000	71. 60000000
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64. 10000000	65. 10000000	74. 60000000
65. 10000000	66. 10000000	75. 60000000
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83. 10000000	84. 10000000	93. 60000000
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AMINO-ETHANOL	0.05-100
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0.10	0.10
0.20	0.20
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1.00	1.00
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10.00	10.00
20.00	20.00
50.00	50.00
100.00	100.00

STATION	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD DEVIATION OF MEAN	STATION	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD DEVIATION OF MEAN
10	1.70300000	0.00912369	0.10000000	3.10000000	0.28306100	19	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
1	1.40400000	1.44010402	0.01000000	3.01000000	0.64400007	20	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
2	1.00000000	1.01700164	0.10000000	0.10000000	0.45912106	21	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
3	1.31200000	1.70433613	0.01000000	4.50000000	0.70000000	22	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
4	1.10000000	1.17427424	0.10000000	0.10000000	0.32515141	23	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
5	1.31000000	1.42743356	0.01000000	3.77000000	0.63707027	24	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
6	0.40000000	0.39412202	0.00000000	1.00000000	0.17630691	25	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000

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PHOTOGRAPHY UNIT ADJUTANT GENERAL
ARMY OF THE UNITED STATES

MONDAY, MAY 11

	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE
1	10.00000000	3.27334400	7.25000000	17.00000000	1.00111935	97.22000000	10.71472444
2	10.10000000	1.71967314	8.60000000	12.00000000	0.75072087	70.67000000	2.01739000
3	11.30000000	9.41660103	5.00000000	16.50000000	2.70030051	46.34000000	29.19756667
4	9.70000000	1.61093003	8.20000000	11.20000000	0.71900402	48.72000000	1.54000000
5	10.20000000	5.73602169	4.00000000	16.00000000	2.06049603	40.00000000	32.01206667
6	9.00000000	1.00940144	8.10000000	11.00000000	0.52981223	47.27000000	1.20000000
7	9.10000000	3.10572210	6.20000000	12.30000000	1.30263003	36.73000000	10.14323000
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10	2.16700000	1.30000000	0.19000000	0.00726726	50.73000000	4.00707273	0.71000000
11	2.17000000	1.31000000	1.41000000	0.79673082	35.60000000	3.17300000	0.71000000
12	2.17000000	1.32000000	1.61000000	1.15175758	30.00000000	6.63200000	0.71000000
13	2.17000000	1.33000000	1.81000000	0.83467119	34.35000000	3.40100000	0.71000000
14	2.17000000	1.34000000	2.01000000	0.92175051	30.01000000	4.20000000	0.71000000
15	2.17000000	1.35000000	2.20000000	0.72500000	27.00000000	1.00000000	0.71000000
16	2.17000000	1.36000000	2.39000000	1.07413136	20.23000000	7.24400000	0.71000000
17	2.16700000	1.37000000	2.58000000	0.00726726	50.73000000	4.00707273	0.71000000
18	2.16700000	1.38000000	2.77000000	0.79673082	35.60000000	3.17300000	0.71000000
19	2.16700000	1.39000000	2.96000000	1.15175758	30.00000000	6.63200000	0.71000000
20	2.16700000	1.40000000	3.15000000	0.83467119	34.35000000	3.40100000	0.71000000
21	2.16700000	1.41000000	3.34000000	0.92175051	30.01000000	4.20000000	0.71000000
22	2.16700000	1.42000000	3.53000000	0.72500000	27.00000000	1.00000000	0.71000000
23	2.16700000	1.43000000	3.72000000	1.07413136	20.23000000	7.24400000	0.71000000
24	2.16700000	1.44000000	3.91000000	0.00726726	50.73000000	4.00707273	0.71000000
25	2.16700000	1.45000000	4.10000000	0.79673082	35.60000000	3.17300000	0.71000000
26	2.16700000	1.46000000	4.29000000	1.15175758	30.00000000	6.63200000	0.71000000
27	2.16700000	1.47000000	4.48000000	0.83467119	34.35000000	3.40100000	0.71000000
28	2.16700000	1.48000000	4.67000000	0.92175051	30.01000000	4.20000000	0.71000000
29	2.16700000	1.49000000	4.86000000	0.72500000	27.00000000	1.00000000	0.71000000
30	2.16700000	1.50000000	5.05000000	1.07413136	20.23000000	7.24400000	0.71000000

ADMINISTRATIVE INSTRUCTIONS

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AMINO-PHENYL ALANINE PAGE-101

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AMERICAN POLICE INST 034 ---

9	3.82034993	2.85000000	21.82000000	1.44862436	138.61000000	33.82000000	44.774
11	4.13200000	4.43000000	14.74000000	1.81077415	37.66000000	15.76000000	42.009
9	11.14200000	7.02066227	3.00000000	3.19740003	55.91000000	49.20012000	47.796
9	9.38400000	4.74621324	1.02000000	5.03800000	46.02000000	22.92671000	41.570
9	11.33400000	6.41118418	2.00000000	10.10000000	37.60000000	48.10227000	99.043
9	9.27400000	3.81767220	3.10000000	15.10000000	1.70646350	14.70000000	41.116
9	9.16200000	4.30836173	2.83000000	13.00000000	2.83633533	48.81000000	90.341

FRYINGCYTE PCF AMINO ACIDS
AMINO-PROLINF DOSE-50

1144 MONDAY, OCTOBER 1, 1971

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	RUN	VARIANCE	C.V.
PCF001	4	12.06666667	3.01631892	7.31000000	18.53000000	1.50800732	76.01000000	14.96910007	30.1%
PCF002	4	10.96666667	2.00667133	8.41000000	12.62000000	1.00464407	32.64000000	4.19011111	19.0%
PCF003	4	6.93333333	1.63149126	5.30000000	8.49000000	0.81572263	19.93000000	2.73401111	19.0%
PCF004	4	13.96666667	4.96119273	8.50000000	18.32000000	2.48143596	41.90000000	24.01333333	24.4%
PCF005	4	8.00000000	1.72101196	6.43000000	9.60000000	0.86000000	20.42000000	2.96463333	19.4%
PCF006	4	9.42000000	4.72479620	5.10000000	14.60000000	2.38000000	28.26000000	22.32700000	19.1%
PCF007	4	11.39333333	0.96524274	10.60000000	12.53000000	0.53780279	34.70000000	0.93301111	9.1%

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	RUN	VARIANCE	C.V.
PCF008	4	18.77777778	3.37137130	4.65000000	16.10000000	1.68379043	97.00000000	11.76614444	31.2%
PCF009	4	10.65000000	3.62875730	7.41000000	16.02000000	1.62242963	53.20000000	17.16700000	34.1%
PCF010	4	9.01000000	5.33271810	3.03000000	15.21000000	2.66135110	39.20000000	28.43700000	44.3%
PCF011	4	18.21000000	2.24364662	7.52000000	12.23000000	1.04265390	51.13000000	9.64270000	14.3%
PCF012	4	7.10000000	4.05046399	2.13000000	13.30000000	2.02523193	28.64000000	23.52700000	21.0%
PCF013	4	11.14000000	3.30474061	9.60000000	14.31000000	1.62792996	53.74000000	10.92133333	17.4%
PCF014	4	6.72790000	6.00723224	4.17000000	18.00000000	3.00301612	34.20000000	41.05262500	74.7%

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	RUN	VARIANCE	C.V.
PCF015	4	20.23333333	5.41010763	13.40000000	32.00000000	1.71338466	207.53000000	29.35642728	26.1%
PCF016	4	19.34000000	3.37405637	13.72000000	24.54000000	1.68092470	97.20000000	11.36427000	17.2%
PCF017	4	15.90000000	1.70010252	14.00000000	18.50000000	0.85017189	79.00000000	3.10001000	11.4%
PCF018	4	17.27200000	1.01663300	15.33000000	19.00000000	0.50724277	86.36000000	3.30017000	10.5%
PCF019	4	16.91600000	3.30283120	12.94000000	21.50000000	1.60229060	84.70000000	12.03600000	12.1%
PCF020	4	15.30000000	1.17105300	14.00000000	17.10000000	0.58371115	77.90000000	1.37317000	7.5%
PCF021	4	15.10000000	3.92065200	11.00000000	21.42000000	1.73000637	79.53000000	15.43360000	26.0%

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	RUN	VARIANCE	C.V.
PCF022	4	16.51000000	1.75400711	14.90000000	18.72000000	0.87613305	99.11000000	3.02009667	18.6%
PCF023	4	14.20000000	2.71304107	12.40000000	17.43000000	1.36003007	42.09000000	7.36401111	18.2%
PCF024	4	15.12333333	4.25022151	12.30000000	20.03000000	2.12415521	45.37000000	18.00001111	28.1%
PCF025	4	16.82666667	2.75122397	14.23000000	19.71000000	1.38041900	50.40000000	7.30921111	18.3%
PCF026	4	14.90000000	2.72310701	11.93000000	17.30000000	1.40221020	44.90000000	2.80123333	18.2%
PCF027	4	12.94000000	1.67919624	11.42000000	14.77000000	0.84964444	38.02000000	2.01700000	15.2%
PCF028	4	15.22333333	2.04927777	13.94000000	18.00000000	1.04331996	47.17000000	8.12123333	18.1%

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	RUN	VARIANCE	C.V.
PCF029	4	16.20000000	3.01013235	11.93000000	24.40000000	1.50338412	131.00000000	13.03320000	21.5%
PCF030	4	13.87200000	3.34372090	11.50000000	20.72000000	1.68335748	73.00000000	11.00470000	22.0%
PCF031	4	17.19400000	4.21640032	11.32000000	20.30000000	2.10024025	68.70000000	17.77001111	24.4%
PCF032	4	16.30000000	3.32000000	10.02000000	18.00000000	1.51106703	71.00000000	11.41061000	21.0%
PCF033	4	16.10750000	4.21541700	10.00000000	22.22000000	2.13270053	64.70000000	22.23100000	29.1%
PCF034	4	14.45000000	3.10074271	9.63000000	18.23000000	1.50669752	72.25000000	9.01463000	21.4%
PCF035	4	13.40000000	2.210025214	12.41000000	17.00000000	1.10312607	81.00000000	7.34760000	17.4%

PRYTHONCVT FIVE AMPHO ACINQ
AMINO-TWFFNUPHUT POT-ION

10047 10048, 10049, 10050

STANDARD	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD DEVIATION OF MEAN	SUM	VARIANCE
7.0000	7.00000000	3.26032214	0.00000000	13.30000000	1.00000000	70.00000000	10.00000000
8.0000	8.00000000	1.06147048	0.00000000	11.00000000	0.00000000	80.00000000	64.00000000
9.0000	9.00000000	2.30191113	0.00000000	9.00000000	1.00000000	90.00000000	81.00000000
10.0000	7.23400000	2.2149175	5.34000000	10.00000000	0.00000000	72.34000000	52.34000000
11.0000	5.33000000	2.91644761	2.34000000	9.33000000	1.45000000	53.30000000	28.30000000
12.0000	8.13000000	1.10061118	4.30000000	8.13000000	0.00000000	81.30000000	66.10000000
13.0000	4.00000000	1.61985603	3.30000000	6.00000000	0.00000000	40.00000000	16.00000000

-----	ANALYSIS	-----	ANALYSIS	-----
1	1.1000000	1	1.1000000	1.1000000
2	1.1400000	2	1.1400000	1.1400000
3	1.1500000	3	1.1500000	1.1500000
4	1.1600000	4	1.1600000	1.1600000
5	1.1700000	5	1.1700000	1.1700000
6	1.1800000	6	1.1800000	1.1800000
7	1.1900000	7	1.1900000	1.1900000
8	1.2000000	8	1.2000000	1.2000000
9	1.2100000	9	1.2100000	1.2100000
10	1.2200000	10	1.2200000	1.2200000
11	1.2300000	11	1.2300000	1.2300000
12	1.2400000	12	1.2400000	1.2400000
13	1.2500000	13	1.2500000	1.2500000
14	1.2600000	14	1.2600000	1.2600000
15	1.2700000	15	1.2700000	1.2700000
16	1.2800000	16	1.2800000	1.2800000
17	1.2900000	17	1.2900000	1.2900000
18	1.3000000	18	1.3000000	1.3000000
19	1.3100000	19	1.3100000	1.3100000
20	1.3200000	20	1.3200000	1.3200000
21	1.3300000	21	1.3300000	1.3300000
22	1.3400000	22	1.3400000	1.3400000
23	1.3500000	23	1.3500000	1.3500000
24	1.3600000	24	1.3600000	1.3600000
25	1.3700000	25	1.3700000	1.3700000
26	1.3800000	26	1.3800000	1.3800000
27	1.3900000	27	1.3900000	1.3900000
28	1.4000000	28	1.4000000	1.4000000
29	1.4100000	29	1.4100000	1.4100000
30	1.4200000	30	1.4200000	1.4200000
31	1.4300000	31	1.4300000	1.4300000
32	1.4400000	32	1.4400000	1.4400000
33	1.4500000	33	1.4500000	1.4500000
34	1.4600000	34	1.4600000	1.4600000
35	1.4700000	35	1.4700000	1.4700000
36	1.4800000	36	1.4800000	1.4800000
37	1.4900000	37	1.4900000	1.4900000
38	1.5000000	38	1.5000000	1.5000000
39	1.5100000	39	1.5100000	1.5100000
40	1.5200000	40	1.5200000	1.5200000
41	1.5300000	41	1.5300000	1.5300000
42	1.5400000	42	1.5400000	1.5400000
43	1.5500000	43	1.5500000	1.5500000
44	1.5600000	44	1.5600000	1.5600000
45	1.5700000	45	1.5700000	1.5700000
46	1.5800000	46	1.5800000	1.5800000
47	1.5900000	47	1.5900000	1.5900000
48	1.6000000	48	1.6000000	1.6000000
49	1.6100000	49	1.6100000	1.6100000
50	1.6200000	50	1.6200000	1.6200000
51	1.6300000	51	1.6300000	1.6300000
52	1.6400000	52	1.6400000	1.6400000
53	1.6500000	53	1.6500000	1.6500000
54	1.6600000	54	1.6600000	1.6600000
55	1.6700000	55	1.6700000	1.6700000
56	1.6800000	56	1.6800000	1.6800000
57	1.6900000	57	1.6900000	1.6900000
58	1.7000000	58	1.7000000	1.7000000
59	1.7100000	59	1.7100000	1.7100000
60	1.7200000	60	1.7200000	1.7200000

	ANINO-TYPIPMAN	ON-8-30
PACR01	.	.
PACR10	.	.
ENCR03	.	.
ENCR04	.	.
ENCR09	.	.
PACR12	.	.
PACR13	.	.

