C Number:	R88007B
Study Gender:	Both
PWG Approval Date	See web page for date of PWG Approval

F0 Male

	Treatment Groups (ppm)			
	0	**5000**	**15000**	**40000**
Disposition Summary				
Animals Initially In Study	**22**	**22**	**22**	**22**
Early Deaths				
Euthanized, moribund	**2**	**1**	**1**	
Scheduled Deaths				
Scheduled sacrifice, terminal (SD 224 - 226)	**20**	**21**	**21**	**22**
Number of Animals Examined	**22**	**22**	**22**	**22**
ALIMENTARY SYSTEM				
LIVER	(22)	(22)	(22)	(22)
MESENTERY	(0)	(0)	(1)	(1)
SALIVARY GLANDS	(1)	(0)	(0)	(0)
CARDIOVASCULAR SYSTEM				
None				
ENDOCRINE SYSTEM				
ADRENAL CORTEX	(22)	(1)	(1)	(22)
PITUITARY GLAND	(22)	(1)	(1)	(22)
THYROID GLANDS	(22)	(1)	(1)	(22)
GENERAL BODY SYSTEM				
None				

F0 Male

	Treatment Groups (ppm)			
	0	**5000**	**15000**	**40000**
GENITAL SYSTEM				
DORSAL PROSTATE	(22)	(1)	(1)	(22)
EPIDIDYMIDES	(22)	(1)	(1)	(22)
PREPUTIAL GLANDS	(5)	(5)	(4)	(8)
TESTES	(22)	(1)	(1)	(22)
VENTRAL PROSTATE	(22)	(1)	(1)	(22)
HEMATOPOIETIC SYSTEM				
SPLEEN	(22)	(1)	(1)	(22)
THYMUS	(22)	(2)	(1)	(21)
INTEGUMENTARY SYSTEM				
SKIN	(1)	(0)	(0)	(1)
NEURAL CREST TUMOR; MALIGNANT	1 (100%)			
LYMPHOID SYSTEM				
None				
MUSCULOSKELETAL SYSTEM				
DIAPHRAGM	(1)	(0)	(0)	(0)
NERVOUS SYSTEM				
None				
RESPIRATORY SYSTEM				
None				
SPECIAL SENSES SYSTEM				
None				

F0 Male

	Treatment Groups (ppm)			
	0	**5000**	**15000**	**40000**
URINARY SYSTEM				
KIDNEYS	(22)	(4)	(1)	(22)

F0 Female

	Treatment Groups (ppm)			
	0	**5000**	**15000**	**40000**
Disposition Summary				
Animals Initially In Study	**22**	**22**	**22**	**22**
Early Deaths				
Euthanized, moribund		**3**	**1**	
Unscheduled Sacrifice	**1**	**1**		
Scheduled Deaths				
Scheduled sacrifice, terminal (LD 4, SD 32 - 219)	**21**	**18**	**21**	**22**
Number of Animals Examined	**22**	**22**	**22**	**22**
ALIMENTARY SYSTEM				
LIVER	(22)	(22)	(22)	(22)
CARDIOVASCULAR SYSTEM				
None				
ENDOCRINE SYSTEM				
ADRENAL CORTEX	(22)	(4)	(1)	(22)
PITUITARY GLAND	(22)	(4)	(1)	(22)
THYROID GLANDS	(22)	(4)	(1)	(22)
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
CLITORAL GLANDS	(1)	(0)	(0)	(0)
OVARIES	(22)	(22)	(22)	(22)
UTERUS	(22)	(22)	(22)	(22)

F0 Female

	Treatment Groups (ppm)			
	0	**5000**	**15000**	**40000**
HEMATOPOIETIC SYSTEM				
SPLEEN	(22)	(4)	(1)	(22)
THYMUS	(22)	(4)	(1)	(22)
INTEGUMENTARY SYSTEM				
MAMMARY GLANDS	(2)	(3)	(1)	(1)
ADENOCARCINOMA		1 (33.3%)		
FIBROADENOMA	1 (50%)	1 (33.3%)	1 (100%)	1 (100%)
SKIN	(0)	(1)	(0)	(1)
SKIN, ABDOMINAL	(0)	(1)	(0)	(0)
LYMPHOID SYSTEM				
None				
MUSCULOSKELETAL SYSTEM				
None				
NERVOUS SYSTEM				
None				
RESPIRATORY SYSTEM				
None				
SPECIAL SENSES SYSTEM				
ZYMBALS GLANDS	(0)	(1)	(0)	(0)
ADENOMA		1 (100%)		
URINARY SYSTEM				
KIDNEYS	(22)	(22)	(22)	(22)

