

**Study Number:** C94043-03

**Test Type:** TOX

**Route:** Dosing in Water

**Species/Strain:** Rat/Harlan Sprague Dawley

**Study Number:**

**Study Gender:**

**PWG Approval Date:**

**Version:**

**PA03R: Non-Neoplastic Lesion Summary with Percent and Litter Incidence**

**Test Compound:** Sodium Metavanadate

**CAS Number:** 13718-26-8

C94043-03

Both

See web page for date of PWG Approval

v1.3.5

**Date Report Requested:** 01/18/2022

**Time Report Requested:** 08:10:13

**Lab:** Battelle with EPL

**Study Number:** C94043-03

**PA03R: Non-Neoplastic Lesion Summary with Percent and Litter Incidence**

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**Species/Strain:** Rat/Harlan Sprague Dawley

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**F1 Male: F1 Core Animals**

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**Treatment Groups (mg/L)**

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**0                      31.3                      62.5                      125                      250                      500**

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**Disposition Summary**

<b>Animals Initially In Study</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>13</b>
<b>Censored</b>						
<b>Early Deaths</b>						
<b>Sacrificed, Moribund</b>						<b>1</b>
<b>Survivors</b>						
<b>Scheduled Sacrifice, Terminal</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>12</b>
<b>Number Animals Examined Microscopically</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>13</b>
<b>Total number litters</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>4</b>

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Species/Strain: Rat/Harlan Sprague Dawley

F1 Male: F1 Core Animals

	Treatment Groups (mg/L)					
	0	31.3	62.5	125	250	500
ALIMENTARY SYSTEM						
ESOPHAGUS	(10)	(0)	(0)	(0)	(0)	(13)
INTESTINE, LARGE, CECUM	(10)	(10)	(10)	(10)	(10)	(13)
EPITHELIUM; HYPERPLASIA					2 (20%) [2]	1 (8%) [1]
EPITHELIUM; NECROSIS						1 (8%) [1]
INTESTINE, LARGE, COLON	(10)	(10)	(10)	(10)	(10)	(12)
INTESTINE, LARGE, RECTUM	(10)	(10)	(10)	(10)	(9)	(13)
EPITHELIUM; HYPERPLASIA						1 (8%) [1]
INTESTINE, SMALL, DUODENUM	(10)	(0)	(0)	(0)	(10)	(13)
EPITHELIUM; HYPERPLASIA						1 (8%) [1]
INTESTINE, SMALL, ILEUM	(10)	(10)	(9)	(9)	(10)	(13)
EPITHELIUM; HYPERPLASIA				5 (56%) [5]	9 (90%) [9]	12 (92%) [4]
INTESTINE, SMALL, JEJUNUM	(10)	(0)	(10)	(10)	(10)	(13)
EPITHELIUM; HYPERPLASIA				1 (10%) [1]	6 (60%) [6]	7 (54%) [4]
LYMPHOID TISSUE; HYPERPLASIA						1 (8%) [1]
LIVER	(10)	(0)	(0)	(0)	(0)	(13)
PANCREAS	(10)	(0)	(0)	(0)	(0)	(13)
ACINUS; SECRETORY DEPLETION						1 (8%) [1]
SALIVARY GLANDS	(10)	(0)	(0)	(0)	(0)	(13)
STOMACH, FORESTOMACH	(10)	(0)	(0)	(0)	(0)	(13)
STOMACH, GLANDULAR	(10)	(10)	(10)	(10)	(10)	(13)
EPITHELIUM; ATROPHY						1 (8%) [1]
MINERAL	3 (30%) [3]	4 (40%) [4]	6 (60%) [6]	5 (50%) [5]	3 (30%) [3]	9 (69%) [3]

