

**Study Number:** C08004-03

**Test Type:** TOX

**Route:** Dosing in Water

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

**R19: Pup Mean Body Weight Summary**

**Test Compound:** Vanadyl sulfate

**CAS Number:** 27774-13-6

**Date Report Requested:** 08/02/2021

**Time Report Requested:** 07:24:09

**Lab:** Battelle

**Study Number:**

C08004-03

**Study Gender:**

Both

**PWG Approval Date:**

See web page for date of PWG Approval

**Version:**

v1.2.8

**Stat Version:**

S

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F1 Males

Treatment Groups (mg/L)

Phase Day	0		21			41.9			83.8		
	WT (g)	N	WT (g)	% of CNTL	N	WT (g)	% of CNTL	N	WT (g)	% of CNTL	N
PND1	7.09 ± 0.21	98 (15)	7.07 ± 0.09	99.69	110 (16)	7.31 ± 0.10	103.08	107 (15)	7.00 ± 0.17	98.66	86 (15)
PND4	9.93 ± 0.26	97 (15)	10.36 ± 0.15	104.39	110 (16)	10.44 ± 0.17	105.18	107 (15)	9.99 ± 0.22	100.62	86 (15)
PND7	15.76 ± 0.50	58 (15)	16.96 ± 0.31	107.61	63 (16)	17.11 ± 0.44	108.55	60 (15)	17.09 ± 0.50	108.38	59 (15)
PND10	23.33 ± 0.56	58 (15)	24.38 ± 0.38	104.53	63 (16)	24.67 ± 0.55	105.76	60 (15)	24.32 ± 0.65	104.24	59 (15)
PND13	31.49 ± 0.53	58 (15)	32.15 ± 0.41	102.07	63 (16)	32.55 ± 0.56	103.36	60 (15)	32.24 ± 0.80	102.37	59 (15)
PND16	38.88 ± 0.59	58 (15)	39.11 ± 0.53	100.60	63 (16)	39.24 ± 0.66	100.93	60 (15)	39.05 ± 0.99	100.45	59 (15)
PND19	48.53 ± 0.90 *	57 (15)	49.61 ± 0.82	102.23	63 (16)	50.17 ± 1.02	103.37	60 (15)	49.17 ± 1.40	101.31	59 (15)
PND21	57.44 ± 0.99 **	57 (15)	59.04 ± 0.83	102.79	63 (16)	59.53 ± 1.17	103.62	60 (15)	58.61 ± 1.18	102.03	55 (14)
PND25	74.64 ± 1.21 *	57 (15)	77.25 ± 1.26	103.50	63 (16)	77.47 ± 1.32	103.80	60 (15)	76.98 ± 1.35	103.14	55 (14)
PND28	92.26 ± 1.53 **	57 (15)	94.53 ± 1.32	102.47	63 (16)	95.50 ± 1.56	103.52	60 (15)	94.40 ± 1.38	102.32	55 (14)

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F1 Males

Phase Day	Treatment Groups (mg/L)					
	168			335		
	WT (g)	% of CNTL	N	WT (g)	% of CNTL	N
PND1	7.05 ± 0.16	99.35	100 (15)	7.06 ± 0.13	99.50	96 (15)
PND4	10.15 ± 0.24	102.29	100 (15)	10.21 ± 0.19	102.84	96 (15)
PND7	16.11 ± 0.42	102.17	58 (15)	16.46 ± 0.34	104.44	60 (15)
PND10	23.70 ± 0.49	101.61	58 (15)	23.78 ± 0.48	101.93	60 (15)
PND13	31.66 ± 0.59	100.52	58 (15)	31.27 ± 0.51	99.29	60 (15)
PND16	38.27 ± 0.57	98.43	58 (15)	37.69 ± 0.59	96.94	60 (15)
PND19	47.83 ± 0.92	98.56	58 (15)	46.90 ± 0.81	96.63	60 (15)
PND21	56.37 ± 0.93	98.13	58 (15)	55.61 ± 0.93	96.81	60 (15)
PND25	73.88 ± 1.18	98.99	58 (15)	73.75 ± 1.10	98.81	60 (15)
PND28	89.32 ± 1.46	96.82	58 (15)	88.73 ± 1.21	96.18	60 (15)