F1 Male : F1c NonParent Males

	Treatment Groups (ppm)			
	0	**5000**	**15000**	**40000**
Disposition Summary				
Animals Initially In Study	**45**	**34**	**46**	**45**
Early Deaths				
Euthanized, moribund	**1**			**30**
Found Dead	**1**			**9**
Scheduled Deaths				
Scheduled sacrifice, terminal (PND 90 - 92)	**43**	**34**	**46**	**6**
Number of Animals Examined	**45**	**34**	**46**	**6**
Total number litters	**16**	**12**	**18**	**5**
ALIMENTARY SYSTEM				
INTESTINE, COLON	(1)	(1)	(0)	(0)
LIVER	(45)	(34)	(46)	(6)
CARDIOVASCULAR SYSTEM				
None				
ENDOCRINE SYSTEM				
ADRENAL CORTEX	(45)	(0)	(2)	(6)
PITUITARY GLAND	(45)	(0)	(0)	(6)
GENERAL BODY SYSTEM				
None				

F1 Male : F1c NonParent Males

	Treatment Groups (ppm)			
	0	**5000**	**15000**	**40000**
GENITAL SYSTEM				
COAGULATING GLANDS	(45)	(0)	(0)	(6)
DORSAL PROSTATE	(45)	(0)	(0)	(6)
EPIDIDYMIDES	(45)	(0)	(1)	(6)
SEMINAL VESICLES	(45)	(0)	(2)	(6)
TESTES	(45)	(1)	(1)	(6)
VENTRAL PROSTATE	(45)	(0)	(1)	(6)
HEMATOPOIETIC SYSTEM				
SPLEEN	(45)	(0)	(1)	(6)
INTEGUMENTARY SYSTEM				
None				
LYMPHOID SYSTEM				
None				
MUSCULOSKELETAL SYSTEM				
DIAPHRAGM	(1)	(0)	(0)	(0)
NERVOUS SYSTEM				
None				
RESPIRATORY SYSTEM				
LUNGS	(1)	(0)	(0)	(0)
SPECIAL SENSES SYSTEM				
EYES	(1)	(0)	(0)	(0)
URINARY SYSTEM				
KIDNEYS	(45)	(4)	(4)	(6)

F1 Female : F1c NonParent Female

	Treatment Groups (ppm)			
	0	**5000**	**15000**	**40000**
Disposition Summary				
Animals Initially In Study	**40**	**35**	**41**	**34**
Early Deaths				
Euthanized, moribund	**1**			**20**
Found Dead				**14**
Scheduled Deaths				
Scheduled sacrifice, terminal (PND 90 - 92)	**39**	**35**	**41**	
Number of Animals Examined	**40**	**35**	**41**	
Total number litters	**17**	**14**	**15**	
ALIMENTARY SYSTEM				
LIVER	(40)	(35)	(41)	(0)
CARDIOVASCULAR SYSTEM				
None				
ENDOCRINE SYSTEM				
ADRENAL CORTEX	(40)	(35)	(41)	(0)
PITUITARY GLAND	(40)	(0)	(0)	(0)
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
CERVIX	(40)	(0)	(0)	(0)
CLITORAL GLANDS	(1)	(0)	(0)	(0)
OVARIES	(39)	(0)	(1)	(0)
UTERUS	(40)	(2)	(41)	(0)
VAGINA	(40)	(0)	(0)	(0)

F1 Female : F1c NonParent Female

	Treatment Groups (ppm)			
	0	**5000**	**15000**	**40000**
HEMATOPOIETIC SYSTEM				
SPLEEN	(40)	(0)	(2)	(0)
THYMUS	(39)	(35)	(41)	(0)
INTEGUMENTARY SYSTEM				
MAMMARY GLANDS	(39)	(0)	(41)	(0)
LYMPHOID SYSTEM				
None				
MUSCULOSKELETAL SYSTEM				
None				
NERVOUS SYSTEM				
None				
RESPIRATORY SYSTEM				
None				
SPECIAL SENSES SYSTEM				
None				
URINARY SYSTEM				
KIDNEYS	(40)	(1)	(2)	(0)

F1 Male : F1c Parental Males

	Treatment Groups (ppm)			
	0	**5000**	**15000**	**40000**
Disposition Summary				
Animals Initially In Study	**40**	**40**	**40**	**26**
Early Deaths				
Euthanized, moribund	**1**	**3**		
Unscheduled Sacrifice			**1**	
Scheduled Deaths				
Scheduled sacrifice, terminal (PND 207 - 213)	**39**	**37**	**39**	**26**
Number of Animals Examined	**40**	**40**	**40**	**26**
Total number litters	**19**	**14**	**18**	**7**
ALIMENTARY SYSTEM				
LIVER	(40)	(40)	(40)	(26)
SALIVARY GLANDS	(2)	(0)	(1)	(0)
CARDIOVASCULAR SYSTEM				
HEART	(0)	(2)	(0)	(0)
ENDOCRINE SYSTEM				
ADRENAL CORTEX	(40)	(3)	(1)	(26)
PITUITARY GLAND	(40)	(3)	(1)	(25)
GENERAL BODY SYSTEM				
FAT	(1)	(0)	(1)	(0)