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Lab: Battelle with EPL

Species/Strain: Rat/Harlan Sprague Dawley

F1 Male: F1 Core Animals

	Treatment Groups (mg/L)					
	0	31.3	62.5	125	250	500
<b>CARDIOVASCULAR SYSTEM</b>						
AORTA	(10)	(0)	(0)	(0)	(0)	(13)
HEART	(10)	(0)	(0)	(0)	(0)	(13)
VALVE; ANGIECTASIS						1 (8%) [1]
CARDIOMYOPATHY	2 (20%) [2]					
VALVE; HEMORRHAGE						1 (8%) [1]
EPICARDIUM; INFLAMMATION; CHRONIC						1 (8%) [1]
VALVE; INFLAMMATION; CHRONIC						1 (8%) [1]
<b>ENDOCRINE SYSTEM</b>						
ADRENAL GLAND	(10)	(0)	(0)	(0)	(0)	(13)
ACCESSORY ADRENOCORTICAL NODULE						1 (8%) [1]
CORTEX; CYTOPLASMIC VACUOLATION						1 (8%) [1]
PARATHYROID GLAND	(10)	(0)	(0)	(0)	(0)	(12)
PITUITARY GLAND	(10)	(0)	(0)	(0)	(0)	(13)
PARS DISTALIS; CYST	1 (10%) [1]					
PARS INTERMEDIA; CYST						1 (8%) [1]
THYROID GLAND	(10)	(0)	(0)	(0)	(0)	(13)
CYST	2 (20%) [2]					2 (15%) [2]
ECTOPIC TISSUE, THYMUS						1 (8%) [1]
<b>GENERAL BODY SYSTEM</b>						
No Tissues/Organs Examined						

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F1 Male: F1 Core Animals

	Treatment Groups (mg/L)					
	0	31.3	62.5	125	250	500
GENITAL SYSTEM						
EPIDIDYMIS	(10)	(0)	(0)	(0)	(0)	(13)
PREPUTIAL GLAND	(10)	(0)	(0)	(0)	(0)	(13)
INFILTRATE, CELLULAR; LYMPHOCYTE						2 (15%) [1]
INFLAMMATION; CHRONIC-ACTIVE						1 (8%) [1]
PROSTATE	(10)	(0)	(0)	(0)	(0)	(13)
SEMINAL VESICLE	(10)	(0)	(0)	(0)	(0)	(12)
TESTES	(0)	(0)	(0)	(0)	(0)	(1)
TESTIS	(10)	(0)	(0)	(0)	(0)	(13)
GERMINAL EPITHELIUM; DEGENERATION	1 (10%) [1]					
HEMATOLYMPHOID SYSTEM						
BONE MARROW	(10)	(0)	(0)	(0)	(0)	(13)
LYMPH NODE, MANDIBULAR	(10)	(0)	(0)	(0)	(0)	(13)
LYMPHOCYTE; APOPTOSIS						1 (8%) [1]
LYMPH NODE, MESENTERIC	(10)	(0)	(0)	(0)	(0)	(13)
HYPERPLASIA; LYMPHOCYTE	3 (30%) [3]					2 (15%) [2]
SPLEEN	(10)	(0)	(0)	(0)	(0)	(13)
ATROPHY						1 (8%) [1]
HYPERPLASIA; LYMPHOCYTE						2 (15%) [2]
THYMUS	(10)	(0)	(0)	(0)	(0)	(13)
LYMPHOCYTE; APOPTOSIS						1 (8%) [1]
INTEGUMENTARY SYSTEM						
MAMMARY GLAND	(10)	(0)	(0)	(0)	(0)	(13)
SKIN	(10)	(0)	(0)	(0)	(0)	(13)
MUSCULOSKELETAL SYSTEM						
BONE, FEMUR	(10)	(0)	(0)	(0)	(0)	(13)
MUSCLE, THIGH	(10)	(0)	(0)	(0)	(0)	(13)

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Lab: Battelle with EPL

Species/Strain: Rat/Harlan Sprague Dawley

F1 Male: F1 Core Animals

	Treatment Groups (mg/L)					
	0	31.3	62.5	125	250	500
<b>NERVOUS SYSTEM</b>						
BRAIN	(10)	(0)	(0)	(0)	(0)	(13)
NERVE, SCIATIC	(10)	(0)	(0)	(0)	(0)	(13)
NERVE, TIBIAL	(10)	(0)	(0)	(0)	(0)	(13)
NERVE, TRIGEMINAL	(10)	(0)	(0)	(0)	(0)	(13)
SPINAL CORD, CERVICAL	(10)	(0)	(0)	(0)	(0)	(13)
SPINAL CORD, LUMBAR	(10)	(0)	(0)	(0)	(0)	(13)
SPINAL CORD, THORACIC	(10)	(0)	(0)	(0)	(0)	(13)
<b>RESPIRATORY SYSTEM</b>						
LUNG	(10)	(0)	(0)	(0)	(0)	(13)
NOSE	(10)	(0)	(0)	(0)	(0)	(13)
TRACHEA	(10)	(0)	(0)	(0)	(0)	(13)
<b>SPECIAL SENSES SYSTEM</b>						
EYE	(10)	(0)	(0)	(0)	(0)	(13)
HARDERIAN GLAND	(10)	(0)	(0)	(0)	(0)	(13)
ATROPHY		1 (10%) [1]				
INFILTRATE, CELLULAR; LYMPHOCYTE		3 (30%) [3]				3 (23%) [2]
<b>URINARY SYSTEM</b>						
KIDNEY	(10)	(10)	(10)	(10)	(10)	(13)
UROTHELIUM; ANGIECTASIS		1 (10%) [1]				
CHRONIC PROGRESSIVE NEPHROPATHY	10 (100%) [10]	10 (100%) [10]	10 (100%) [10]	10 (100%) [10]	10 (100%) [10]	12 (92%) [4]
PELVIS; DILATION			1 (10%) [1]	1 (10%) [1]		1 (8%) [1]
RENAL TUBULE; PIGMENT						1 (8%) [1]
URINARY BLADDER	(10)	(0)	(0)	(0)	(0)	(13)