	AMINO-TRYPTOPHAN	DMSO-100
PALOM	.	.
BHTDUN	.	.
BATODS	.	.
BATGAW	.	.
BHCGM	.	.
BATCJN	.	.
FACUJSM	.	.

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

PHYSIOLOGICAL AND ANIMAL ACTIONS

11147 MONDAY, "TITANIC"

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE
PRC001	4	6.28133333	1.82988168	4.48000000	9.66000000	0.74794663	37.70000000	3.34910000
PRC002	1	7.08666667	1.70840001	6.48000000	9.26000000	0.00000000	23.97000000	2.91666667
PRC003	3	7.47666667	1.23900000	6.34000000	8.60000000	0.70610072	22.43000000	1.53933333
PRC004	1	6.22133333	1.62463329	7.49000000	10.64000000	0.00000000	27.40000000	2.68933333
PRC005	1	6.72133333	0.83239676	6.32000000	7.72000000	0.00000000	26.47000000	0.69233333
PRC006	1	6.76666667	0.96892969	6.30000000	7.42000000	0.00000000	20.00000000	0.93733333
PRC007	3	7.46333333	1.96968741	5.60000000	8.46000000	0.90639663	22.20000000	3.88000000
PRC008	4	7.90222222	1.84821383	2.20000000	8.42000000	0.61607128	31.70000000	3.35733333
PRC009	1	9.30600000	2.80391479	7.20000000	12.40000000	0.00000000	47.00000000	7.64000000
PRC010	4	12.00000000	4.07206667	8.20000000	16.72000000	2.30639623	48.00000000	16.64000000
PRC011	4	18.67000000	3.77326364	7.01000000	17.10000000	1.88743449	75.00000000	14.16000000
PRC012	4	9.74300000	2.06002248	6.84000000	13.70000000	1.43101324	39.00000000	4.24000000
PRC013	4	9.44200000	1.31262024	8.00000000	11.00000000	0.66448416	47.20000000	1.72000000
PRC014	4	9.93750000	3.81156334	6.65000000	18.00000000	2.02370267	39.60000000	14.72000000
PRC015	1	10.70200000	3.38955342	11.20000000	20.40000000	1.40432717	107.00000000	11.36000000
PRC016	1	17.00000000	6.82106624	12.70000000	28.42000000	2.71300627	17.00000000	46.90000000
PRC017	1	16.68000000	7.27933962	7.90000000	27.94000000	3.73316264	16.00000000	54.76000000
PRC018	1	16.31200000	3.14877278	12.00000000	20.20000000	1.40813399	81.00000000	9.91200000
PRC019	1	11.46600000	3.88714789	7.62000000	21.70000000	2.2392661	77.20000000	14.90000000
PRC020	1	17.00000000	3.90382266	12.00000000	22.37000000	1.74371462	78.00000000	13.94000000
PRC021	1	13.31200000	4.82929181	3.20000000	17.40000000	2.80268283	68.56000000	23.00000000
PRC022	4	14.07813333	4.74998713	7.70000000	22.00000000	1.93334886	88.40000000	22.94000000
PRC023	3	16.91000000	1.52903467	9.00000000	17.60000000	0.88270648	50.70000000	2.31000000
PRC024	3	13.87333333	1.88813808	12.70000000	14.70000000	0.62716212	41.90000000	1.07333333
PRC025	3	12.96333333	3.17150791	10.00000000	18.00000000	1.83117291	38.00000000	10.00000000
PRC026	1	13.66333333	4.69181392	11.70000000	18.24000000	2.33838837	48.60000000	18.40000000
PRC027	3	14.24000000	3.58613396	10.70000000	20.70000000	3.06188818	42.72000000	10.60000000
PRC028	3	12.24000000	2.58642078	10.10000000	13.10000000	1.48988279	36.72000000	6.70000000
PRC029	4	13.90111111	1.804344623	11.20000000	18.20000000	0.44868288	55.60000000	3.24000000
PRC030	4	13.35600000	2.36889134	11.30000000	17.10000000	1.03938113	53.20000000	5.41000000
PRC031	4	13.68700000	1.77773748	12.64000000	14.76000000	1.66867804	54.90000000	3.12000000
PRC032	4	12.30000000	1.65908107	10.40000000	14.00000000	0.74495381	49.60000000	2.75250000
PRC033	4	14.70300000	4.90869723	9.30000000	20.00000000	2.45834881	59.00000000	13.436
PRC034	4	13.70200000	3.64379884	9.65000000	17.30000000	1.82915638	54.80000000	13.4092
PRC035	4	12.72000000	1.87819721	11.30000000	13.30000000	0.71947961	51.00000000	3.4042

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ERYTHROCYTE FREE AMINO ACIDS									
AMINO-1/20CYSTINE NOSE-34									
1145 MONDAY, OCTOBER 3, 1977									
VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	D.F.
AMINO-1/20CYSTINE									
00000	1	.	.	.	.	.	.	.	.
00001	1	.	.	.	.	.	.	.	.
00002	1	.	.	.	.	.	.	.	.
00003	1	.	.	.	.	.	.	.	.
00004	1	.	.	.	.	.	.	.	.
00005	1	.	.	.	.	.	.	.	.
00006	1	.	.	.	.	.	.	.	.
00007	1	.	.	.	.	.	.	.	.
00008	1	.	.	.	.	.	.	.	.
00009	1	.	.	.	.	.	.	.	.
00010	1	.	.	.	.	.	.	.	.
00011	1	.	.	.	.	.	.	.	.
00012	1	.	.	.	.	.	.	.	.
00013	1	.	.	.	.	.	.	.	.
00014	1	.	.	.	.	.	.	.	.
00015	1	.	.	.	.	.	.	.	.
00016	1	.	.	.	.	.	.	.	.
00017	1	.	.	.	.	.	.	.	.
00018	1	.	.	.	.	.	.	.	.
00019	1	.	.	.	.	.	.	.	.
00020	1	.	.	.	.	.	.	.	.
00021	1	.	.	.	.	.	.	.	.
00022	1	.	.	.	.	.	.	.	.
00023	1	.	.	.	.	.	.	.	.
00024	1	.	.	.	.	.	.	.	.
00025	1	.	.	.	.	.	.	.	.
00026	1	.	.	.	.	.	.	.	.
00027	1	.	.	.	.	.	.	.	.
00028	1	.	.	.	.	.	.	.	.
00029	1	.	.	.	.	.	.	.	.
00030	1	.	.	.	.	.	.	.	.
00031	1	.	.	.	.	.	.	.	.
00032	1	.	.	.	.	.	.	.	.
00033	1	.	.	.	.	.	.	.	.
00034	1	.	.	.	.	.	.	.	.
00035	1	.	.	.	.	.	.	.	.
00036	1	.	.	.	.	.	.	.	.
00037	1	.	.	.	.	.	.	.	.
00038	1	.	.	.	.	.	.	.	.
00039	1	.	.	.	.	.	.	.	.
00040	1	.	.	.	.	.	.	.	.
00041	1	.	.	.	.	.	.	.	.
00042	1	.	.	.	.	.	.	.	.
00043	1	.	.	.	.	.	.	.	.
00044	1	.	.	.	.	.	.	.	.
00045	1	.	.	.	.	.	.	.	.
00046	1	.	.	.	.	.	.	.	.
00047	1	.	.	.	.	.	.	.	.
00048	1	.	.	.	.	.	.	.	.
00049	1	.	.	.	.	.	.	.	.
00050	1	.	.	.	.	.	.	.	.
AMINO-1/20CYSTINE									
00051	1	.	.	.	.	.	.	.	.
00052	1	.	.	.	.	.	.	.	.
00053	1	.	.	.	.	.	.	.	.
00054	1	.	.	.	.	.	.	.	.
00055	1	.	.	.	.	.	.	.	.
00056	1	.	.	.	.	.	.	.	.
00057	1	.	.	.	.	.	.	.	.
00058	1	.	.	.	.	.	.	.	.
00059	1	.	.	.	.	.	.	.	.
00060	1	.	.	.	.	.	.	.	.
00061	1	.	.	.	.	.	.	.	.
00062	1	.	.	.	.	.	.	.	.
00063	1	.	.	.	.	.	.	.	.
00064	1	.	.	.	.	.	.	.	.
00065	1	.	.	.	.	.	.	.	.
00066	1	.	.	.	.	.	.	.	.
00067	1	.	.	.	.	.	.	.	.
00068	1	.	.	.	.	.	.	.	.
00069	1	.	.	.	.	.	.	.	.
00070	1	.	.	.	.	.	.	.	.
00071	1	.	.	.	.	.	.	.	.
00072	1	.	.	.	.	.	.	.	.
00073	1	.	.	.	.	.	.	.	.
00074	1	.	.	.	.	.	.	.	.
00075	1	.	.	.	.	.	.	.	.
00076	1	.	.	.	.	.	.	.	.
00077	1	.	.	.	.	.	.	.	.
00078	1	.	.	.	.	.	.	.	.
00079	1	.	.	.	.	.	.	.	.
00080	1	.	.	.	.	.	.	.	.
00081	1	.	.	.	.	.	.	.	.
00082	1	.	.	.	.	.	.	.	.
00083	1	.	.	.	.	.	.	.	.
00084	1	.	.	.	.	.	.	.	.
00085	1	.	.	.	.	.	.	.	.
00086	1	.	.	.	.	.	.	.	.
00087	1	.	.	.	.	.	.	.	.
00088	1	.	.	.	.	.	.	.	.
00089	1	.	.	.	.	.	.	.	.
00090	1	.	.	.	.	.	.	.	.
00091	1	.	.	.	.	.	.	.	.
00092	1	.	.	.	.	.	.	.	.
00093	1	.	.	.	.	.	.	.	.
00094	1	.	.	.	.	.	.	.	.
00095	1	.	.	.	.	.	.	.	.
00096	1	.	.	.	.	.	.	.	.
00097	1	.	.	.	.	.	.	.	.
00098	1	.	.	.	.	.	.	.	.
00099	1	.	.	.	.	.	.	.	.
00100	1	.	.	.	.	.	.	.	.

PLASMA AMINO ACID LEVELS (umoles/dl)

SUBJECT Heinland DATE 2-22-77 TEST MATERIAL ADP-4000WEIGHT 9.94 kg DOSE ADM. 34 mg/kg

AMINO ACID	0	30 min	50 min	120 min
TAURINE	11.59	10.69	8.20	5.05
ASPARTATE	9.54	12.24	5.85	2.10
THREONINE	16.55	17.99	11.02	5.15
SERINE	59.92	77.27	39.12	17.73
ASPARAGINE	4.56	4.62	2.60	3.22
GLUTAMINE	44.77	41.82	49.50	52.10
GLUTAMATE	11.23	10.50	7.91	5.51
PROLINE	27.07	20.93	15.47	17.87
CITRULLINE	2.99	2.88	2.59	1.40
GLYCINE	46.98	52.37	30.81	17.04
ALANINE	35.50	41.90	25.50	19.60
α -AMINOBUTYRATE	2.99	3.10	2.39	3.00
VALINE	35.27	30.63	22.96	27.73
4-CYSTINE	4.11	5.54	4.44	5.12
METHIONINE	2.42	1.91	1.71	1.84
ISOLEUCINE	11.68	6.29	5.81	5.32
LEUCINE	16.76	12.01	11.24	14.36
TYROSINE	9.14	9.63	6.36	6.73
PHENYLALANINE	1.67	1.15	9.01	8.76
ORNITHINE	25.72	30.06	15.44	9.11
LYSINE	9.11	9.26	12.51	15.00
HISTIDINE	7.31	3.00	1.00	3.33
ARGININE	6.51	5.24	5.11	5.61
TRYPTOPHAN	5.92	1.80	2.92	1.95
HYDROXYPROLINE	1.5	2.1	2.04	2.0

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PLASMA AMINO ACID LEVELS (umoles/dl)

SUBJECT Rogers DATE 3-22-77 TEST MATERIAL APM-4000

WEIGHT 10.48 Kg DOSE ADM. 24 mg/kg

AMINO ACID	0	45 min	90 min	150 min
TAURINE	13.69	3.00	2.71	7.84
ASPARTATE	9.05	7.77	3.45	5.40
THREONINE	14.47	13.23	9.03	11.07
SERINE	46.37	41.54	20.06	28.63
ASPARAGINE	5.54	6.48	2.42	4.24
GLUTAMINE	66.4	68.0	59.2	63.6
GLUTAMATE	11.59	12.57	10.01	14.59
PROLINE	26.23	30.58	19.89	21.66
CITRULLINE	4.38	4.62	3.43	4.57
GLYCINE	39.04	32.87	19.07	27.27
ALANINE	34.5	30.7	21.1	30.4
α -AMINO BUTYRATE	2.95	3.70	3.54	4.54
VALINE	34.64	27.89	33.83	40.11
γ -CYSTINE	4.69	4.53	5.67	7.83
METHIONINE	2.40	2.14	1.53	1.73
ISOLEUCINE	9.24	7.58	8.27	16.28
LEUCINE	15.99	16.48	17.72	24.19
TYROSINE	12.07	13.23	9.21	9.41
PHE... ALANINE	7.29	15.06	9.30	9.65
ORNITHINE	23.21	20.05	10.51	12.15
LYSINE	10.44	10.71	10.53	10.21
HISTIDINE	3.03	3.24	5.2	3.0
ARGININE	5.15	5.40	5.20	6.72
TRYPTOPHAN	5.07	5.2	5.70	5.10
HYDROXYPROLINE	1.15	1.13	1.05	1.0

