Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC

Toxicology Data Management System Tumor Incidence for Selected Control Animal Groups Route: PERINATAL AND POSTNATAL Vehicle: FEED

Study Summary											
Laboratory Name	Study Number	Study Start Date	Length of Study in Days	Number of Animals Total and (#/Cage)	Number Surviving and (Mean Life Span)	Maximum Mean Weekly Body Weight	Chemical				
					Male						
Battelle Columbus Laboratory	059901305	05/12/05	726	50(3)	36(685)	522.7	Styrene-acrylonitrile trimer				
Female											
Battelle Columbus Laboratory	059901305	05/13/05	727	50(5)	41(699)	371.2	Styrene-acrylonitrile trimer				

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC			Toxice Tumor Incide Route	Page: 273 Report Date: 05/18/2011				
			Male		Female			
#All Organs: Benign Tumors		46/50 (92%)				42/50 (84%)		
Overall Incidence	Total	46/50 (92%)	Mean 92%	SD 0%	Total	42/50 (84%)	Mean 84%	SD 0%
#All Organs: Malignant Tumors		22/50 (44%)				19/50 (38%)		
Overall Incidence	Total	22/50 (44%)	Mean 44%	SD 0%	Total	19/50 (38%)	Mean 38%	SD 0%
#All Organs: Malignant and Benign Tumo		49/50 (98%)				44/50 (88%)		
Overall Incidence	Total	49/50 (98%)	Mean 98%	SD 0%	Total	44/50 (88%)	Mean 88%	SD 0%
#All Organs: Hemangioma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#All Organs: Hemangiosarcoma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#All Organs: Hemangiosarcoma or Hema		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%

Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC	Toxicology Data Management System Tumor Incidence for Selected Control Animal Groups Route: PERINATAL AND POSTNATAL Vehicle: FEED							Page: 274 Report Date: 05/18/2011		
				Male	Female					
#All Organs: Histiocytic Sarcoma	1/50 (2%)						0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	、 ,	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#All Organs: Leukemia: Erythrocytic		0/50	(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	. ,	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#All Organs: Leukemia: Lymphocytic, Mo	-	15/50	(30%)	ated Mean 30%	SD 0%		13/50 (26%)	Mean 26%		
	Total	15/50 (30%				Total	13/50 (26%)		SD 0%	
Overall Incidence #All Organs: Malignant Lymphoma: Histic		·····	· · · · · · · · · · · · · · · · · · ·							
#All Organs: Malignant Lymphoma: Histic Overall Incidence	ocytic, Lymį Total	ohocytic, Mixed 0/50 0/50 (0%)	, NOS, or U (0%)	Indifferentiated Ce	II Type SD 0%	Total	0/50 (0%) 0/50 (0%)			
#All Organs:	ocytic, Lymį Total	ohocytic, Mixed 0/50 0/50 (0%)	, NOS, or U (0%)	Indifferentiated Ce	II Type SD 0%	Total	0/50 (0%) 0/50 (0%)			
#All Organs: Malignant Lymphoma: Histic Overall Incidence #All Organs: Mesothelioma: Benign Overall Incidence	ocytic, Lymı Total Total	ohocytic, Mixed 0/50 0/50 (0%) 0/50 0/50 (0%)	, NOS, or U (0%) (0%)	Indifferentiated Ce Mean 0% Mean 0%	II Type SD 0% SD 0%	Total Total	0/50 (0%) 0/50 (0%) 0/50 (0%) 0/50 (0%)			
#All Organs: Malignant Lymphoma: Histic Overall Incidence #All Organs: Mesothelioma: Benign	ocytic, Lymı Total Total	ohocytic, Mixed 0/50 0/50 (0%) 0/50 0/50 (0%)	, NOS, or U (0%) (0%)	Indifferentiated Ce Mean 0% Mean 0%	II Type SD 0% SD 0%	Total Total	0/50 (0%) 0/50 (0%) 0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC	Toxicology Data Management System Tumor Incidence for Selected Control Animal Groups Route: PERINATAL AND POSTNATAL Vehicle: FEED							Page: 275 Report Date: 05/18/2011		
			Male	Female						
#All Organs: Mesothelioma: Malignant		4/50 (8%)				0/50 (0%)				
Overall Incidence	Total	4/50 (8%)	Mean 8%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#All Organs: Osteoma		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#All Organs: Osteosarcoma Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#All Organs: Osteosarcoma or Osteoma		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Adrenal Cortex: Adenoma		0/50 (0%)				1/50 (2%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
*Adrenal Cortex: Carcinoma		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC			Page: 276 Report Date: 05/18/2011					
			Male	Female				
*Adrenal Medulla: Ganglioneuroma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Adrenal Medulla: Hemangioma		0/50 (09()						
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
*Adrenal Medulla: Pheochromocytoma Benign								
Overall Incidence	Total	4/50 (8%) 4/50 (8%)	Mean 8%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
*Adrenal Medulla: Pheochromocytoma Comple		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Adrenal Medulla: Pheochromocytoma Maligna								
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%
*Adrenal Medulla: Pheochromocytoma: Benign						1/50 (2%)		
Overall Incidence	Total	4/50 (8%)	Mean 8%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%