F1 Male : F1c Parental Males

	Treatment Groups (ppm)			
	0	**5000**	**15000**	**40000**
GENITAL SYSTEM				
DORSAL PROSTATE	(40)	(3)	(1)	(26)
EPIDIDYMIDES	(40)	(3)	(1)	(26)
PREPUTIAL GLANDS	(2)	(2)	(0)	(1)
TESTES	(40)	(3)	(1)	(26)
VENTRAL PROSTATE	(40)	(3)	(1)	(26)
HEMATOPOIETIC SYSTEM				
LYMPH NODE	(1)	(0)	(0)	(0)
SPLEEN	(40)	(3)	(1)	(26)
THYMUS	(40)	(3)	(1)	(26)
INTEGUMENTARY SYSTEM				
SKIN	(0)	(1)	(1)	(0)
LYMPHOID SYSTEM				
None				
MUSCULOSKELETAL SYSTEM				
None				
NERVOUS SYSTEM				
BRAIN, FOREBRAIN	(1)	(0)	(0)	(0)
SCHWANNOMA; MALIGNANT	1 (100%) [1]			
RESPIRATORY SYSTEM				
LUNGS	(1)	(0)	(0)	(0)
SPECIAL SENSES SYSTEM				
None				

F1 Male : F1c Parental Males

	Treatment Groups (ppm)			
	0	**5000**	**15000**	**40000**
URINARY SYSTEM				
KIDNEYS	(40)	(6)	(2)	(26)

F1 Female : F1c Parental Females

	Treatment Groups (ppm)			
	0	**5000**	**15000**	**40000**
Disposition Summary				
Animals Initially In Study	**40**	**40**	**40**	**26**
Early Deaths				
Euthanized, moribund	**1**	**2**	**2**	
Found Dead			**1**	
Unscheduled Sacrifice	**2**		**2**	
Scheduled Deaths				
Scheduled sacrifice, terminal (LD 21, PND 227 - 236)	**37**	**38**	**35**	**26**
Number of Animals Examined	**40**	**40**	**40**	**26**
Total number litters	**20**	**14**	**18**	**8**
ALIMENTARY SYSTEM				
LIVER	(40)	(40)	(40)	(26)
MESENTERY	(0)	(0)	(2)	(0)
CARDIOVASCULAR SYSTEM				
None				
ENDOCRINE SYSTEM				
ADRENAL CORTEX	(40)	(40)	(40)	(26)
PITUITARY GLAND	(40)	(2)	(5)	(26)
THYROID GLANDS	(40)	(2)	(5)	(25)
GENERAL BODY SYSTEM				
FAT	(0)	(1)	(0)	(0)

F1 Female : F1c Parental Females

	Treatment Groups (ppm)			
	0	**5000**	**15000**	**40000**
GENITAL SYSTEM				
CERVIX	(40)	(2)	(5)	(26)
CLITORAL GLANDS	(1)	(1)	(1)	(2)
OVARIES	(40)	(3)	(5)	(26)
UTERUS	(40)	(3)	(6)	(26)
VAGINA	(40)	(2)	(5)	(26)
HEMATOPOIETIC SYSTEM				
SPLEEN	(40)	(2)	(5)	(26)
THYMUS	(40)	(40)	(39)	(26)
INTEGUMENTARY SYSTEM				
MAMMARY GLANDS	(40)	(3)	(4)	(26)
ADENOCARCINOMA		2 (66.7%) [2]	1 (25%) [1]	
FIBROADENOMA			2 (50%) [2]	
SKIN	(0)	(1)	(0)	(1)
LYMPHOID SYSTEM				
None				
MUSCULOSKELETAL SYSTEM				
LIMB	(1)	(0)	(0)	(0)
NOT OTHERWISE SPECIFIED; SARCOMA	1 (100%) [1]			
PAW	(1)	(0)	(0)	(0)
SARCOMA	1 (100%) [1]			
NERVOUS SYSTEM				
None				

F1 Female : F1c Parental Females

	Treatment Groups (ppm)			
	0	**5000**	**15000**	**40000**
RESPIRATORY SYSTEM				
None				
SPECIAL SENSES SYSTEM				
None				
URINARY SYSTEM				
KIDNEYS	(40)	(3)	(6)	(26)

LEGEND

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. The exception to this is if statistical analysis is performed for a lesion and the control group has no animals with the lesion then a 0 is included for the control group on the table for that lesion.

Number of animals with observation reported with percent incidence in parentheses

Number of litters shown in square brackets for F1 and F2 animals

Trend p-values are reported only for those organs that were fully examined in the control group plus two or more other dose groups. For organs that were fully examined in just the control and one other dose group, only the pairwise p-values are reported.

Statistical analysis for the F0 animals was performed using the Poly-3 trend and pairwise statistics.

Statistical analysis for the F1 Non-parental animals was performed by Cochran-Armitage test with a Rao-Scott modification for the random effect due to litter.

Statistical analysis for the F1 Parental animals was performed by Cochran-Armitage test with a poly-3 adjustment for age and a Rao-Scott modification for the random effect due to litter.

All trend and pairwise p-values are reported as one-sided.

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 <= 0.05

** Statistically significant at P <= 0.01

Non-pregnant females from the F0 and F1 generations are included in the analysis.

** END OF REPORT **