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**Lab:** Battelle with EPL

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**F1 Female: F1 Core Animals**

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**Treatment Groups (mg/L)**

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**0                      31.3                      62.5                      125                      250                      500**

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**Disposition Summary**

<b>Animals Initially In Study</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>12</b>
<b>Censored</b>						
<b>Early Deaths</b>						
<b>Sacrificed, Moribund</b>						<b>2</b>
<b>Survivors</b>						
<b>Scheduled Sacrifice, Terminal</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>
<b>Number Animals Examined Microscopically</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>12</b>
<b>Total number litters</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>4</b>

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F1 Female: F1 Core Animals

	Treatment Groups (mg/L)					
	0	31.3	62.5	125	250	500
<b>ALIMENTARY SYSTEM</b>						
ESOPHAGUS	(10)	(0)	(0)	(0)	(0)	(12)
INTESTINE, LARGE, CECUM	(10)	(0)	(0)	(10)	(10)	(12)
EPITHELIUM; HYPERPLASIA						2 (17%) [2]
EPITHELIUM; NECROSIS						1 (8%) [1]
INTESTINE, LARGE, COLON	(10)	(0)	(0)	(10)	(10)	(12)
EPITHELIUM; HYPERPLASIA						2 (17%) [2]
INTESTINE, LARGE, RECTUM	(10)	(0)	(0)	(10)	(10)	(12)
EPITHELIUM; HYPERPLASIA						1 (8%) [1]
INTESTINE, SMALL, DUODENUM	(10)	(0)	(0)	(0)	(0)	(12)
INTESTINE, SMALL, ILEUM	(9)	(0)	(10)	(10)	(10)	(12)
EPITHELIUM; HYPERPLASIA				4 (40%) [4]	9 (90%) [9]	12 (100%) [4]
INTESTINE, SMALL, JEJUNUM	(10)	(0)	(0)	(10)	(10)	(12)
EPITHELIUM; HYPERPLASIA				1 (10%) [1]		6 (50%) [4]
LIVER	(10)	(0)	(0)	(0)	(0)	(12)
HEPATOCYTE; VACUOLATION						1 (8%) [1]
PANCREAS	(10)	(0)	(0)	(0)	(0)	(12)
SALIVARY GLANDS	(10)	(0)	(0)	(0)	(0)	(12)
PAROTID GLAND; BASOPHILIC FOCUS; MULTIPLE						1 (8%) [1]
SUBMANDIBULAR GLAND; SECRETORY DEPLETION						1 (8%) [1]
STOMACH, FORESTOMACH	(10)	(0)	(0)	(0)	(0)	(12)
STOMACH, GLANDULAR	(10)	(0)	(0)	(10)	(10)	(12)
EPITHELIUM; ATROPHY						1 (8%) [1]
MINERAL	1 (10%) [1]				5 (50%) [5]	3 (25%) [3]
<b>CARDIOVASCULAR SYSTEM</b>						
AORTA	(10)	(0)	(0)	(0)	(0)	(12)
HEART	(10)	(0)	(0)	(0)	(0)	(12)