*: Denominator is number of animals with tissues examined microscopically

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC	Toxicology Data Management System Tumor Incidence for Selected Control Animal Groups Route: PERINATAL AND POSTNATAL Vehicle: FEED								Page: 277 Report Date: 05/18/2011		
				Male			Female				
#Bone: Chordoma		0/50	(0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	(2,2)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Bone: Osteoma		0/50	(0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Bone: Osteosarcoma		0/50	(0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Bone: Osteosarcoma or Osteoma		0/50	(0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	. ,	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Brain: Astrocytoma Malignant			(0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	()	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Brain: Ependymoma Benign			(0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	. ,	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC	Toxicology Data Management System Tumor Incidence for Selected Control Animal Groups Route: PERINATAL AND POSTNATAL Vehicle: FEED							Page: 278 Report Date: 05/18/2011		
		·····		Male	Female					
*Brain: Ependymoma Malignant		0/50	(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Brain: Glioma		0/50	(0%)				1/50 (2%)			
Overall Incidence	Total	0/50 (0%)	(070)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
*Brain: Glioma Benign		0/50	(0%)		05.00	T 1	0/50 (0%)	Mara 00/	05.00	
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Brain: Glioma Malignant		0/50	(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Brain: Granular Cell Tumor Benign			(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	(2,2)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Brain: Oligodendroglioma Benign			(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	、 ,	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC			Toxic Tumor Incide Route		Page: 279 Report Date: 05/18/2011				
			Male		Female				
*Brain: Oligodendroglioma Maligna		0/50 (0%)	Maga 00/		Tetel	0/50 (0%)	Maga 00/	CD 09/	
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Brain: Oligodendroglioma, Glioma	-	0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Brain: Osteosarcoma Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Brain: Schwannoma Malignant Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
				50 0%	10tai	0/50 (0%)		50 0%	
*Clitoral/Preputial Gland: Adenoma		1/50 (2%)				3/50 (6%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	3/50 (6%)	Mean 6%	SD 0%	
*Clitoral/Preputial Gland: Carcinoma		1/50 (2%)				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
* Denominator is number of animals									