PLASMA AMINO ACID LEVELS (umoles/dl)

SUBJECT Taylor DATE 3-9-77 TEST MATERIAL APM-4001 251
 WEIGHT 9.57 kg DOSE ADM. 33 mg/kg

AMINO ACID	0	45 min	90 min	150 min.	
TAURINE	7.67	7.03	7.95	6.41	
ASPARTATE	5.54	2.91	4.27	5.46	
THREONINE	11.23	7.76	9.39	9.76	
SERINE	34.71	21.12	29.30	33.07	
ASPARAGINE	1.23	1.13	1.33	0.77	
GLUTAMINE	44.52	40.93	45.23	48.09	
GLUTAMATE	6.86	6.18	7.45	5.42	
PROLINE	10.07	8.42	9.51	9.70	
CITRULLINE	2.66	1.70	2.25	2.70	
GLYCINE	29.50	19.02	25.26	27.63	
ALANINE	27.00	19.60	24.20	25.10	
α -AMINO BUTYRATE	2.67	2.64	2.88	3.17	
VALINE	21.99	18.59	20.97	21.88	
γ -CYSTINE	8.21	7.74	8.86	9.44	
METHIONINE	2.07	1.49	1.58	1.78	
ISOLEUCINE	5.44	4.48	5.45	6.27	
LEUCINE	12.09	9.99	11.62	12.73	
TYROSINE	5.62	6.07	6.75	6.36	
PHENYLALANINE	5.05	6.71	6.92	6.62	
ORNITHINE	13.26	7.96	11.02	12.99	
LYSINE	15.63	2.00	14.64	14.00	
HISTIDINE	10.51	9.13	10.65	11.54	
ARGININE	5.63	5.31	5.50	6.53	
TRYPTOPHAN	5.12	4.76	6.10	5.51	
HYDROXYPROLINE	1.38	1.00	1.19	0.80	

PLASMA AMINO ACID LEVELS (umoles/dl)

122

SUBJECT Frank DATE 3-9-77 TEST MATERIAL APM--K001 A.C.

WEIGHT 8.11 Kg DOSE ADM. 34 (actual = 26) mg/kg

AMINO ACID	0	30 min	60 min	120 min
TAURINE	6.65	6.53	5.57	4.93
ASPARTATE	1.88	2.35	1.69	1.22
THREONINE	9.63	11.03	8.74	7.63
SERINE	22.61	26.53	20.80	18.04
ASPARAGINE	2.10	2.65	7.06	2.41
GLUTAMINE	47.68	39.79	43.38	41.79
GLUTAMATE	8.98	7.53	8.90	8.62
PROLINE	14.76	16.60	14.04	12.56
CITRULLINE	1.27	1.18	1.20	1.33
GLYCINE	25.02	29.51	23.28	20.29
ALANINE	28.10	36.50	24.10	21.00
α -AMINOBUTYRATE	1.60	1.85	1.70	1.68
VALINE	18.65	18.26	17.89	17.65
γ -CYSTINE	7.77	6.92	7.29	6.75
METHIONINE	2.10	2.08	1.79	1.69
ISOLEUCINE	4.92	4.96	4.88	4.95
LEUCINE	10.05	10.16	9.85	9.74
TYROSINE	11.19	9.52	10.60	9.05
PHENYLALANINE	5.10	5.53	7.48	6.19
ORNITHINE	5.09	10.63	7.21	6.28
LYSINE	13.50	15.85	12.48	11.06
HISTIDINE	8.52	8.44	8.34	6.94
ARGININE	6.60	6.87	6.05	5.70
TRYPTOPHAN	6.13	6.08	6.01	6.12
HYDROXYPROLINE	1.50	2.10	1.49	1.35

PLASMA AMINO ACID LEVELS (umoles/dl)

123

SUBJECT Hyton DATE 3-15-77 TEST MATERIAL APV-Kool 301WEIGHT 9.35 kg DOSE ADM. 34 mg/kg

AMINO ACID	0	30 min	60 min	120 min	
TAURINE	3.10	2.66	5.23	5.36	
ASPARTATE	2.37	2.21	2.89	2.32	
THREONINE	10.50	9.15	9.77	7.20	
SERINE	20.43	16.70	21.61	17.55	
ASPARAGINE	2.59	2.29	2.85	2.96	
GLUTAMINE	45.72	42.63	47.40	46.80	
GLUTAMATE	7.32	7.05	9.34	9.55	
PROLINE	14.07	11.47	15.27	10.06	
CITRULLINE	2.19	1.98	2.03	2.48	
GLYCINE	22.60	18.54	21.62	17.75	
ALANINE	22.40	20.70	24.60	21.30	
α -AMINO BUTYRATE	3.29	3.09	2.54	2.12	
VALINE	26.46	23.55	25.31	19.96	
γ -CYSTINE	8.09	7.65	9.96	7.51	
METHIONINE	1.83	1.84	1.54	1.43	
ISOLEUCINE	7.12	6.42	5.89	5.81	
LEUCINE	14.22	12.51	11.56	11.14	
TYROSINE	6.46	7.76	5.10	6.69	
PHENYLALANINE	5.32	5.00	5.56	6.28	
ORNITHINE	7.78	5.35	7.59	6.04	
LYSINE	13.99	12.32	11.99	9.67	
HISTIDINE	7.97	7.53	7.77	5.53	
ARGININE	6.19	6.11	5.63	4.17	
TRYPTOPHAN	1.44	1.33	1.75	1.47	
HYDROXYPROLINE	1.51	1.34	1.93	0.11	

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PLASMA AMINO ACID LEVELS (umoles/dl)

SUBJECT RadzallDATE 3-15-77TEST MATERIAL APM-KC01WEIGHT 8.69 kgDOSE ADM. 34 mc/kg

AMINO ACID	0	45 min	90 min	150 min
TAURINE	6.92	4.22	5.15	4.27
ASPARTATE	0.78	2.36	3.21	4.91
THREONINE	18.83	8.51	10.34	10.60
SERINE	70.00	25.05	30.96	40.19
ASPARAGINE	5.54	9.83	7.50	1.22
GLUTAMINE	50.69	42.91	47.01	40.57
GLUTAMATE	11.11	10.31	9.17	8.41
PROLINE	8.89	19.77	16.17	11.77
CITRULLINE	2.73	1.93	2.28	1.52
GLYCINE	50.79	29.86	33.40	35.04
ALANINE	41.50	30.00	29.00	27.70
α -AMINO BUTYRATE	1.35	1.38	1.46	1.40
VALINE	20.75	15.49	18.32	17.03
L-CYSTEINE	5.42	6.45	6.96	5.78
METHIONINE	2.56	1.61	1.71	1.92
ISOLEUCINE	7.69	5.07	6.29	7.05
LEUCINE	12.37	8.77	10.24	11.23
TYROSINE	5.78	7.00	7.44	7.09
PHENYLALANINE	5.08	5.20	5.61	7.01
ORNITHINE	32.23	5.31	1.65	1.02
LYSINE	12.15	9.43	9.90	8.50
HISTIDINE	1.81	0.02	12.50	10.15
ARGININE	5.22	9.80	8.21	5.19
TRYPTOPHAN	5.20	2.97	5.20	2.62
HYDROXYPROLINE	2.10	2.22	2.35	1.02

PLASMA AMINO ACID LEVELS (umoles/dl)

125

SUBJECT BlairDATE 3-17-77TEST MATERIAL APM-400WEIGHT 7.73 KgDOSE ADM. 3+ mg/kg

AMINO ACID	0	45 min	90 min	150 min
TAURINE	7.57	6.62	5.54	5.19
ASPARTATE	4.47	2.25	1.28	0.99
THREONINE	11.79	9.73	6.79	5.60
SERINE	37.75	25.63	16.63	13.77
ASPARAGINE	5.65	5.17	4.57	3.91
GLUTAMINE	35.05	37.36	36.24	33.05
GLUTAMATE	6.41	7.20	6.61	6.58
PROLINE	11.14	11.04	9.78	8.86
CITRULLINE	2.53	2.58	2.02	1.55
GLYCINE	32.41	23.42	17.00	14.96
ALANINE	34.00	27.00	20.00	24.20
α -AMINO BUTYRATE	1.78	1.48	1.76	1.72
VALINE	20.59	17.98	17.33	15.81
L-CYSTEINE	7.54	7.86	8.01	7.20
METHIONINE	1.72	1.36	1.29	1.13
ISOLEUCINE	5.54	4.53	4.47	4.48
LEUCINE	10.42	7.73	9.02	8.12
TYROSINE	6.94	7.51	6.61	5.37
PHENYLALANINE	5.78	7.93	6.17	4.68
ORNITHINE	11.55	7.71	4.77	3.94
LYSINE	14.27	12.26	11.28	10.97
HISTIDINE	8.58	6.78	5.45	5.05
ARGININE	2.73	2.93	2.68	2.11
TRYPTOPHAN	7.09	5.95	5.19	
HYDROXYPROLINE	2.12	6.55	1.69	1.10

PLASMA AMINO ACID LEVELS (umoles/dl)

SUBJECT Rogers DATE 3-17-77 TEST MATERIAL APM-Kool A-5WEIGHT 10.51 Kg DOSE ADM. 34 mg/kg

AMINO ACID	0	30 min	60 min	120 min
TAURINE	356	352	369	399
ASPARTATE	539	398	261	232
THREONINE	1328	1067	841	825
SERINE	3831	2732	2071	1945
ASPARAGINE	448	476	445	448
GLUTAMINE	3960	4320	3830	4440
GLUTAMATE	927	1090	1164	1123
PROLINE	2006	1976	1675	1755
CITRULLINE	233	241	165	298
GLYCINE	3147	2478	2269	1933
ALANINE	2950	2450	1880	2220
α -AMINOBUTYRATE	209	253	218	252
VALINE	2706	2411	2551	2697
4-CYSTINE	581	663	641	701
METHIONINE	184	167	137	150
ISOLEUCINE	753	710	653	786
LEUCINE	1247	1419	1195	1321
TYROSINE	818	808	798	816
PHENYLALANINE	721	1235	945	845
ORNITHINE	1838	252	1250	1107
LYSINE	1272	1074	1011	1272
HISTIDINE	721	660	782	722
ARGININE	617	667	707	757
TRYPTOPHAN	557	530	525	375
HYDROXYPROLINE	301	368	35	107

PLASMA AMINO ACID LEVELS (umoles/dl)

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SUBJECT Bellev

DATE 5-11-77

TEST MATERIAL ADMA

WEIGHT

DOSE ADM. 34 mg/kg

AMINO ACID	0	30 min	60 min	120 min	
TAURINE	14.45	16.03	19.21	10.52	
ASPARTATE	1.80	2.20	2.83	1.32	
THREONINE	12.77	9.92	9.41	7.83	
SERINE	22.82	19.54	17.65	15.50	
ASPARAGINE	2.46	4.00	2.61	4.13	
GLUTAMINE	59.1	56.0	53.1	48.6	
GLUTAMATE	6.32	12.06	12.31	9.84	
PROLINE	11.15	11.62	9.55	9.02	
CITRULLINE	1.23	0.35	0.36	0.57	
GLYCINE	30.62	25.75	23.84	22.54	
ALANINE	35.52	30.23	28.45	27.76	
α -AMINOBUTYRATE	2.76	1.99	1.71	2.16	
VALINE	27.49	24.00	24.09	23.85	
γ -CYSTINE	4.28	4.04	4.37	3.42	
METHIONINE	2.64	2.78	2.27	1.52	
ISOLEUCINE	6.17	6.02	10.01	5.89	
LEUCINE	13.56	11.92	13.36	10.63	
TYROSINE	6.34	7.34	7.46	6.57	
PHENYLALANINE	6.24	9.89	9.00	7.31	
ORNITHINE	14.16	7.02	6.76	7.78	
LYSINE	21.20	14.59	13.73	14.30	
HISTIDINE	15.65	10.20	9.57	1.93	
ARGININE	2.88	2.14	2.56	2.24	
TRYPTOPHAN	5.42	5.77	3.15	3.19	
HYDROXYPROLINE	2.15	2.14	2.23	5.1	

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PLASMA AMINO ACID LEVELS (umoles/dl)

SUBJECT Salas DATE 5-11-77 TEST MATERIAL APM-1000WEIGHT 9.55 kg DOSE ADM. 34 mg/kg

AMINO ACID	0	45 min	90 min	150 min	
TAURINE	5.64	7.02	6.02	7.75	
ASPARTATE	1.24	0.98	0.72	0.99	
THREONINE	8.12	6.66	7.63	7.25	
SERINE	15.21	12.94	14.40	14.73	
ASPARAGINE	1.32	1.60	1.24	1.20	
GLUTAMINE	43.6	39.20	51.10	48.30	
GLUTAMATE	3.63	4.27	4.75	5.32	
PROLINE	6.12	5.23	5.20	5.37	
CITRULLINE	1.18	1.06	0.41	0.44	
GLYCINE	18.71	14.86	16.83	17.09	
ALANINE	29.30	22.80	22.90	27.50	
α -AMINOBUTYRATE	2.26	1.25	1.55	2.76	
VALINE	28.74	30.55	33.67	33.84	
γ -CYSTINE	4.66	5.48	5.81	5.95	
METHIONINE	0.55	0.56	0.92	1.10	
ISOLEUCINE	11.58	11.25	13.69	8.37	
LEUCINE	13.61	15.29	18.82	16.20	
TYROSINE	4.48	6.06	5.50	5.63	
PHENYLALANINE	4.61	7.72	6.80	6.71	
ORNITHINE	5.27	6.59	5.82	6.30	
LYSINE	9.49	11.18	12.61	12.06	
HISTIDINE	7.56	9.00	9.99	9.20	
ARGININE	3.53	5.04	5.68	6.07	
TRYPTOPHAN	2.04	4.75	6.26	3.00	
HYDROXYPROLINE	1.65	1.33	1.08	1.20	

