

Study Number: C94043-03
Test Type: TOX
Route: Dosing in Water
Species/Strain: Rat/Harlan Sprague Dawley

PA41: Clinical Chemistry Summary
Test Compound: Sodium Metavanadate
CAS Number: 13718-26-8

Date Report Requested: 08/02/2021
Time Report Requested: 09:10:04
Lab: Battelle

Study Number: C94043-03
Study Gender: Both
PWG Approval Date: See web page for date of PWG Approval
Version: v1.2.8
Stat Version: S

Study Number: C94043-03

Test Type: TOX

Route: Dosing in Water

Species/Strain: Rat/Harlan Sprague Dawley

PA41: Clinical Chemistry Summary

Test Compound: Sodium Metavanadate

CAS Number: 13718-26-8

Date Report Requested: 08/02/2021

Time Report Requested: 09:10:04

Lab: Battelle

F1 Male: F1 Core Animals

	Phase Day	Treatment Groups (mg/L)				
		0	31.3	62.5	125	250
Urea Nitrogen (mg/dL)	PND 120 - 122	16.0 ± 0.4 (9) **	15.4 ± 0.5 (10)	17.1 ± 0.7 (9)	18.1 ± 0.8 (8) *	23.0 ± 0.8 (8) **
Percent of Control			96.3	106.9	113.3	143.8
Creatinine (mg/dL)	PND 120 - 122	0.36 ± 0.02 (5)	0.36 ± 0.02 (5)	0.36 ± 0.02 (5)	0.30 ± 0.00 (5)	0.38 ± 0.02 (5)
Percent of Control			100.0	100.0	83.3	105.6
Glucose (mg/dL)	PND 120 - 122	136.1 ± 6.6 (9) *	127.5 ± 4.0 (10)	127.4 ± 2.6 (9)	123.4 ± 3.9 (9)	123.4 ± 3.6 (8)
Percent of Control			93.7	93.6	90.7	90.6
Total Protein (g/dL)	PND 120 - 122	7.06 ± 0.11 (9)	6.82 ± 0.06 (10)	6.79 ± 0.09 (9)	6.99 ± 0.21 (8)	6.89 ± 0.09 (9)
Percent of Control			96.7	96.2	99.0	97.6
Globulin (g/dL)	PND 120 - 122	2.50 ± 0.08 (9) **	2.27 ± 0.04 (10)	2.37 ± 0.08 (9)	2.39 ± 0.09 (8)	2.19 ± 0.07 (9) **
Percent of Control			90.8	94.7	95.5	87.6
A/G Ratio	PND 120 - 122	1.84 ± 0.06 (9) **	2.01 ± 0.04 (10)	1.89 ± 0.08 (9)	1.94 ± 0.04 (8)	2.16 ± 0.07 (9) **
Percent of Control			109.5	102.9	105.4	117.8
Albumin (g/dL)	PND 120 - 122	4.61 ± 0.08 (10) *	4.55 ± 0.03 (10)	4.44 ± 0.04 (10)	4.57 ± 0.10 (10)	4.71 ± 0.05 (10)
Percent of Control			98.7	96.3	99.1	102.2
Cholesterol (mg/dL)	PND 120 - 122	141.6 ± 5.6 (8) **	134.4 ± 3.7 (10)	132.8 ± 5.0 (9)	125.2 ± 4.7 (10) *	125.1 ± 7.0 (10) *
Percent of Control			94.9	93.8	88.4	88.3
Triglyceride (mg/dL)	PND 120 - 122	119.8 ± 12.9 (9)	136.1 ± 12.9 (10)	128.1 ± 12.7 (9)	120.8 ± 10.9 (8)	153.0 ± 18.5 (10)
Percent of Control			113.6	107.0	100.8	127.7