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Route: Dosing in Water

CAS Number: 13718-26-8

Lab: Battelle with EPL

Species/Strain: Rat/Harlan Sprague Dawley

F1 Female: F1 Core Animals

	Treatment Groups (mg/L)					
	0	31.3	62.5	125	250	500
ENDOCRINE SYSTEM						
ADRENAL GLAND	(10)	(0)	(0)	(0)	(0)	(12)
ACCESSORY ADRENOCORTICAL NODULE						1 (8%) [1]
PARATHYROID GLAND	(10)	(0)	(0)	(0)	(0)	(10)
PITUITARY GLAND	(10)	(0)	(0)	(0)	(0)	(12)
THYROID GLAND	(10)	(0)	(0)	(0)	(0)	(12)
CYST						1 (8%) [1]
GENERAL BODY SYSTEM						
No Tissues/Organs Examined						
GENITAL SYSTEM						
CERVIX	(10)	(0)	(0)	(0)	(0)	(12)
CLITORAL GLAND	(10)	(0)	(0)	(1)	(0)	(12)
DUCT; DILATION						1 (8%) [1]
INFILTRATE, CELLULAR; LYMPHOCYTE						2 (17%) [2]
INFLAMMATION; CHRONIC-ACTIVE						1 (8%) [1]
OVARY	(10)	(0)	(0)	(0)	(0)	(12)
UTERUS	(10)	(0)	(0)	(1)	(0)	(12)
ENDOMETRIUM; HYPERPLASIA; CYSTIC						1 (8%) [1]
VAGINA	(10)	(0)	(0)	(0)	(0)	(12)

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F1 Female: F1 Core Animals

	Treatment Groups (mg/L)					
	0	31.3	62.5	125	250	500
HEMATOLYMPHOID SYSTEM						
BONE MARROW	(10)	(0)	(0)	(0)	(0)	(12)
HYPOCELLULARITY						2 (17%) [2]
LYMPH NODE, MANDIBULAR	(10)	(0)	(0)	(0)	(0)	(12)
ATROPHY						2 (17%) [2]
LYMPH NODE, MESENTERIC	(10)	(0)	(0)	(0)	(0)	(11)
HYPERPLASIA; LYMPHOCYTE						2 (18%) [1]
SPLEEN	(10)	(0)	(0)	(0)	(0)	(12)
ATROPHY						2 (17%) [2]
THYMUS	(10)	(0)	(0)	(0)	(0)	(12)
ATROPHY						2 (17%) [2]
INTEGUMENTARY SYSTEM						
MAMMARY GLAND	(9)	(0)	(0)	(0)	(0)	(12)
SKIN	(10)	(0)	(0)	(0)	(0)	(12)
MUSCULOSKELETAL SYSTEM						
BONE, FEMUR	(10)	(0)	(0)	(0)	(0)	(12)
MUSCLE, THIGH	(10)	(0)	(0)	(0)	(0)	(12)
NERVOUS SYSTEM						
BRAIN	(10)	(0)	(0)	(0)	(0)	(12)
NERVE, SCIATIC	(10)	(0)	(0)	(0)	(0)	(12)
NERVE, TIBIAL	(10)	(0)	(0)	(0)	(0)	(12)
NERVE, TRIGEMINAL	(10)	(0)	(0)	(0)	(0)	(12)
SPINAL CORD, CERVICAL	(10)	(0)	(0)	(0)	(0)	(12)
SPINAL CORD, LUMBAR	(10)	(0)	(0)	(0)	(0)	(12)
SPINAL CORD, THORACIC	(10)	(0)	(0)	(0)	(0)	(12)

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F1 Female: F1 Core Animals

	Treatment Groups (mg/L)					
	0	31.3	62.5	125	250	500
RESPIRATORY SYSTEM						
LUNG	(10)	(0)	(0)	(0)	(0)	(12)
INFILTRATE, CELLULAR; HISTIOCYTE	1 (10%) [1]					
NOSE	(10)	(0)	(0)	(0)	(0)	(12)
TRACHEA	(10)	(0)	(0)	(0)	(0)	(12)
SPECIAL SENSES SYSTEM						
EYE	(10)	(0)	(0)	(0)	(0)	(12)
HARDERIAN GLAND	(10)	(0)	(0)	(0)	(0)	(12)
INFILTRATE, CELLULAR; LYMPHOCYTE	1 (10%) [1]					
URINARY SYSTEM						
KIDNEY	(10)	(10)	(10)	(10)	(10)	(12)
CHRONIC PROGRESSIVE NEPHROPATHY	5 (50%) [5]	5 (50%) [5]	3 (30%) [3]	8 (80%) [8]	4 (40%) [4]	10 (83%) [4]
METAPLASIA; OSSEOUS			1 (10%) [1]			
NEPHROBLASTOMATOSIS		1 (10%) [1]				
URINARY BLADDER	(10)	(0)	(0)	(0)	(0)	(12)

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## LEGEND

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Censored animals are animals not in one of the other disposition categories that are removed prior to the end of the study. The censored animals are included in the pathology data.

Number of animals examined given for each tissue. If none of the animals examined have the specific lesion then there is a blank for that dose group for that specific lesion.

Number of animals with observation reported with percent incidence in parentheses

Number of litters with observations shown in square brackets for F1 and F2 animals. F1 litter incidence based on the number of F0 dams; F2 litter incidence based on number of F1 dams.

**\*\* END OF REPORT \*\***