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ERYTHROCYTE FREE AMINO ACID LEVELS μ moles/100 gm red cellsSUBJECT Heitland DATE 2-22-77 TEST MATERIAL APM-4000WEIGHT 8.94 Kg DOSE 34 mg/kg

AMINO ACID	0	30 min	60 min	90 min
TAURINE	13.04	13.97	13.02	6.24
ASPARTATE	2.76	7.81	6.62	7.55
THREONINE	8.86	7.91	5.88	6.90
SERINE	22.44	24.50	15.33	17.18
ASPARAGINE	4.54	5.10	3.16	3.55
GLUTAMINE	36.51	31.09	29.19	13.53
GLUTAMATE	19.50	16.68	15.08	20.88
PROLINE	16.52	12.02	10.86	15.11
GLYCINE	31.82	29.07	25.83	29.15
ALANINE	23.60	24.00	20.90	23.60
α -AMINO BUTYRATE	1.84	1.54	1	2.04
VALINE	22.45	16.78	16.43	22.37
METHIONINE	1.32	0.79	0.58	1.00
ISOLEUCINE	5.47	3.79	2.92	1.60
LEUCINE	11.02	8.50	6.81	5.70
TYROSINE	6.47	5.90	4.78	6.62
PHENYLALANINE	5.90	7.00	5.75	6.38
ORNITHINE	11.48	10.12	8.72	10.19
LYSINE	10.74	6.51	7.41	9.90
HISTIDINE	8.29	6.79	6.07	8.54
ARGININE	2.43	2.34	2.33	3.32

ERYTHROCYTE FREE AMINO ACID LEVELS (umoles/100 gr red cells)

SUBJECT Rogers DATE 2-22-77 TEST MATERIAL APM-1000WEIGHT 10.48 kg DOSE 34 mg/kg

AMINO ACID	0	45 min	90 min	150 min
TAURINE	3.00	12.81	2.40	10.05
ASPARTATE	19.93	16.12	21.43	11.79
THREONINE	10.07	6.91	6.59	2.95
SERINE	22.93	16.65	12.94	11.05
ASPARAGINE	9.54	7.33	5.51	3.66
GLUTAMINE	34.04	25.56	25.09	17.10
GLUTAMATE	18.37	17.82	16.56	14.65
PROLINE	21.52	16.28	15.55	7.14
GLYCINE	38.76	30.63	30.67	24.22
ALANINE	27.30	21.20	10.60	10.41
α -AMINOBUTYRATE	2.61	1.91	1.85	1.72
VALINE	29.41	20.45	21.70	12.10
METHIONINE	1.03	0.61	0.40	0.41
ISOLEUCINE	7.34	4.75	5.44	3.70
LEUCINE	16.17	11.56	12.75	8.62
TYROSINE	13.44	10.18	9.07	4.09
PHENYLALANINE	6.94	9.67	8.37	3.23
ORNITHINE	16.11	1.72	1.15	0.1
LYSINE	10.29	7.20	7.52	2.35
HISTIDINE	8.32	6.70	6.02	4.70
ARGININE	2.34	5.5	0.52	2.1

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ERYTHROCYTE FREE AMINO ACID LEVELS μ moles/100 gm red cellsSUBJECT Taylor DATE 3-3-77 TEST MATERIAL AMINO ACIDSWEIGHT 8.67 Kg DOSE 34 mg/kg

AMINO ACID	0	45 min	90 min	150 min
TAURINE	2005	852	527	711
ASPARTATE	3031	3009	3105	3000
THREONINE	657	542	537	497
SERINE	1717	1590	1664	1592
ASPARAGINE	469	631	446	487
GLUTAMINE	2336	2105	2318	2051
GLUTAMATE	2488	2268	2491	2183
PROLINE	1029	649	672	637
GLYCINE	2463	2324	2102	2165
ALANINE	1890	185	2010	1810
α -AMINOBUTYRATE	trace	trace	trace	trace
VALINE	1561	1420	1528	119
METHIONINE	074	070	054	051
ISOLEUCINE	402	110	363	345
LEUCINE	880	817	845	880
TYROSINE	502	518	570	551
PHENYLALANINE	493	533	631	100
ORNITHINE	587	600	563	55
LYSINE	560	537	515	567
HISTIDINE	664	590	712	120
ARGININE	60	13	10	120

ERYTHROCYTE FREE AMINO ACID LEVELS (moles 100 gm red cells)

SUBJECT Frank DATE 3-9-77 TEST MATERIAL APM-100WEIGHT 8.11 kg DOSE 34 (26 actual) mg/kg

AMINO ACID	0	30 min	60 min	120 min
TAURINE	73.20	59.2	58.2	74.0
ASPARTATE	12.42	7.8	6.94	1.2
THREONINE	9.29	6.69	6.42	5.97
SERINE	20.03	17.99	16.59	5.97
ASPARAGINE	6.47	7.91	7.57	7.34
GLUTAMINE	23.97	20.14	19.92	19.33
GLUTAMATE	31.93	39.29	23.58	23.87
PROLINE	14.19	13.60	9.03	10.25
GLYCINE	36.46	32.95	30.58	29.13
ALANINE	32.90	27.90	26.90	23.00
α -AMINOBUTYRATE	TRACE	TRACE	TRACE	0
VALINE	13.76	12.73	12.00	12.06
METHIONINE	1.52	1.25	1.19	0.92
ISOLEUCINE	3.83	3.06	2.98	2.00
LEUCINE	8.24	7.14	7.12	7.41
TYROSINE	10.38	7.95	11.45	3.99
PHENYLALANINE	4.00	5.85	7.77	6.62
ORNITHINE	0.5	2.60	0.30	1.0
LYSINE	1.02	1.2	1.24	0.02
HISTIDINE	1.60	0.01	0.02	0.01
ARGININE	3.11	0.15	0.02	0.0

DATE FREE AMINO ACID LEVELS (umoles/100 ml) 3-15-77

SUBJECT Davdon DATE 3-15-77 TEST MATERIAL 100%

WEIGHT 9.05 kg DOSE 34 mg/kg

AMINO ACID	0	30 min	50 min	120 min
TAURINE	50.70	51.30	10.77	28.05
ASPARTATE	34.09	35.51	33.16	25.83
THREONINE	9.97	8.00	8.29	5.96
SERINE	24.99	21.06	19.88	15.92
ASPARAGINE	2.74	11.16	6.66	8.04
GLUTAMINE	31.11	36.32	33.10	22.69
GLUTAMATE	35.12	33.72	25.62	25.22
PROLINE	9.58	14.74	9.18	9.11
GLYCINE	36.31	42.50	41.25	33.43
ALANINE	25.80	25.30	25.40	20.40
DL-AMINOBUTYRATE	8.4	1.61	1.89	1.50
VALINE	24.40	28.42	20.28	14.19
METHIONINE	2.09	1.54	1.20	0.95
ISOLEUCINE	15.43	0.60	8.67	7.2
LEUCINE	13.53	11.24	10.85	8.62
TYROSINE	7.44	9.20	9.55	6.63
PHENYLALANINE	7.00	7.21	8.43	5.57
BENETHIONE	60.25	60.05	7.40	1.20
LYSINE	10.30	10.40	9.00	4.2
HISTIDINE	2.5	2.0	7.52	3.40
ARGININE	3.0	3.0	2.53	2.0

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ERYTHROCYTE FREE AMINO ACID LEVELS (umoles/100 gm red cells)

SUBJECT Hadsett

DATE 3-15-77

TEST MATERIAL ASPM...

WEIGHT 8.595 kg

DOSE 34 mg/kg

AMINO ACID	0	45 min.	90 min	150 min
TAURINE	18.07	3.23	13.76	6.65
ASPARTATE	16.05	9.98	11.36	11.21
THREONINE	12.30	6.76	7.66	6.92
SERINE	32.00	18.59	21.58	21.42
ASPARAGINE	7.26	5.57	10.33	6.99
GLUTAMINE	27.06	29.89	30.86	27.15
GLUTAMATE	34.35	25.60	32.13	30.74
PROLINE	14.27	9.74	14.92	11.47
GLYCINE	57.65	41.44	47.65	46.52
ALANINE	30.70	21.40	26.10	24.10
α -AMINOBUTYRATE	1.27	0.80	1.46	1.31
VALINE	19.55	13.75	17.17	16.81
METHIONINE	1.86	1.06	2.22	1.00
ISOLEUCINE	9.63	6.29	9.82	5.04
LEUCINE	11.16	6.67	8.46	9.04
TYROSINE	9.74	7.20	7.50	7.96
PHENYLALANINE	8.19	9.02	7.93	7.60
ORNITHINE	17.35	6.15	0.73	0.30
LYSINE	3.69	3.74	5.76	5.12
HISTIDINE	10.75	4.15	7.10	7.22
ARGININE	3.25	2.21	3.53	2.00

ERYTHROCYTE FREE AMINO ACID LEVELS (umoles/100 gm red cells)

SUBJECT Rogers #2 DATE 3-17-77 TEST MATERIAL ADM-44-17-248WEIGHT 10.51 kg DOSE 34 mg/kg

AMINO ACID	0	30 min	60 min	120 min
TAURINE	4.76	4.18	4.47	4.33
ASPARTATE	19.05	17.18	19.05	17.76
THREONINE	8.66	6.51	5.77	4.74
SERINE	18.03	15.72	15.35	14.89
ASPARAGINE	7.11	7.33	5.41	3.98
GLUTAMINE	26.10	25.60	25.70	24.90
GLUTAMATE	19.50	19.57	20.12	19.32
PROLINE	12.87	12.87	15.03	6.72
GLYCINE	34.79	32.55	33.54	29.91
ALANINE	17.80	17.00	16.00	15.00
α -AMINO BUTYRATE	0.83	0.96	0.97	1.01
VALINE	17.82	15.51	18.05	16.45
METHIONINE	3.10	3.55	4.58	3.77
ISOLEUCINE	6.05	6.71	9.41	9.12
LEUCINE	10.03	9.18	7.50	7.48
TYROSINE	6.36	4.77	7.69	6.64
PHENYLALANINE	5.91	10.03	8.16	5.80
ORNITHINE	15.81	16.85	14.46	12.12
LYSINE	9.81	9.23	7.79	7.77
HISTIDINE	7.59	6.71	5.95	6.15
ARGININE	1.55	1.08	1.22	1.32

ERYTHROCYTE FREE AMINO ACID LEVELS (umoles/100 gm red cells)

SUBJECT Kelley DATE 5-11-77 TEST MATERIAL APM-XCC AND
 WEIGHT _____ DOSE 34 mg/kg body weight

AMINO ACID	0	30 min	60 min	120 min
TAURINE	27.10	4.75	3.01	2.82
ASPARTATE	10.97	13.63	11.48	11.21
THREONINE	7.51	7.63	5.74	5.09
SERINE	17.95	18.43	16.22	14.08
ASPARAGINE	5.63	8.68	6.48	7.06
GLUTAMINE	16.50	12.28	11.68	9.32
GLUTAMATE	28.58	28.70	26.98	26.12
PROLINE	8.42	4.43	1.92	5.19
GLYCINE	33.03	33.01	31.37	27.99
ALANINE	41.00	39.10	37.50	33.50
α -AMINO BUTYRATE	0	0	0	0
VALINE	16.20	15.80	14.80	13.90
METHIONINE	0.41	TRACE	TRACE	TRACE
ISOLEUCINE	7.08	6.02	7.61	6.82
LEUCINE	7.01	6.10	5.14	7.22
TYROSINE	3.38	4.72	4.74	3.73
PHENYLALANINE	3.36	5.51	4.01	3.56
ORNITHINE	10.32	13.56	11.24	10.33
LYSINE	7.55	9.60	8.48	5.79
HISTIDINE	7.10	7.62	7.65	5.70
ARGININE	0.67	0.55	0.58	0.39

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ERYTHROCYTE FREE AMINO ACID LEVELS umoles/100 gm red cells

SUBJECT Salas DATE 5-11-77 TEST MATERIAL APM-1110WEIGHT 9.55 kg DOSE 34 mg/kg

AMINO ACID	0	45 min	90 min	150 min
TAURINE	5.42	3.16	3.86	4.07
ASPARTATE	6.42	6.58	5.63	5.83
THREONINE	6.19	5.53	6.38	4.86
SERINE	13.49	14.76	19.32	13.36
ASPARAGINE	6.40	3.82	0.84	1.95
GLUTAMINE	22.31	22.38	19.74	18.09
GLUTAMATE	16.39	17.39	17.52	17.14
PROLINE	2.85	3.80	2.09	2.03
GLYCINE	27.06	28.62	69.57	26.35
ALANINE	24.60	24.90	23.70	22.10
α -AMINO BUTYRATE	0	0	0	0
VALINE	18.57	27.04	15.31	17.40
METHIONINE	1.98	2.76	2.68	0
ISOLEUCINE	3.87	5.53	4.82	4.93
LEUCINE	3.47	3.85	10.84	5.41
TYROSINE	1.76	3.92	4.17	2.56
PHENYLALANINE	1.30	4.22	4.93	1.85
ORNITHINE	9.58	8.02	16.97	7.52
LYSINE	6.87	5.39	13.82	6.25
HISTIDINE	6.54	5.13	13.12	5.54
ARGININE	1.40	1.13	1.70	0.8

BLOOD METHANOL VALUES

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME Heitland
DATE 2-22-77
ASPARTAME DOSE 34 mg/kg

TIME (min.)	METHANOL (mg%)
0	0.05
30	0.18
45	—
60	0.14
90	—
120	0.08
150	—

14C

BLOOD METHANOL VALUES

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME

Rogers

DATE

2-22-77

ASPARTAME DOSE

34 mg/kg

TIME (min.)