Study Number: C94043-03

Test Type: TOX

Route: Dosing in Water

Species/Strain: Rat/Harlan Sprague Dawley

PA41: Clinical Chemistry Summary

Test Compound: Sodium Metavanadate

CAS Number: 13718-26-8

Date Report Requested: 08/02/2021

Time Report Requested: 09:10:04

Lab: Battelle

F1 Male: F1 Core Animals

	Phase Day	Treatment Groups (mg/L)				
		0	31.3	62.5	125	250
Alanine Aminotransferase (IU/L)	PND 120 - 122	48.7 ± 2.0 (9) **	49.0 ± 1.3 (10)	46.7 ± 1.8 (9)	56.2 ± 2.7 (9)	60.8 ± 3.6 (9)
Percent of Control			100.7	95.9	115.5	124.9
Alkaline Phosphatase (IU/L)	PND 120 - 122	128.9 ± 5.1 (9) **	121.7 ± 5.1 (10)	128.8 ± 7.8 (9)	123.7 ± 6.7 (10)	99.8 ± 5.8 (10) **
Percent of Control			94.4	99.9	96.0	77.4
Creatine Kinase (IU/L)	PND 120 - 122	424.0 ± 76.3 (8)	283.7 ± 43.4 (10)	307.6 ± 49.9 (9)	338.6 ± 62.6 (9)	297.6 ± 28.1 (9)
Percent of Control			66.9	72.5	79.8	70.2
Sorbitol Dehydrogenase (IU/L)	PND 120 - 122	14.1 ± 1.3 (10) *	13.6 ± 0.8 (10)	11.7 ± 0.7 (9)	11.8 ± 0.6 (10)	13.0 ± 1.1 (10)
Percent of Control			96.7	83.0	83.8	92.1
Bile salt/acids (µmol/L)	PND 120 - 122	29.9 ± 5.0 (8) *	40.0 ± 3.2 (10)	48.8 ± 2.9 (9) *	27.9 ± 4.5 (9)	31.7 ± 4.7 (10)
Percent of Control			133.9	163.3	93.4	106.1

Study Number: C94043-03

Test Type: TOX

Route: Dosing in Water

Species/Strain: Rat/Harlan Sprague Dawley

PA41: Clinical Chemistry Summary

Test Compound: Sodium Metavanadate

CAS Number: 13718-26-8

Date Report Requested: 08/02/2021

Time Report Requested: 09:10:04

Lab: Battelle

F1 Male: F1 Core Animals

	Phase Day	Treatment Groups	
		500	
Urea Nitrogen (mg/dL)	PND 120 - 122	30.9 ± 1.0	(9) **
Percent of Control		193.1	
Creatinine (mg/dL)	PND 120 - 122	0.38 ± 0.02	(6)
Percent of Control		106.5	
Glucose (mg/dL)	PND 120 - 122	121.8 ± 3.0	(11)
Percent of Control		89.5	
Total Protein (g/dL)	PND 120 - 122	6.83 ± 0.12	(9)
Percent of Control		96.9	
Globulin (g/dL)	PND 120 - 122	2.03 ± 0.03	(9) **
Percent of Control		81.3	
A/G Ratio	PND 120 - 122	2.36 ± 0.03	(9) **
Percent of Control		128.6	
Albumin (g/dL)	PND 120 - 122	4.77 ± 0.07	(12)
Percent of Control		103.6	
Cholesterol (mg/dL)	PND 120 - 122	111.6 ± 2.8	(10) **
Percent of Control		78.8	
Triglyceride (mg/dL)	PND 120 - 122	112.0 ± 12.1	(10)
Percent of Control		93.5	

Study Number: C94043-03

Test Type: TOX

Route: Dosing in Water

Species/Strain: Rat/Harlan Sprague Dawley

PA41: Clinical Chemistry Summary

Test Compound: Sodium Metavanadate

CAS Number: 13718-26-8

Date Report Requested: 08/02/2021

Time Report Requested: 09:10:04

Lab: Battelle

F1 Male: F1 Core Animals

	Phase Day	Treatment Groups
		500
Alanine Aminotransferase (IU/L)	PND 120 - 122	56.9 ± 4.8 (10)
Percent of Control		116.9
Alkaline Phosphatase (IU/L)	PND 120 - 122	96.9 ± 4.0 (11) **
Percent of Control		75.2
Creatine Kinase (IU/L)	PND 120 - 122	493.1 ± 121.0 (9)
Percent of Control		116.3
Sorbitol Dehydrogenase (IU/L)	PND 120 - 122	12.0 ± 1.6 (12)
Percent of Control		85.0
Bile salt/acids (µmol/L)	PND 120 - 122	23.3 ± 2.8 (10)
Percent of Control		78.0