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F1 Females

Treatment Groups (mg/L)

Phase Day	0		21			41.9			83.8		
	WT (g)	N	WT (g)	% of CNTL	N	WT (g)	% of CNTL	N	WT (g)	% of CNTL	N
PND1	6.52 ± 0.11	115 (15)	6.75 ± 0.11	103.52	111 (16)	6.87 ± 0.17	105.28	100 (16)	6.76 ± 0.21	103.57	98 (16)
PND4	9.24 ± 0.23	115 (15)	9.91 ± 0.19	107.20	111 (16)	9.95 ± 0.16	107.61	97 (16)	9.92 ± 0.29	107.33	97 (16)
PND7	14.42 ± 0.43	60 (15)	16.08 ± 0.35 *	111.54	64 (16)	16.30 ± 0.50 **	113.10	60 (15)	17.19 ± 0.37 **	119.24	60 (15)
PND10	21.44 ± 0.60	59 (15)	23.29 ± 0.49	108.61	64 (16)	23.59 ± 0.64 *	110.00	60 (15)	24.26 ± 0.47 **	113.15	60 (15)
PND13	29.35 ± 0.64	58 (15)	30.99 ± 0.61	105.58	64 (16)	31.25 ± 0.62	106.47	60 (15)	32.08 ± 0.68 *	109.28	60 (15)
PND16	36.49 ± 0.68	58 (15)	37.57 ± 0.73	102.97	64 (16)	37.78 ± 0.71	103.53	60 (15)	38.68 ± 0.88	106.00	60 (15)
PND19	45.47 ± 0.87 *	58 (15)	47.65 ± 1.03	104.79	64 (16)	47.49 ± 0.94	104.44	60 (15)	48.37 ± 1.06	106.36	60 (15)
PND21	53.34 ± 0.98 *	58 (15)	55.80 ± 1.06	104.60	64 (16)	56.05 ± 1.03	105.07	60 (15)	56.93 ± 0.73	106.72	56 (14)
PND25	68.06 ± 1.14	58 (15)	71.31 ± 1.36	104.78	64 (16)	71.73 ± 1.22	105.40	60 (15)	72.95 ± 0.93 *	107.18	56 (14)
PND28	82.88 ± 1.52 **	58 (15)	85.24 ± 1.45	102.85	64 (16)	86.19 ± 1.46	103.99	60 (15)	86.87 ± 0.76	104.81	56 (14)

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F1 Females

Phase Day	Treatment Groups (mg/L)					
	168			335		
	WT (g)	% of CNTL	N	WT (g)	% of CNTL	N
PND1	6.70 ± 0.14	102.72	97 (15)	6.81 ± 0.16	104.40	96 (15)
PND4	9.57 ± 0.23	103.52	97 (15)	9.79 ± 0.21	105.88	95 (15)
PND7	15.19 ± 0.43	105.39	59 (15)	15.61 ± 0.40	108.30	58 (15)
PND10	22.52 ± 0.51	105.04	59 (15)	22.56 ± 0.56	105.24	58 (15)
PND13	30.40 ± 0.61	103.55	59 (15)	29.84 ± 0.58	101.67	58 (15)
PND16	36.91 ± 0.60	101.15	59 (15)	35.94 ± 0.63	98.50	58 (15)
PND19	45.73 ± 0.91	100.56	59 (15)	44.67 ± 0.92	98.23	58 (15)
PND21	53.47 ± 0.99	100.24	59 (15)	52.27 ± 0.99	97.99	58 (15)
PND25	68.64 ± 1.13	100.85	59 (15)	68.13 ± 1.11	100.11	58 (15)
PND28	81.91 ± 1.17	98.83	59 (15)	80.18 ± 1.07	96.74	58 (15)

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F1 ALL

Treatment Groups (mg/L)