METHANOL (mg%)

0

0.07

30

—

45

0.00

60

—

90

0.08

120

—

150

0.00

141

BLOOD METHANOL VALUES

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME Taylor
 DATE 3-9-77
 ASPARTAME DOSE 34 mg/kg

TIME (min.)	METHANOL (mg%)
0	0.0
30	-
45	0.0
60	-
90	0.0
120	-
150	0.07

BLOOD METHANOL VALUES

142

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME TRANIK
DATE 3-9-77
ASPARTAME DOSE 34 mg/kg

TIME (min.)	METHANOL (mg%)
0	0.10
30	0.12
45	—
60	0.04
90	—
120	0.09
150	—

143

BLOOD METHANOL VALUES

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME

Dayton

DATE

3-15-77

ASPARTAME DOSE

34 mg/kg

TIME (min.)

METHANOL (mg%)

0

0.0

30

0.0

45

—

60

0.0

90

—

120

0.04

150

—

111

BLOOD METHANOL VALUES

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME

Hadsall

DATE

3-15-77

ASPARTAME DOSE

34 mg/kg
J J

TIME (min.)

METHANOL (mg%)

0

0.0

30

-

45

0.77

60

-

90

0.22

120

-

150

0.0

BLOOD METHANOL VALUES

145

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME BlairDATE 3-17-77ASPARTAME DOSE 34 mg/kg

TIME (min.)	METHANOL (mg%)
0	0.06
30	—
45	0.0
60	—
90	0.13
120	—
150	0.03

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BLOOD METHANOL VALUES

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME Rogers
DATE 3-17-77
ASPARTAME DOSE 34 mg/kg

<u>t (min.)</u>	<u>METHANOL (mg%)</u>
0	<u>0.27</u>
30	<u>0.06</u>
45	<u>—</u>
60	<u>0.12</u>
90	<u>—</u>
120	<u>0.05</u>
150	<u>—</u>

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BLOOD METHANOL VALUES

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME

Keller

DATE

5-10-77

ASPARTAME DOSE

34 mg/kg

J

TIME (min.)

METHANOL (mg%)

0

0.0

30

0.05

45

—

60

0.0

90

—

120

0.03

150

—

BLOOD METHANOL VALUES

118

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME

Sales

DATE

5-11-77

ASPARTAME DOSE

34 mg/kg

TIME (min.)

METHANOL (mg%)

0

0.13

30

—

45

0.17

60

—

90

0.10

120

—

150

0.60

PLASMA AMINO ACID LEVELS (umoles/dl)

SUBJECT Kober DATE 2-23-77 TEST MATERIAL APM--K001WEIGHT 9.55 Kg DOSE ADM. 50 mg/kg

AMINO ACID	0	30 min	60 min	120 min
TAURINE	7.12	5.55	6.16	9.35
ASPARTATE	2.51	3.09	3.54	2.69
THREONINE	10.84	10.15	10.28	11.30
SERINE	20.27	21.34	23.09	21.39
ASPARAGINE	2.88	2.01	2.34	2.19
GLUTAMINE	50.41	48.05	45.02	51.21
GLUTAMATE	8.92	10.33	9.46	11.52
PROLINE	23.85	20.12	19.39	19.19
CITRULLINE	2.34	1.58	1.30	2.96
GLYCINE	21.56	20.09	20.91	21.72
ALANINE	26.1	24.4	26.3	26.4
α -AMINO BUTYRATE	2.38	2.55	2.33	2.73
VALINE	24.27	22.99	23.30	21.77
L-CYSTINE	6.86	8.31	6.29	7.48
METHIONINE	1.94	1.60	1.63	1.76
ISOLEUCINE	4.13	5.28	5.21	6.07
LEUCINE	12.96	12.99	12.81	14.58
TYROSINE	8.36	10.91	11.22	10.66
PHENYLALANINE	1.01	1.17	1.74	1.47
ORNITHINE	9.44	9.09	10.82	7.16
LYSINE	16.36	15.00	15.09	16.4
HISTIDINE	5.94	8.84	5.98	7.66
ARGININE	7.60	7.5	6.64	7.31
TRYPTOPHAN	5.06	5.85	7.75	5.1
HYDROXYPROLINE	50		15	

150

PLASMA AMINO ACID LEVELS (umols/dl)

SUBJECT Sales DATE 2-23-77 TEST MATERIAL APM--Kool A+BWEIGHT 8.85 Kg DOSE ADM. 50 mg/kg

AMINO ACID	0	45 min	90 min	150 min	
TAURINE	7.65	7.62	15.4	9.17	
ASPARTATE	1.33	1.68	3.69	1.75	
THREONINE	10.66	10.77	10.9	9.35	
SERINE	16.95	19.40	22.8	15.86	
ASPARAGINE	2.21	2.42	2.98	2.73	
GLUTAMINE	42.97	44.87	43.98	42.01	
GLUTAMATE	6.81	7.66	11.2	8.55	
PROLINE	10.42	11.07	13.5	13.51	
CITRULLINE	3.07	2.66	2.41	2.59	
GLYCINE	23.23	22.75	25.7	20.86	
ALANINE	23.1	24.9	23.8	23.1	
α -AMINOBUTYRATE	3.91	4.29	4.23	4.03	
VALINE	32.25	30.72	31.0	27.11	
L-CYSTEINE	7.41	7.99	5.10	3.97	
METHIONINE	1.77	1.71	2.20	1.67	
ISOLEUCINE	7.10	7.29	7.50	7.64	
LEUCINE	17.09	16.82	11.3	14.16	
TYROSINE	5.71	8.18	7.57	7.94	
PHENYLALANINE	5.71	11.44	9.24	9.59	
ORNITHINE	7.59	7.91	9.59	7.54	
LYSINE	15.49	14.91	15.1	14.27	
HISTIDINE	9.33	5.42	5.77	9.72	
ARGININE	5.12	5.33	5.69	5.41	
TRYPHTOPHAN	7.45	7.1	7.34	7.5	
γ -HYDROXYPROLINE	5.5	7	5	5	

PLASMA AMINO ACID LEVELS (umoles/dl)

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SUBJECT Klonr DATE 3-8-77 TEST MATERIAL APM--Kool AidWEIGHT 9.01 DOSE ADM. 50 mg/kg

AMINO ACID	0	30 min	60 min	120 min	
TAURINE	4.72	6.56	6.87	6.43	
ASPARTATE	5.77	3.12	2.66	1.04	
THREONINE	15.32	12.32	10.74	8.56	
SERINE	34.18	24.97	19.91	15.73	
ASPARAGINE	6.20	4.79	4.27	4.82	
GLUTAMINE	47.99	42.82	41.96	42.62	
GLUTAMATE	9.62	8.36	9.17	6.29	
PROLINE	19.82	16.17	14.74	11.43	
CITRULLINE	19.3	1.48	2.62	2.32	
GLYCINE	30.62	20.69	17.19	13.93	
ALANINE	35.3	27.6	23.7	23.4	
α -AMINO BUTYRATE	1.75	1.27	1.47	2.31	
VALINE	22.90	17.79	17.45	21.74	
L-CYSTINE	2.77	8.45	4.69	6.78	
METHIONINE	2.45	1.89	1.59	1.62	
ISOLEUCINE	6.29	4.69	4.68	5.59	
LEUCINE	10.51	8.83	9.06	11.53	
TYROSINE	8.46	11.23	10.18	8.29	
PHENYLALANINE	6.10	12.05	9.80	8.46	
ORNITHINE	12.77	8.12	6.65	4.75	
LYSINE	14.77	11.05	10.22	13.90	
HISTIDINE	4.24	6.03	6.74	6.59	
ARGININE	1.63	1.17	1.22	1.5	
TRYPTOPHAN	2.5	1.45	1.45	1.75	
γ -AMINO BUTYRATE	1.5	1.95	1.45	1.75	

PLASMA AMINO ACID LEVELS (umoles/dl)

SUBJECT Sheldon DATE 3-8-77 TEST MATERIAL APM--Kool Aid
 WEIGHT 9.65 Kg DOSE ADM. 50 mg/kg

AMINO ACID	0	45 min	90 min	150 min	
TAURINE	6.73	5.34	6.11	6.33	
ASPARTATE	3.41	2.66	1.26	3.44	
THREONINE	13.38	10.57	8.75	12.16	
SERINE	31.74	22.81	15.52	27.87	
ASPARAGINE	5.46	3.98	3.60	4.45	
GLUTAMINE	48.77	44.23	34.65	48.80	
GLUTAMATE	7.68	5.90	5.81	10.28	
PROLINE	16.21	13.28	12.43	17.73	
CITRULLINE	3.51	2.04	2.40	2.71	
GLYCINE	34.85	25.17	20.57	25.13	
ALANINE	30.2	26.1	24.2	28.7	
α -AMINO BUTYRATE	2.59	2.49	2.37	2.61	
VALINE	28.62	24.64	21.68	22.22	
L-CYSTINE	5.47	7.17	6.95	9.30	
METHIONINE	2.12	1.95	1.72	2.01	
ISOLEUCINE	6.89	6.32	5.22	6.60	
LEUCINE	14.00	12.40	9.26	11.09	
TYROSINE	7.14	8.82	8.27	11.06	
PHENYLALANINE	6.10	10.33	9.65	9.04	
ORNITHINE	11.37	7.58	5.11	6.14	
LYSINE	12.95	14.38	12.85	10.45	
HISTIDINE	7.66	8.07	6.65	7.21	
ARGININE	7.25	6.92	6.74	7.75	
TRYPHTOPHAN	7.36	6.77	6.20	7.3	
HYDROXYPROLINE	7.3	7.5	6.7	7.7	

PLASMA AMINO ACID LEVELS (umoles/dl)

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SUBJECT Hickman DATE 3-16-77 TEST MATERIAL APM-1000-1WEIGHT 6.9 Kg DOSE ADM. 50 mg/kg

AMINO ACID	0	30 min	60 min	120 min
TAURINE	5.69	5.24	16.44	5.67
ASPARTATE	2.58	1.94	3.31	1.99
THREONINE	11.27	9.64	8.53	7.39
SERINE	30.59	25.79	23.52	15.49
ASPARAGINE	1.59	1.52	1.36	1.54
GLUTAMINE	41.86	36.66	32.86	38.2
GLUTAMATE	7.40	7.71	9.83	6.94
PROLINE	14.76	12.63	14.45	5.76
CITRULLINE	2.67	1.41	1.24	1.00
GLYCINE	38.53	30.22	27.21	19.76
ALANINE	31.7	27.1	25.0	17.3
α -AMINOBUTYRATE	2.28	1.96	1.72	0.99
VALINE	16.57	14.66	13.47	14.13
L-CYSTEINE	9.90	9.37	7.75	7.37
METHIONINE	2.40	1.95	1.93	1.10
ISOLEUCINE	5.05	4.23	3.92	4.04
LEUCINE	10.12	7.80	7.24	6.52
TYROSINE	6.31	7.49	8.40	7.08
PHENYLALANINE	5.34	8.00	9.31	6.84
ORNITHINE	13.23	10.50	9.92	7.51
LYSINE	15.00	11.40	10.10	8.10
HISTIDINE	10.00	7.50	7.70	7.50
ARGININE	9.25	7.50	7.70	7.50
TRYPTOPHAN	0.50	0.50	0.50	0.50
HYDROXYPROLINE	0.50	0.50	0.50	0.50

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PLASMA AMINO ACID LEVELS (umoles/l)

SUBJECT TREMELDATE 3-15-77TEST MATERIAL APM-11-77WEIGHT 3.45 kgDOSE ADM. 50 mg/kg

AMINO ACID	0	45 min	90 min	150 min
TAURINE	5.55	5.90	6.41	4.53
ASPARTATE	2.52	5.11	3.52	1.83
THREONINE	11.07	13.40	1.14	7.60
SERINE	24.69	45.74	29.87	24.87
ASPARAGINE	5.64	6.29	6.51	4.92
GLUTAMINE	30.89	27.27	30.40	28.71
GLUTAMATE	4.56	6.23	7.89	7.57
PROLINE	9.46	12.57	13.41	14.74
CITRULLINE	1.73	2.02	2.31	1.11
GLYCINE	24.36	37.00	30.44	26.92
ALANINE	26.8	36.9	26.8	24.9
α -AMINO BUTYRATE	1.50	1.12	1.28	1.05
VALINE	15.96	17.02	18.23	16.73
γ -CYSTINE	7.40	5.00	4.93	6.30
METHIONINE	1.41	1.64	1.71	1.56
ISOLEUCINE	3.53	3.94	4.96	4.05
LEUCINE	6.34	7.83	9.43	6.56
TYROSINE	5.15	6.05	6.15	8.15
PHENYLALANINE	4.77	10.12	6.33	7.05
ORNITHINE	9.60	10.73	12.40	15.52
LYSINE	1.49	1.20	1.20	1.50
HISTIDINE	1.10	1.10	1.10	1.10
ARGININE	1.10	1.10	1.10	1.10
TRYPTOPHAN	1.10	1.10	1.10	1.10
γ -HYDROXYPROLINE	1.10	1.10	1.10	1.10

ERYTHROCYTE FREE AMINO ACID LEVELS μ moles/100 gm red cellsSUBJECT Kober DATE 3-23-77 TEST MATERIAL APM-1110WEIGHT 9.55 kg DOSE 50 mg/kg