Study Number: C94043-03

Test Type: TOX

Route: Dosing in Water

Species/Strain: Rat/Harlan Sprague Dawley

PA41: Clinical Chemistry Summary

Test Compound: Sodium Metavanadate

CAS Number: 13718-26-8

Date Report Requested: 08/02/2021

Time Report Requested: 09:10:04

Lab: Battelle

F1 Female: F1 Core Animals

	Phase Day	Treatment Groups (mg/L)				
		0	31.3	62.5	125	250
Urea Nitrogen (mg/dL)	PND 119 - 120	15.7 ± 0.7 (10) **	15.5 ± 0.3 (10)	17.8 ± 0.9 (10)	16.6 ± 0.7 (10)	20.1 ± 0.7 (10) **
Percent of Control			98.7	113.4	105.7	128.0
Creatinine (mg/dL)	PND 119 - 120	0.45 ± 0.02 (10) *	0.43 ± 0.02 (10)	0.46 ± 0.02 (10)	0.41 ± 0.01 (10)	0.43 ± 0.02 (10)
Percent of Control			95.6	102.2	91.1	95.6
Glucose (mg/dL)	PND 119 - 120	150.4 ± 4.9 (10)	142.2 ± 5.5 (10)	152.5 ± 6.2 (10)	146.9 ± 6.1 (10)	137.7 ± 5.7 (10)
Percent of Control			94.5	101.4	97.7	91.6
Total Protein (g/dL)	PND 119 - 120	6.76 ± 0.09 (10) *	6.75 ± 0.06 (10)	6.74 ± 0.07 (10)	6.56 ± 0.09 (10)	6.72 ± 0.06 (10)
Percent of Control			99.9	99.7	97.0	99.4
Globulin (g/dL)	PND 119 - 120	1.90 ± 0.04 (10) **	1.86 ± 0.06 (10)	1.82 ± 0.06 (10)	1.87 ± 0.06 (10)	1.78 ± 0.05 (10)
Percent of Control			97.9	95.8	98.4	93.7
A/G Ratio	PND 119 - 120	2.57 ± 0.04 (10) **	2.66 ± 0.11 (10)	2.74 ± 0.13 (10)	2.53 ± 0.09 (10)	2.80 ± 0.10 (10)
Percent of Control			103.6	106.9	98.7	109.0
Albumin (g/dL)	PND 119 - 120	4.86 ± 0.05 (10)	4.89 ± 0.07 (10)	4.92 ± 0.06 (10)	4.69 ± 0.07 (10)	4.94 ± 0.06 (10)
Percent of Control			100.6	101.2	96.5	101.6
Cholesterol (mg/dL)	PND 119 - 120	119.1 ± 4.0 (10) **	116.5 ± 3.2 (10)	127.3 ± 4.9 (10)	114.1 ± 5.1 (10)	108.3 ± 2.3 (10) *
Percent of Control			97.8	106.9	95.8	90.9
Triglyceride (mg/dL)	PND 119 - 120	72.3 ± 8.6 (10)	84.2 ± 9.7 (10)	69.1 ± 6.3 (10)	78.4 ± 9.4 (10)	63.6 ± 2.5 (10)
Percent of Control			116.5	95.6	108.4	88.0

Study Number: C94043-03

Test Type: TOX

Route: Dosing in Water

Species/Strain: Rat/Harlan Sprague Dawley

PA41: Clinical Chemistry Summary

Test Compound: Sodium Metavanadate

CAS Number: 13718-26-8

Date Report Requested: 08/02/2021

Time Report Requested: 09:10:04

Lab: Battelle

F1 Female: F1 Core Animals

	Phase Day	Treatment Groups (mg/L)				
		0	31.3	62.5	125	250
Alanine Aminotransferase (IU/L)	PND 119 - 120	41.0 ± 2.4 (10) **	47.4 ± 2.7 (10)	45.1 ± 2.3 (10)	51.5 ± 3.2 (10) *	50.4 ± 1.7 (10) **
Percent of Control			115.6	110.0	125.6	122.9
Alkaline Phosphatase (IU/L)	PND 119 - 120	112.2 ± 3.2 (10) **	103.1 ± 6.3 (10)	106.8 ± 9.4 (10)	87.5 ± 5.1 (10) **	74.8 ± 4.8 (10) **
Percent of Control			91.9	95.2	78.0	66.7
Creatine Kinase (IU/L)	PND 119 - 120	330.8 ± 83.6 (10)	277.8 ± 52.1 (10)	436.8 ± 77.1 (10)	472.2 ± 154.8 (10)	339.1 ± 74.1 (10)
Percent of Control			84.0	132.0	142.7	102.5
Sorbitol Dehydrogenase (IU/L)	PND 119 - 120	11.7 ± 0.9 (10)	14.2 ± 1.1 (10)	10.5 ± 1.4 (10)	10.9 ± 1.1 (10)	11.7 ± 1.2 (10)
Percent of Control			121.6	89.9	92.8	99.6
Bile salt/acids (µmol/L)	PND 119 - 120	33.8 ± 7.8 (10)	42.0 ± 10.3 (10)	42.3 ± 6.8 (10)	27.2 ± 6.1 (10)	49.2 ± 12.1 (10)
Percent of Control			124.3	125.1	80.5	145.6