Phase Day	0		21			41.9			83.8		
	WT (g)	N	WT (g)	% of CNTL	N	WT (g)	% of CNTL	N	WT (g)	% of CNTL	N
PND1	6.77 ± 0.15	213 (15)	6.91 ± 0.08	102.05	221 (16)	7.06 ± 0.13	104.25	207 (16)	6.85 ± 0.21	101.17	184 (16)
PND4	9.57 ± 0.23	212 (15)	10.15 ± 0.15	106.04	221 (16)	10.15 ± 0.17	106.08	204 (16)	9.88 ± 0.29	103.27	183 (16)
PND7	15.08 ± 0.46	118 (15)	16.52 ± 0.30 *	109.53	127 (16)	16.70 ± 0.45 *	110.76	120 (15)	17.19 ± 0.40 **	113.98	119 (15)
PND10	22.38 ± 0.57	117 (15)	23.83 ± 0.39	106.48	127 (16)	24.13 ± 0.57	107.80	120 (15)	24.35 ± 0.51 *	108.81	119 (15)
PND13	30.43 ± 0.57	116 (15)	31.57 ± 0.46	103.74	127 (16)	31.91 ± 0.55	104.86	120 (15)	32.22 ± 0.71	105.90	119 (15)
PND16	37.67 ± 0.61	116 (15)	38.33 ± 0.57	101.75	127 (16)	38.51 ± 0.64	102.22	120 (15)	38.93 ± 0.91	103.32	119 (15)
PND19	46.97 ± 0.86 *	115 (15)	48.62 ± 0.85	103.52	127 (16)	48.84 ± 0.93	103.98	120 (15)	48.85 ± 1.18	104.00	119 (15)
PND21	55.36 ± 0.96 **	115 (15)	57.41 ± 0.86	103.70	127 (16)	57.79 ± 1.02	104.39	120 (15)	57.89 ± 0.88	104.56	111 (14)
PND25	71.32 ± 1.13 *	115 (15)	74.28 ± 1.21	104.14	127 (16)	74.60 ± 1.15	104.60	120 (15)	75.10 ± 1.03	105.29	111 (14)
PND28	87.55 ± 1.49 **	115 (15)	89.88 ± 1.25	102.66	127 (16)	90.85 ± 1.43	103.77	120 (15)	90.80 ± 0.92	103.70	111 (14)

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Phase Day	Treatment Groups (mg/L)					
	168			335		
	WT (g)	% of CNTL	N	WT (g)	% of CNTL	N
PND1	6.90 ± 0.15	101.96	197 (15)	6.96 ± 0.14	102.75	192 (15)
PND4	9.90 ± 0.23	103.45	197 (15)	10.00 ± 0.19	104.48	191 (15)
PND7	15.64 ± 0.42	103.73	117 (15)	16.05 ± 0.34	106.42	118 (15)
PND10	23.11 ± 0.49	103.25	117 (15)	23.19 ± 0.49	103.60	118 (15)
PND13	31.01 ± 0.59	101.92	117 (15)	30.59 ± 0.50	100.55	118 (15)
PND16	37.59 ± 0.56	99.77	117 (15)	36.84 ± 0.57	97.80	118 (15)
PND19	46.78 ± 0.90	99.59	117 (15)	45.82 ± 0.78	97.55	118 (15)
PND21	54.89 ± 0.94	99.16	117 (15)	53.99 ± 0.89	97.52	118 (15)
PND25	71.22 ± 1.13	99.86	117 (15)	71.02 ± 1.01	99.57	118 (15)
PND28	85.52 ± 1.30	97.68	117 (15)	84.57 ± 1.04	96.59	118 (15)

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LEGEND

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N = the number of pups (number of litters)

PND - Postnatal Day, pups pre-weaning

PND4 weights are precull if litters are culled on postnatal day 4.

Data are displayed as the means and standard errors of the litter means.

Mean and SE values for PND 1 are calculated from whole litter weights, not individual pup weights.

Pup weights are adjusted for covariate litter size for all postnatal days. Total live on PND 1 for day 1 to cull day, and number of live pups after culling for later weight days.

Statistical analysis of pup weights after PND 1 was performed using mixed effects models with litter as a random effect, and a Dunnett-Hsu adjustment for multiple pairwise comparisons.

Statistical analysis of PND 1 pup weights performed using Jonckheere (trend) and Williams or Dunnett (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  $P \leq 0.01$

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