AMINO ACID	0	30 min	60 min	120 min
TAURINE	7189	509	395	3726
ASPARTATE	1691	1210	1614	1316
THREONINE	793	586	705	549
SERINE	1616	1277	1654	1258
ASPARAGINE	450	129	331	496
GLUTAMINE	3201	3451	3535	2733
GLUTAMATE	2250	1753	1620	2057
PROLINE	855	1262	832	1440
GLYCINE	2897	2183	2718	2472
ALANINE	2530	1790	2660	2520
α -AMINO BUTYRATE	203	113	147	049
VALINE	1755	1266	1660	2035
METHIONINE	125	073	078	029
ISOLEUCINE	194	251	254	165
LEUCINE	852	605	743	637
TYROSINE	966	961	1064	742
PHENYLALANINE	445	1019	1340	104
ORNITHINE	145	030	077	032
LYSINE	1152	009	050	030
HISTIDINE	700	582	605	587
ARGININE	205	268	267	211

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ERYTHROCYTE FREE AMINO ACID LEVELS (umoles/100 gm red cells)

SUBJECT Sales DATE 2-23-77 TEST MATERIAL ADU-1111WEIGHT 9.85 kg DOSE 50 mg/kg

AMINO ACID	0	45 min	90 min	150 min
TAURINE	101.00	55.30	9.13	13.50
ASPARTATE	9.30	8.31	8.66	6.0
THREONINE	8.78	6.55	7.94	5.10
SERINE	15.12	12.78	15.66	13.94
ASPARAGINE	4.73	5.21	10.10	7.19
GLUTAMINE	29.74	31.95	30.03	30.44
GLUTAMATE	16.74	18.77	26.39	22.58
PROLINE	11.44	6.14	9.61	11.65
GLYCINE	33.97	27.90	32.73	29.92
ALANINE	28.40	23.10	34.30	20.9
α -AMINOBUTYRATE	2.09	2.11	2.63	2.04
VALINE	22.08	14.77	18.24	15.15
METHIONINE	1.41	0.65	0.96	0.49
ISOLEUCINE	4.31	3.64	4.90	4.39
LEUCINE	12.70	9.97	11.94	9.31
TYROSINE	5.31	7.26	6.32	5.60
PHENYLALANINE	4.52	8.48	6.92	6.32
ORNITHINE	12.81	11.58	9.62	7.44
LYSINE	13.06	8.18	10.10	8.90
HISTIDINE	10.47	6.02	7.20	5.0
ARGININE	3.82	0.63	1.19	0.7

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ERYTHROCYTE FREE AMINO ACID LEVELS (umoles/100 gm red cells)

SUBJECT Klohr DATE 3-3-77 TEST MATERIAL ADU-11101-203WEIGHT 9.01 kg DOSE 50 mg/kg

AMINO ACID	0	30 min	60 min	120 min
TAURINE	5.42	3.92	5.39	3.36
ASPARTATE	24.46	26.36	30.53	20.90
THREONINE	8.72	5.88	6.93	5.01
SERINE	16.97	12.69	14.23	11.17
ASPARAGINE	4.43	4.46	2.95	6.03
GLUTAMINE	3.09	26.06	26.63	27.07
GLUTAMATE	17.17	16.48	21.67	19.97
PROLINE	13.82	11.61	9.58	5.14
GLYCINE	25.39	20.90	24.02	31.92
ALANINE	24.40	19.50	20.90	17.60
α -AMINO BUTYRATE	0	TRACE	TRACE	TRACE
VALINE	13.01	9.83	10.94	10.79
METHIONINE	1.30	0.53	0.74	0.55
ISOLEUCINE	2.13	2.09	3.09	2.47
LEUCINE	6.84	5.46	6.15	6.34
TYROSINE	6.39	9.26	9.58	6.38
PHENYLALANINE	4.32	7.00	6.44	5.63
ORNITHINE	9.35	7.35	8.33	8.08
LYSINE	8.94	6.05	7.28	7.70
HISTIDINE	6.26	5.08	2.97	5.27
ARGININE	4.19	2.41	2.22	1.04

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ERYTHROCYTE FREE AMINO ACID LEVELS (umoles 100 gm red cells)

SUBJECT SheldonDATE 3-8-77TEST MATERIAL SPM-4000WEIGHT 9.65 kgDOSE 50 mg/kg

AMINO ACID	0	45 min	90 min	150 min
TAURINE	1.99	2.49	4.09	1.57
ASPARTATE	19.92	20.20	18.19	20.01
THREONINE	7.51	6.60	5.23	6.01
SERINE	16.11	12.56	11.95	14.22
ASPARAGINE	10.11	6.44	7.19	6.91
GLUTAMINE	21.29	23.57	20.89	19.53
GLUTAMATE	22.09	19.93	20.65	21.36
PROLINE	7.31	5.30	6.93	10.60
GLYCINE	42.42	35.76	34.16	24.93
ALANINE	19.50	18.00	16.80	9.60
α -AMINO BUTYRATE	TRACE	TRACE	TRACE	TRACE
VALINE	15.55	12.74	11.24	11.59
METHIONINE	1.18	0.95	0.55	0.57
ISOLEUCINE	3.62	3.19	2.15	3.19
LEUCINE	9.20	7.01	5.91	7.22
TYROSINE	5.83	6.34	6.36	8.46
PHENYLALANINE	4.29	6.63	6.41	6.09
ORNITHINE	9.43	8.55	8.30	9.41
LYSINE	10.25	9.05	8.80	12.25
HISTIDINE	5.84	4.05	5.13	5.00
ARGININE	2.95	2.29	2.21	2.57

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BENTHROCKITE FREE AMINO ACID LEVELS (umoles 100 cm red cells)

SUBJECT Hickman DATE 3-15-77 TEST MATERIAL APM-1000-100WEIGHT 5.6 kg DOSE 50 mg/kg

AMINO ACID	0	30 min	60 min	120 min
TAURINE	6.94	5.72	5.81	10.75
ASPARTATE	6.02	5.30	6.90	15.40
THREONINE	6.42	5.26	5.76	5.45
SERINE	19.77	17.63	19.71	15.77
ASPARAGINE	4.30	3.40	3.81	5.49
GLUTAMINE	27.56	25.18	27.28	22.01
GLUTAMATE	23.51	22.05	23.42	17.07
PROLINE	14.26	8.61	15.09	8.63
GLYCINE	41.13	37.09	42.29	32.53
ALANINE	28.80	25.20	34.20	23.30
α -AMINO BUTYRATE	trace	trace	trace	trace
VALINE	7.74	10.24	11.29	11.58
METHIONINE	3.09	1.86	1.36	0.75
ISOLEUCINE	11.92	6.34	7.41	5.40
LEUCINE	5.09	4.53	4.95	5.13
TYROSINE	4.48	6.03	7.45	6.50
PHENYLALANINE	4.54	5.48	7.21	4.40
ORNITHINE	21.69	11.92	25.24	9.26
LYSINE	11.09	5.71	12.46	6.89
HISTIDINE	9.59	4.75	10.70	6.00
ARGININE	3.95	2.23	3.67	2.90

ERYTHROCYTE FREE AMINO ACID LEVELS (umoles/100 **160** cells)

SUBJECT Trennel DATE 3-16-77 TEST MATERIAL APM-K007 213

WEIGHT 9.45 kg DOSE 50 mg/kg

AMINO ACID	0	45 min	90 min	150 min
TAURINE	290	676	1600	6004
ASPARTATE	1758	1773	2131	826
THREONINE	703	794	755	448
SERINE	1498	2003	1738	1901
ASPARAGINE	706	760	953	924
GLUTAMINE	1581	2090	2070	1650
GLUTAMATE	1681	1895	2600	3146
PROLINE	1063	849	998	1253
GLYCINE	3392	3652	3956	3881
ALANINE	1710	2210	2240	1950
α -AMINOBUTYRATE	121	093	091	086
VALINE	1394	1441	1121	1019
METHIONINE	092	106	087	087
ISOLEUCINE	637	611	628	676
LEUCINE	460	590	584	414
TYROSINE	553	883	779	815
PHENYLALANINE	380	935	661	639
ORNITHINE	627	1081	902	1485
LYSINE	612	958	852	753
HISTIDINE	433	754	669	692
ARGININE	71	234	161	250

BLOOD METHANOL VALUES

161

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME

Kober

DATE

2-23-77

ASPARTAME DOSE

50 mg/kg

TIME (min.)

METHANOL (mg%)

0

0.10

30

0.43

45

—

60

0.33

90

—

120

0.0

150

—

162

BLOOD METHANOL VALUES

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME SALES
DATE 2-23-77
ASPARTAME DOSE 50 mg/kg

TIME (min.)	METHANOL (mg%)
0	0.15
30	—
45	0.49
50	—
90	0.18
120	—
150	0.0

BLOOD METHANOL VALUES

163

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME KLOHRDATE 3-8-77ASPARTAME DOSE 50 mg/kg

TIME (min.)	METHANOL (mg%)
0	0.0
30	0.25
45	—
60	0.0
90	—
120	0.0
150	—

164

BLOOD METHANOL VALUES

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME SHELDONDATE 3/8/77ASPARTAME DOSE 50 mg/kg

TIME (min.)	METHANOL (mg%)
0	0.08
30	-
45	0.11
60	-
90	0.60
120	-
150	0.08

165

BLOOD METHANOL VALUES

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME HICKMAN
DATE 3/16/77
ASPARTAME DOSE 50 mg/kg

TIME (min.)	METHANOL (mg%)
0	0.04
30	0.00
45	-
60	0.04
90	-
120	0.00
150	-

166

BLOOD METHANOL VALUES

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME

TREMME L

DATE

3/16/77

ASPARTAME DOSE

50 mg/kg

TIME (min.)

METHANOL (mg%)

0

0.04

30

-

45

0.30

60

-

90

0.15

120

-

150

0.05

PLASMA AMINO ACID LEVELS (umoles/dl)

SUBJECT SPILLER DATE 2/15/70 TEST MATERIAL 5WEIGHT 41.24 DOSE ADM. 100 mg/kg

AMINO ACID	0	30 min	60 min	120 min
TAURINE	7.25	7.34	1.30	5.74
ASPARTATE	2.34	2.02	1.05	1.09
THREONINE	7.73	5.87	7.84	5.19
SERINE	14.86	21.16	16.66	12.00
ASPARAGINE	2.81	4.03	3.97	2.90
GLUTAMINE	38.9	39.10	42.08	31.0
GLUTAMATE	7.02	8.98	7.55	5.98
PROLINE	13.10	12.99	12.02	8.41
CITRULLINE	2.03	2.07	1.14	1.23
GLYCINE	17.10	20.38	17.38	12.41
ALANINE	36.0	48.4	44.6	26.6
α -AMINO BUTYRATE	2.18	1.77	2.08	2.24
VALINE	23.38	15.86	15.78	9.86
L-CYSTINE	5.34	6.80	7.35	5.22
METHIONINE	1.14	1.39	1.20	1.15
ISOLEUCINE	11.57	8.13	8.13	6.09
LEUCINE	14.55	9.62	7.59	5.69
TYROSINE	5.90	12.54	13.54	5.55
PHENYLALANINE	6.49	15.53	12.82	4.94
ORNITHINE	7.34	7.44	5.65	4.52
LYSINE	5.27	12.60	11.54	6.71
HISTIDINE	1.20	0.80	2.11	0.72
ARGININE	2.11	5.01	6.71	5.01
TRYPTOPHAN	1.11	1.22	1.11	1.11
HYDROXYPROLINE	1.11	1.11	1.11	1.11

PLASMA AMINO ACID LEVELS (umoles/dl)

SUBJECT FRANKS DATE 11-2-58 TEST MATERIAL FRANKS
 WEIGHT 11 kg DOSE ADM. 100 mg/kg

AMINO ACID	0	45 min	90 min	150 min
TAURINE	9.75	6.43	5.51	3.43
ASPARTATE	1.44	1.63	0.71	0.65
THREONINE	10.01	6.13	5.17	4.14
SERINE	23.57	14.51	9.35	8.35
ASPARAGINE	0.96	0.50	0.50	1.61
GLUTAMINE	41.40	55.4	57.5	44.6
GLUTAMATE	7.58	7.11	7.96	5.49
PROLINE	11.50	4.65	4.54	7.35
CITRULLINE	3.17	1.52	1.50	1.98
GLYCINE	27.89	14.91	11.33	10.15
ALANINE	46.6	32.5	26.6	24.4
α -AMINO BUTYRATE	4.14	2.73	3.47	2.49
VALINE	19.20	23.79	27.27	23.77
L-CYSTINE	5.41	4.49	5.51	5.13
METHIONINE	2.21	1.33	1.17	0.90
ISOLEUCINE	6.82	8.80	7.23	8.05
LEUCINE	10.06	10.27	13.32	14.60
TYROSINE	1.22	0.50	0.34	0.39
PHENYLALANINE	2.63	0.20	0.02	7.55
ORNITHINE	0.72	0.03	0.03	2.63
LYSINE	0.07	0.02	0.02	0.02
HISTIDINE	0.01	0.01	0.01	0.01
ARGININE	0.01	0.01	0.01	0.01
TRYPTOPHAN	0.01	0.01	0.01	0.01
γ -HYDROXYPROLINE	0.01	0.01	0.01	0.01

PLASMA AMINO ACID LEVELS (umoles/dl)

SUBJECT 12X-10 DATE 11/11/71 TEST MATERIAL ...
 WEIGHT 7.76 kg DOSE ADM. ...