Study Number: C94043-03

Test Type: TOX

Route: Dosing in Water

Species/Strain: Rat/Harlan Sprague Dawley

PA41: Clinical Chemistry Summary

Test Compound: Sodium Metavanadate

CAS Number: 13718-26-8

Date Report Requested: 08/02/2021

Time Report Requested: 09:10:04

Lab: Battelle

F1 Female: F1 Core Animals

	Phase Day	Treatment Groups
		500
Urea Nitrogen (mg/dL)	PND 119 - 120	26.2 ± 0.7 (10) **
Percent of Control		166.9
Creatinine (mg/dL)	PND 119 - 120	0.39 ± 0.02 (10)
Percent of Control		86.7
Glucose (mg/dL)	PND 119 - 120	136.5 ± 4.5 (10)
Percent of Control		90.8
Total Protein (g/dL)	PND 119 - 120	6.40 ± 0.09 (10) *
Percent of Control		94.7
Globulin (g/dL)	PND 119 - 120	1.63 ± 0.05 (10) **
Percent of Control		85.8
A/G Ratio	PND 119 - 120	2.94 ± 0.08 (10) **
Percent of Control		114.8
Albumin (g/dL)	PND 119 - 120	4.77 ± 0.06 (10)
Percent of Control		98.1
Cholesterol (mg/dL)	PND 119 - 120	96.1 ± 2.9 (10) **
Percent of Control		80.7
Triglyceride (mg/dL)	PND 119 - 120	65.2 ± 5.9 (10)
Percent of Control		90.2

Study Number: C94043-03

Test Type: TOX

Route: Dosing in Water

Species/Strain: Rat/Harlan Sprague Dawley

PA41: Clinical Chemistry Summary

Test Compound: Sodium Metavanadate

CAS Number: 13718-26-8

Date Report Requested: 08/02/2021

Time Report Requested: 09:10:04

Lab: Battelle

F1 Female: F1 Core Animals

	Phase Day	Treatment Groups
		500
Alanine Aminotransferase (IU/L)	PND 119 - 120	57.4 ± 3.2 (10) **
Percent of Control		140.0
Alkaline Phosphatase (IU/L)	PND 119 - 120	82.0 ± 4.1 (10) **
Percent of Control		73.1
Creatine Kinase (IU/L)	PND 119 - 120	462.7 ± 92.6 (10)
Percent of Control		139.9
Sorbitol Dehydrogenase (IU/L)	PND 119 - 120	10.1 ± 0.6 (10)
Percent of Control		86.2
Bile salt/acids (µmol/L)	PND 119 - 120	28.8 ± 3.8 (10)
Percent of Control		85.2

Study Number: C94043-03

Test Type: TOX

Route: Dosing in Water

Species/Strain: Rat/Harlan Sprague Dawley

PA41: Clinical Chemistry Summary

Test Compound: Sodium Metavanadate

CAS Number: 13718-26-8

Date Report Requested: 08/02/2021

Time Report Requested: 09:10:04

Lab: Battelle

LEGEND

Values given as mean \pm SEM (N) with Percent of Control calculated by (dosed group mean / control group mean) x 100

PND - Postnatal Day, adults post-weaning

Statistical analysis was performed by Jonckheere (trend) and Shirley or Dunn (pairwise) tests.

Statistical significance for the control group indicates a significant trend test

Statistical significance for a treatment group indicates a significant pairwise test compared to the vehicle control group

* Statistically significant at $P \leq 0.05$

** Statistically significant at $P \leq 0.01$

Total bilirubin values were not reported due to data issues.

F1 Core Male observations were excluded as outliers as follows: Control group – One animal had alanine aminotransferase, alkaline phosphatase, bile acids, cholesterol, glucose, and urea nitrogen excluded. This animal and one other control F1 Core Male had their creatine kinase values excluded as well. 62.5 mg/L group – One triglyceride value. 125 mg/L group – One alanine aminotransferase, glucose, total protein, and triglyceride value. 250 mg/L group – One creatine kinase value. 500 mg/L group – One bile acids, cholesterol, and triglycerides value, and two creatine kinase values.

The 500 mg/L group for the F1 Core animals contained multiple animals per litter, but all other groups contained only one animal per sex per litter. Litter-based methods were not used in the analysis of the F1 Core animals.

**** END OF REPORT ****