AMINO ACID	0	45 min	90 min	150 min	
TAURINE	7.35	7.54	6.22	6.51	
ASPARTATE	0.63	0.69	0.45	0.36	
THREONINE	6.65	4.55	3.30	3.13	
SERINE	13.83	9.71	6.87	7.51	
ASPARAGINE	1.74	0.80	0.52	0.71	
GLUTAMINE	44.7	39.7	35.0	33.4	
GLUTAMATE	3.97	4.27	2.91	2.12	
PROLINE	7.19	5.86	4.11	4.23	
CITRULLINE	1.70	0.89	0.47	1.65	
GLYCINE	17.06	11.49	8.59	8.51	
ALANINE	26.7	22.8	17.1	16.7	
α -AMINO BUTYRATE	2.22	2.21	1.99	1.80	
VALINE	21.35	19.71	17.32	19.24	
γ -CYSTINE	6.45	5.42	6.13	5.71	
METHIONINE	1.94	0.88	0.61	0.53	
ISOLEUCINE	7.30	6.64	6.11	6.79	
LEUCINE	12.17	11.12	10.73	10.93	
TYROSINE	5.30	10.44	12.43	11.17	
PHENYLALANINE	4.72	14.20	10.51	11.13	
ORNITHINE	6.31	3.01	2.51	2.31	
LYSINE	10.16	7.11	7.25	5.11	
HISTIDINE	1.11	0.41	0.16	0.15	
ARGININE	4.12	3.80	3.51	2.15	
TRYPTOPHAN	1.11	0.55	0.11	0.11	
HYDROXYPROLINE	0.11	0.11	0.11	0.11	

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PLASMA AMINO ACID LEVELS (umoles/dl)

SUBJECT SL. BURK DATE 11/3/71 TEST MATERIAL ...WEIGHT 9.77 kg DOSE ADM. 100 mg/kg

AMINO ACID	0	30 min	60 min	120 min
TAURINE	6.41	8.23	6.10	6.33
ASPARTATE	1.41	3.57	1.27	1.45
THREONINE	12.98	13.51	9.45	8.46
SERINE	14.37	23.05	13.05	14.00
ASPARAGINE	2.34	2.78	2.18	1.19
GLUTAMINE	48.1	49.0	44.2	42.5
GLUTAMATE	5.90	9.70	6.91	6.59
PROLINE	16.06	14.70	11.33	11.38
CITRULLINE	1.81	1.47	0.81	1.32
GLYCINE	16.32	18.73	11.61	12.62
ALANINE	33.5	39.9	29.4	27.2
α -AMINO BUTYRATE	2.49	2.64	2.59	2.19
VALINE	21.32	23.94	19.05	20.45
γ -CYSTINE	7.64	7.69	8.14	6.86
METHIONINE	1.61	1.75	1.22	1.29
ISOLEUCINE	6.21	6.83	6.19	7.44
LEUCINE	9.88	11.02	9.13	11.51
TYROSINE	6.82	12.63	11.26	12.52
PHENYLALANINE	4.30	20.12	13.91	10.11
ORNITHINE	5.61	8.21	5.95	5.70
LYSINE	11.72	9.67	9.10	7.01
HISTIDINE
ARGININE	5.90	5.47	5.75	4.90
TRYPHTOPHAN
HYDROXYPROLINE

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PLASMA AMINO ACID LEVELS (umoles/dl)

SUBJECT BIRCH DATE 4/25/77 TEST MATERIAL 100WEIGHT 9.15 kg DOSE ADM. 100 mg/kg

AMINO ACID	0	30 min	50 min	120 min
TAURINE	5.54	5.22	7.45	7.74
ASPARTATE	6.88	6.66	6.99	1.04
THREONINE	6.34	7.01	7.93	6.98
SERINE	11.05	12.85	15.72	15.02
ASPARAGINE	4.02	3.22	3.65	2.32
GLUTAMINE	65.6	55.4	10.4	51.6
GLUTAMATE	4.60	4.91	6.45	5.36
PROLINE	10.17	9.98	10.28	10.37
CITRULLINE	1.70	1.00	1.51	1.86
GLYCINE	21.77	17.65	19.19	171.9
ALANINE	35.7	35.8	38.3	35.2
α -AMINO BUTYRATE	2.66	1.96	2.54	2.41
VALINE	13.40	12.54	14.20	14.10
L-CYSTINE	7.60	7.69	8.38	8.00
METHIONINE	1.51	1.37	1.55	1.36
ISOLEUCINE	4.49	4.38	5.00	4.90
LEUCINE	6.98	1.22	7.11	7.44
TYROSINE	4.96	4.78	10.74	10.00
PHENYLALANINE	5.65	4.12	10.24	9.00
ORNITHINE	6.77	4.00	4.51	5.72
LYSINE	2.55	2.00	2.90	2.00
HISTIDINE	2.64	1.50	1.20	1.50
ARGININE	1.21	1.20	1.20	1.20
TRYPHOPHAN	1.20	1.20	1.20	1.20
HYDROXYPROLINE	1.20	1.20	1.20	1.20

PLASMA AMINO ACID LEVELS (umoles/dl)

SUBJECT 70534 DATE 4-20-68 TEST MATERIAL 100-1WEIGHT 18.24 kg DOSE ADM. 100 mg/kg

AMINO ACID	0	45 min	90 min	150 min
TAURINE	5.39	5.32	4.72	3.29
ASPARTATE	1.70	1.58	0.91	1.13
THREONINE	8.86	7.91	6.31	7.12
SERINE	15.26	15.49	12.56	14.43
ASPARAGINE	2.5	4.58	4.60	5.94
GLUTAMINE	55.0	52.1	40.9	36.7
GLUTAMATE	4.44	6.20	6.01	7.08
PROLINE	17.66	15.28	15.67	15.35
CITRULLINE	1.62	1.42	1.41	1.10
GLYCINE	15.90	14.54	11.65	13.45
ALANINE	36.3	43.8	35.7	37.8
α -AMINO BUTYRATE	3.77	3.58	3.33	3.56
VALINE	24.36	22.88	21.29	22.24
γ -CYSTINE	6.10	6.08	6.32	6.54
METHIONINE	1.42	1.08	1.17	1.14
ISOLEUCINE	6.55	5.82	5.64	6.45
LEUCINE	10.04	8.33	9.26	9.61
TYROSINE	2.56	19.19	17.07	13.38
PHENYLALANINE	4.43	22.04	15.17	5.57
ORNITHINE	5.24	6.09	3.52	4.43
LYSINE	5.12	14.44	9.74	12.15
HISTIDINE	1.09	1.04	5.02	1.60
ARGININE	7.08	0.25	5.47	5.40
TRYPHTOPHAN	0.45	0.40	0.10	0.10
α -KETOGLUTARATE	0.00	0.00	0.00	0.00

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PLASMA AMINO ACID LEVELS (µ-moles/dl)

SUBJECT ES/10/11 DATE 5/1/71 TEST MATERIAL WEIGHT 51 kg DOSE ADM.

AMINO ACID	0	30 min	60 min	120 min
TAURINE	3.29	3.17	2.67	1.92
ASPARTATE	3.04	3.82	2.53	1.77
THREONINE	17.45	16.04	16.51	16.01
SERINE	25.15	20.74	23.66	12.63
ASPARAGINE	4.85	3.61	6.52	2.31
GLUTAMINE	41.29	57.99	53.95	40.32
GLUTAMATE	7.45	11.89	10.94	7.91
PROLINE	20.84	20.01	21.31	15.56
CITRULLINE	1.01	0.41	0.22	0.54
GLYCINE	32.19	23.48	25.84	18.37
ALANINE	36.8	41.8	44.0	29.9
β-AMINO BUTYRATE	1.43	2.04	2.08	1.41
VALINE	11.06	11.03	11.92	13.27
4-CYSTINE	6.74	7.20	5.22	5.83
METHIONINE	2.47	2.22	2.21	1.77
ISOLEUCINE	4.10	3.67	3.77	3.22
LEUCINE	3.65	7.03	7.68	6.09
TYROSINE	1.59	11.97	19.84	17.04
PHENYLALANINE	5.07	20.1	25.42	14.5
ORNITHINE	9.47	6.45	5.72	3.14
LYSINE	13.74	17.77	13.36	10.77
HISTIDINE	0.1	0.1	0.25	0.1
ARGININE	11.22	17.11	14.07	5.77
TRYPTOPHAN	5.14	2.1	2.1	1.1
HYDROXYPROLINE				

PLASMA AMINO ACID LEVELS (moles/l)

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SUBJECT 20 DATE 10/10/68 TEST MATERIAL 10WEIGHT 75 DOSE ADM. 10

AMINO ACID	0	45 min	90 min	180 min
TAURINE	3.25	2.0	5.0	2.2
ASPARTATE	1.75	3.0	2.0	3.4
THREONINE	11.90	11.2	9.72	1.09
SERINE	23.52	25.5	23.0	2.02
ASPARAGINE	1.21	0.77	0.40	2.35
GLUTAMINE	39.24	35.51	34.07	33.23
GLUTAMATE	9.97	10.65	10.30	9.97
PROLINE	11.53	9.31	9.72	1.91
CITRULLINE	0.23	1.46	0.41	1.31
GLYCINE	41.62	30.87	32.07	34.06
ALANINE	34.0	36.0	33.4	36.3
α -AMINOBUTYRATE	0.73	1.22	0.37	0.32
VALINE	15.47	15.87	14.84	15.30
γ -CYSTINE	8.67	5.65	8.07	9.26
METHIONINE	2.33	2.27	2.10	1.93
ISOLEUCINE	4.43	9.41	5.11	9.56
LEUCINE	7.62	9.09	5.27	9.92
TYROSINE	0.56	9.50	0.10	8.74
PHENYLALANINE	5.14	30.0	25.2	5.55
ORNITHINE	10.25	3.00	4.0	10.00
LYSINE	9.7	1.00	1.00	1.00
HISTIDINE	0.7	0.0	0.0	0.0
ARGinine	0.0	0.0	0.0	0.0
TRYPTOPHAN	0.0	0.0	0.0	0.0
HOMO-PROLINE	0.0	0.0	0.0	0.0

PLASMA AMINO ACID LEVELS (umoles/dl)

SUBJECT 76-11-1 DATE 11-11-68 TEST MATERIAL 1WEIGHT 154 lb DOSE ADM. 1.0 g/kg

AMINO ACID	0	30 min	60 min	120 min
TAURINE	5.72	3.28	2.44	1.47
ASPARTATE	2.93	2.75	1.74	0.70
THREONINE	14.16	11.89	9.30	7.74
SERINE	25.81	22.23	17.35	14.99
ASPARAGINE	4.14	2.63	1.12	3.12
GLUTAMINE	76.59	72.99	59.30	60.10
GLUTAMATE	10.90	121.2	9.45	9.14
PROLINE	23.77	21.61	13.74	15.10
CITRULLINE	2.50	1.52	0.94	1.02
GLYCINE	28.75	22.62	17.77	10.31
ALANTINE	45.6	40.2	33.5	32.5
α -AMINO BUTYRATE	2.33	2.27	1.36	2.19
VALINE	24.94	22.92	20.14	21.40
4-CYSTINE	9.81	9.17	8.67	8.65
METHIONINE	26.8	22.6	19.1	18.6
ISOLEUCINE	6.23	5.89	4.73	5.00
LEUCINE	10.51	9.79	7.87	9.04
TYROSINE	7.15	13.65	13.54	12.60
PHENYLALANINE	5.00	29.17	21.52	13.10
ORNITHINE	13.92	12.40	8.20	7.76
LYSINE	20.70	10.30	13.11	12.00
HISTIDINE	10.16	5.00	1.20	
ARGININE	18.04	2.1	1.34	0.00
TRYPTOPHAN	1.00	1.00	1.00	1.00
HYDROXYPROLINE	1.00	1.00	1.00	1.00

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ERYTHROCYTE FREE AMINO ACID LEVELS (umol/L)

SUBJECT Boniken DATE 2-28-77 TEST MATER 1WEIGHT 9.04 kg DOSE 100 mg/kg

AMINO ACID	0	30 min	60 min	120 min
VALINE	88.63	73.05	76.70	47.77
ASPARTATE	17.69	16.15	15.60	5.20
THREONINE	2.99	6.63	5.66	4.79
SERINE	13.58	20.73	18.85	13.25
ASPARAGINE	5.65	5.22	8.11	6.67
GLUTAMINE	15.53	23.56	20.65	18.37
GLUTAMATE	32.14	36.86	30.51	35.32
PROLINE	9.51	16.02	12.23	14.51
GLYCINE	28.42	33.59	31.67	30.92
ALANINE	17.50	28.70	27.10	25.60
α -AMINOBUTYRATE	trace	trace	trace	trace
VALINE	13.46	15.03	13.26	16.00
METHIONINE	1.04	2.20	0.80	0.85
ISOLEUCINE	7.38	6.60	5.42	6.81
LEUCINE	9.52	7.35	5.83	5.80
TYROSINE	5.43	11.28	11.32	9.92
PHENYLALANINE	1.41	12.60	10.42	7.55
ORNITHINE	10.35	12.84	9.90	9.00
LYSINE	1.92	2.20	6.11	6.70
HISTIDINE	5.61	9.63	7.42	5.61
ARGININE	1.51	2.00	2.27	0.00

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ERYTHROCYTE FREE AMINO ACID LEVELS (umoles/100 gm red cells)

SUBJECT Rogers DATE 4-12-77 TEST MATERIAL APMA-K500 A-0WEIGHT 10.1 kg DOSE 100 mg/kg

AMINO ACID	0	45 min	90 min	150 min
TAURINE	50.62	60.77	59.69	21.37
ASPARTATE	16.82	19.48	8.75	15.65
THREONINE	9.08	6.27	4.75	3.37
SERINE	24.61	20.13	14.58	12.41
ASPARAGINE	1.40	3.44	5.67	5.41
GLUTAMINE	20.96	31.25	24.90	19.19
GLUTAMATE	33.43	33.78	28.41	23.70
PROLINE	10.70	13.28	8.53	6.41
GLYCINE	36.58	33.22	34.13	24.65
ALANINE	30.00	24.60	19.00	14.70
α -AMINOBUTYRATE	0.52	TRACE	TRACE	TRACE
VALINE	14.93	20.28	20.00	13.75
METHIONINE	4.71	2.05	2.20	1.12
ISOLEUCINE	10.61	10.31	11.11	8.33
LEUCINE	10.48	10.64	12.42	10.74
TYROSINE	6.63	11.97	9.67	5.65
PHENYLALANINE	4.25	15.84	10.90	7.52
ORNITHINE	3.78	16.56	3.00	0.00
LYSINE	9.80	8.30	5.20	4.00
HISTIDINE	5.20	9.12	5.75	4.11
ARGININE	2.13	2.16	1.10	1.35

ERYTHROCYTE FREE AMINO ACID LEVELS (umoles/100 gm red cells)

SUBJECT Maxted DATE 4-13-77 TEST MATERIAL ADONIS

WEIGHT 7.36 kg DOSE 100 mc/kg

AMINO ACID	0	45 min	90 min	150 min
TAURINE	3.86	2.71	3.21	3.03
ASPARTATE	11.52	10.53	9.12	11.47
THREONINE	4.46	3.71	2.54	3.73
SERINE	14.45	11.32	10.98	13.81
ASPARAGINE	3.09	3.91	3.52	3.29
GLUTAMINE	18.58	24.94	20.90	21.27
GLUTAMATE	14.22	11.14	13.50	12.94
PROLINE	4.65	3.83	4.42	4.17
GLYCINE	25.95	22.11	19.40	22.77
ALANINE	19.00	14.80	14.70	14.60
α -AMINO BUTYRATE	0.99	0.72	0.85	0.83
VALINE	15.27	12.64	9.51	13.03
METHIONINE	0.76	0.83	1.20	1.50
ISOLEUCINE	6.23	7.05	5.70	7.68
LEUCINE	8.06	6.71	6.57	8.25
TYROSINE	4.38	8.24	6.81	7.10
PHENYLALANINE	3.70	9.75	6.60	6.20
ORNITHINE	7.25	5.60	5.03	6.13
LYSINE	5.70	3.63	4.12	3.13
HISTIDINE	4.48	2.11	2.21	3.13
ARGININE	5.00	6.00	4.13	5.13

ERYTHROCYTE FREE AMINO ACID LEVELS (nmoles 100 gm red cells)

SUBJECT Snelson DATE 1-13-77 TEST MATERIAL SPM-100-10WEIGHT 9.97 kg DOSE 100 mg/kg

AMINO ACID	0	30 min	60 min	120 min
THURINE	2.98	2.40	5.50	3.51
ASPARTATE	25.90	23.92	23.04	27.41
THREONINE	9.66	7.98	7.35	6.52
SERINE	11.95	12.60	12.29	15.31
ASPARAGINE	9.40	8.58	9.96	12.13
GLUTAMINE	24.07	22.77	22.11	24.54
GLUTAMATE	21.06	18.55	20.90	23.18
PROLINE	8.94	12.79	11.55	12.65
GLYCINE	21.00	18.72	18.35	21.03
ALANINE	31.00	26.10	21.00	22.60
α -AMINOBUTYRATE	0	0	0	0
VALINE	15.57	16.57	14.07	17.32
METHIONINE	TRACE	TRACE	TRACE	0
ISOLEUCINE	3.28	4.12	4.16	4.42
LEUCINE	6.53	5.75	4.98	7.25
TYROSINE	6.33	8.30	8.04	9.34
PHENYLALANINE	4.47	4.17	7.58	7.04
ORNITHINE	9.01	8.65	8.58	9.48
LYSINE	5.82	5.20	4.32	5.81
HISTIDINE	5.32	4.1	5.32	4.1
ARGININE	2.28	2.0	0	0

180

ERYTHROCYTE FREE AMINO ACID LEVELS μ moles 100 gm red cellsSUBJECT BrooksDATE 4-30-77TEST MATERIAL APM-1113WEIGHT 9.15 kgDOSE 100 mg/kg

AMINO ACID	0	30 min	60 min	120 min
TAURINE	6605	411	262	392
ASPARTATE	3003	2805	2200	2693
THREONINE	618	738	692	628
SERINE	1760	1513	1492	1460
ASPARAGINE	1043	811	723	927
GLUTAMINE	1137	3439	3316	3091
GLUTAMATE	3854	2495	2422	2379
PROLINE	1207	815	752	568
GLYCINE	3063	2901	2835	2789
ALANINE	3270	3280	3100	3270
α -AMINO BUTYRATE	0	0	0	0
VALINE	1370	1136	1066	1005
METHIONINE	100	110	0.90	0.90
ISOLEUCINE	505	256	236	357
LEUCINE	449	490	517	423
TYROSINE	228	808	1012	912
PHENYLALANINE	201	816	1255	922
ORNITHINE	822	863	902	83
LYSINE	513	428	431	507
HISTIDINE	617	557	522	550
ARGININE	325	291	340	300

ERYTHROCYTE FREE AMINO ACID LEVELS (nmol/100 gm red cells)

SUBJECT Kober DATE 4-20-77 TEST MATERIAL SPM-1111WEIGHT 10.24 kg DOSE 100 mg/kg

AMINO ACID	0	45 min	90 min	150 min
TAURINE	4.43	3.21	4.31	18.85
ASPARTATE	13.74	16.21	15.71	16.10
THREONINE	5.31	5.67	5.31	6.07
SERINE	16.73	16.95	16.97	17.49
ASPARAGINE	9.25	8.73	6.67	3.89
GLUTAMINE	26.57	26.65	22.79	21.30
GLUTAMATE	17.60	17.63	18.07	18.41
PROLINE	14.60	15.21	13.30	18.08
GLYCINE	27.09	27.48	26.04	26.32
ALANINE	31.70	36.90	35.90	32.70
α -AMINOBUTYRATE	1.18	2.92	1.68	1.26
VALINE	16.51	13.90	12.35	11.35
METHIONINE	1.58	1.65	1.44	1.31
ISOLEUCINE	10.38	8.31	8.17	7.77
LEUCINE	8.95	7.89	7.69	6.47
TYROSINE	8.42	18.72	13.73	18.60
PHENYLALANINE	4.32	13.15	6.35	20.15
ORNITHINE	7.90	8.40	6.36	12.35
LYSINE	7.11	7.10	6.38	9.77
HISTIDINE	6.25	8.01	5.20	6.00
ARGININE	2.37	2.82	2.87	2.30

ERYTHROCYTE FREE AMINO ACID LEVELS (umoles/100 gm red cells)

SUBJECT Fricson (#1) DATE 5-13-77 TEST MATERIAL SPM-4000WEIGHT 8.31 kg DOSE 100 mg/kg

AMINO ACID	0	30 min	60 min	120 min
TAURINE	3.25	8.25	1.27	1.64
ASPARTATE	21.7	26.9	24.8	23.7
THREONINE	13.5	11.5	10.9	8.13
SERINE	16.4	14.9	15.3	14.4
ASPARAGINE	10.7	10.5	11.4	9.33
GLUTAMINE	38.7	35.9	34.3	29.5
GLUTAMATE	19.9	15.6	16.3	15.3
PROLINE	16.1	7.61	8.09	11.3
GLYCINE	31.5	28.9	29.9	27.3
ALANINE	31.7	31.8	33.2	28.4
α -AMINO BUTYRATE	trace	trace	trace	trace
VALINE	11.7	17.1	10.7	9.65
METHIONINE	2.35	1.56	1.22	1.41
ISOLEUCINE	3.15	2.67	2.23	2.09
LEUCINE	4.50	2.24	2.10	2.72
TYROSINE	7.91	12.4	17.1	11.2
PHENYLALANINE	2.06	26.2	20.4	7.23
ORNITHINE	10.9	10.2	11.2	10.4
LYSINE	9.37	7.38	7.39	8.36
HISTIDINE	3.15	2.29	2.97	2.21
ARGININE	3.33	2.94	1.31	2.20

ERYTHROCYTE FREE AMINO ACID LEVELS (micromoles/100 gm red cells)

SUBJECT Madsall (#2)DATE 5-18-77TEST MATERIAL AspartameWEIGHT 9.58 KgDOSE 100 mg/kg

AMINO ACID	0	45 min	90 min	150 min
TAURINE	2.11	3.45	1.71	1.17
ASPARTATE	11.52	13.80	12.62	9.96
THREONINE	4.40	4.61	5.52	6.62
SERINE	13.48	20.33	22.22	17.59
ASPARAGINE	6.32	8.79	7.65	4.69
GLUTAMINE	32.00	30.96	32.10	29.63
GLUTAMATE	14.04	22.07	21.55	18.10
PROLINE	8.40	6.92	2.33	5.00
GLYCINE	41.54	40.45	47.05	35.03
ALANINE	23.2	29.4	33.5	25.2
α -AMINO BUTYRATE	0	0	0	0
VALINE	10.40	15.37	15.05	12.66
METHIONINE	trace	2.65	1.65	1.43
ISOLEUCINE	6.32	6.32	4.91	4.44
LEUCINE	4.63	6.47	4.83	5.86
TYROSINE	5.84	4.25	8.74	7.04
PHENYLALANINE	3.30	24.15	23.12	11.67
ORNITHINE	12.04	15.76	10.33	11.44
LYSINE	0.64	0.33	0.42	4.3
HISTIDINE	2.24	2.44	2.70	5.23
ARGININE	3.40	2.2	1.30	2.66

ERYTHROCYTE FREE AMINO ACID LEVELS (umoles/100 gm red cells)

SUBJECT Friction #2 DATE 6-1-77 TEST MATERIAL APM--KODIA
 WEIGHT 8.96 kg DOSE 100 mg/kg

AMINO ACID	0	30 min	60 min	120 min
TAURINE	25.60	21.97	13.72	27.12
ASPARTATE	29.35	24.37	21.43	23.53
THREONINE	4.68	7.02	5.34	4.38
SERINE	17.23	12.50	10.02	9.63
ASPARAGINE	8.51	7.87	3.35	5.55
GLUTAMINE	41.66	41.67	35.76	35.15
GLUTAMATE	26.45	20.67	19.61	22.40
PROLINE	11.47	8.71	11.36	11.60
GLYCINE	24.67	21.83	17.90	16.77
ALANINE	25.1	25.4	22.4	21.1
α -AMINO BUTYRATE	0.97	0.94	0.45	0.34
VALINE	15.55	10.70	13.11	15.38
METHIONINE	1.50	1.31	0.45	1.01
ISOLEUCINE	4.06	7.09	2.97	3.06
LEUCINE	9.45	0.45	5.20	5.24
TYROSINE	6.71	7.56	7.91	5.00
PHENYLALANINE	3.55	14.24	11.14	7.55
ORNITHINE	15.07	10.33	5.21	9.41
LYSINE	11.06	10.63	6.90	6.70
HISTIDINE	10.20	5.14	6.66	6.68
ARGININE	1.71	5.55	2.57	2.20

BLOOD METHANOL VALUES

185

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME BCHLKEN
DATE 4/12/77
ASPARTAME DOSE 100 mg/kg

TIME (min.)	METHANOL (mg%)
0	0.0
30	0.68
45	-
60	0.70
90	-
120	0.16
150	-

186

BLOOD METHANOL VALUES

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME

ROGERS

DATE

4/12/77

ASPARTAME DOSE

100 mg/kg

TIME (min.)

METHANOL (mg%)

0

0.0

30

-

45

0.45

60

-

90

1.83

120

-

150

1.27

BLOOD METHANOL VALUES

187

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME

MAXTED

DATE

4/13/77

ASPARTAME DOSE

1.00 mg/kg

TIME (min.)

METHANOL (mg%)

0

0.09

30

-

45

0.42

60

-

90

0.89

120

-

150

0.28

BLOOD METHANOL VALUES

188

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME SHELDON
DATE 4/13/77
ASPARTAME DOSE 1.5 mg/kg

TIME (min.)	METHANOL (mg%)
0	0.07
30	0.28
45	-
60	1.19
90	-
120	0.25
150	-

BLOOD METHANOL VALUES

189

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME BROOKS

DATE 4/19/77

ASPARTAME DOSE 100 mg/kg

TIME (min.)	METHANOL (mg%)
0	0.0
30	0.19
45	-
60	0.21
90	-
120	0.15
150	-

190

BLOOD METHANOL VALUES

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME KCB9.R
DATE 4/20/77
ASPARTAME DOSE 100 mg/kg

TIME (min.)	METHANOL (mg%)
0	<u>8.0</u>
30	<u>-</u>
45	<u>0.65</u>
60	<u>-</u>
90	<u>0.73</u>
120	<u>-</u>
150	<u>0.08</u>

191

BLOOD METHANOL VALUES

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME FRIC.TON
DATE 5/18/77
ASPARTAME DOSE 100 mg/kg

<u>TIME (min.)</u>	<u>METHANOL (mg%)</u>
0	<u>0.38</u>
30	<u>0.48</u>
45	<u>-</u>
60	<u>0.51</u>
90	<u>-</u>
120	<u>0.12</u>
150	<u>-</u>

BLOOD METHANOL VALUES

192

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME

HADSEU

DATE

5/18/77

ASPARTAME DOSE

100 mg/kg

TIME (min.)

METHANOL (mg%)

0

0.24

30

-

45

0.68

60

..

90

0.63

120

-

150

0.37

BLOOD METHANOL VALUES

193

BLOOD METABOLISM IN ONE-YEAR-OLD CHILDREN

SUBJECT NAME FRICTON
DATE 6/1/77
ASPARTAME DOSE 100 mg/kg

TIME (min.)	METHANOL (mg%)
0	0.24
30	0.27
45	-
60	0.62
90	-
120	0.34
150	-