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC	Toxicology Data Management System Tumor Incidence for Selected Control Animal Groups Route: PERINATAL AND POSTNATAL Vehicle: FEED							Page: 280 Report Date: 05/18/2011		
			Male	Female						
*Clitoral/Preputial Gland: Carcinoma or Adenoma Overall Incidence	Total	2/50 (4%) 2/50 (4%)	Mean 4%	SD 0%	Total	3/50 (6%) 3/50 (6%)	Mean 6%	SD 0%		
		2/30 (478)				3/30 (078)				
*Clitoral/Preputial Gland: Sarcoma		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Ear: Neural Crest Tumor		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Esophagus: Lipoma		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Eye: Melanoma Benign		0/50 (00/)				0/50 (00/)				
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#Eye: Melanoma Malignant		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC	Toxicology Data Management System Tumor Incidence for Selected Control Animal Groups Route: PERINATAL AND POSTNATAL Vehicle: FEED							Page: 281 Report Date: 05/18/2011		
				Male		Female				
#Eye: Schwannoma Malignant		0/50	(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Harderian Gland: Adenoma		0/50	(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Harderian Gland: Carcinoma Overall Incidence	Total		(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
		· ,					. ,			
#Harderian Gland: Carcinoma or Adenoma		0/50	(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Heart: Schwannoma Benign			(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	. ,	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Heart: Schwannoma Malignant			(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC			Toxica Tumor Incide Route	Page: 282 Report Date: 05/18/2011				
			Male		Female			
#Intestine Large: Colon/Rectu Adenoma	m:							
		1/50 (2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Intestine Large: Colon/Rectu Carcinoma or Adenoma								
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
		. ,				. ,		
#Intestine Large: Colon/Rectu Hemangioma	m:							
		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Intestine Small: Duodenum: Carcinoma								
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
						0,00 (0,0)		
#Intestine Small: Duodenum: Leiomyoma								
		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Intestine Small: Duodenum: Schwannoma Malignant								
Overall Incidence	Total	0/50 (0%)	Moon 0%		Tatal	0/50 (0%)	Moon 0%	SD 09/
	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC			Page: 283 Report Date: 05/18/2011					
			Male	Female				
#Intestine Small: Ileum: Adenoma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Intestine Small: Jejunum: Carcinoma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Intestine Small: Jejunum: Granular Cell Tumor Malign		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Intestine Small: Jejunum: Leiomyoma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Intestine Small: Jejunum: Leiomyosarcoma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Intestine Small: Site Unspeci Adenoma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC			Toxica Tumor Incide Route		Page: 284 Report Date: 05/18/2011				
			Male			Female			
#Intestine Small: Site Unspeci Carcinoma	ified:								
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
						()			
#Intestine Small: Site Unspect Carcinoma or Adenoma	ified:					0/50 (00/)			
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Intestine Small: Site Unspect Granular Cell Tumor Malign									
		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Intestine Small: Site Unspeci Leiomyoma									
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
						. ,			
#Intestine Small: Site Unspeci Leiomyosarcoma	ified:								
		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Intestine Small: Site Unspeci Schwannoma Malignant									
A H H H	T	0/50 (0%)	NA 00/	OD 00/	T ()	0/50 (0%)		00.004	
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC	Toxicology Data Management System Tumor Incidence for Selected Control Animal Groups Route: PERINATAL AND POSTNATAL Vehicle: FEED							Page: 285 Report Date: 05/18/2011		
				Male	Female					
*Islets, Pancreatic: Adenoma		0/50	(0%)				1/50 (2%)			
Overall Incidence	Total	0/50 (0%)	· · ·	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
*Islets, Pancreatic: Carcinoma		0/50	(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Islets, Pancreatic: Carcinoma or Adenoma		0/50	(0%)				1/50 (2%)			
Overall Incidence	Total	0/50 (0%)	、	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
*Kidney: Pelvis and Transition Carcinoma		m:								
Overall Incidence	Total	0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Kidney: Pelvis and Transition Carcinoma or Adenoma		m:								
Overall Incidence	Total	0/50 0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Kidney: Pelvis and Transition Papilloma			(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*: Denominator is number of animals							· · · · · · · · · · · · · · · · · · ·			

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC			Page: 286 Report Date: 05/18/2011							
			Male			Female				
*Kidney: Renal Tubule: Adenoma		1/50 (2%)				0/50 (0%)				
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Kidney: Renal Tubule: Carcinoma		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Kidney: Renal Tubule: Carcinoma or Adenoma		1/50 (2%)		SD 0%	Total	0/50 (0%)	Moon 0%	SD 0%		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	50 0%		
*Kidney: Renal Tubule: Hemangiosarcoma		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Kidney: Renal Tubule: Lipoma		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Kidney: Renal Tubule: Mesenchymal Tumor Benig		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
* Denominator is number of animals	with tissues e				••••••			••••••		

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC	5		Toxice Tumor Incide Route		Page: 287 Report Date: 05/18/2011					
-			Male	······································		Female				
*Kidney: Renal Tubule: Mesenchymal Tumor Malig		0/50 (0%)				0/50 (0%)	M - 00/	25. 27		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Kidney: Renal Tubule: Nephroblastoma		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Kidney: Renal Tubule: Sarcoma		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Liver: Cholangioma		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Liver: Hemangiosarcoma		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Liver: Hepatocellular Adenoma		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*: Denominator is number of anima										

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC		Toxicology Data Management System Tumor Incidence for Selected Control Animal Groups Route: PERINATAL AND POSTNATAL Vehicle: FEED						Page: 288 Report Date: 05/18/2011		
				Male	Female					
*Liver: Hepatocellular Carcinoma		0/50	(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	. ,	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Liver: Hepatocellular Carcinoma c		stoma	(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Liver: Hepatocellular Carcinoma c Overall Incidence		lular Adenoma	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Liver: Hepatocellular Carcinoma,		ar Adenoma, or								
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Liver: Ito Cell Tumor Benign			(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	、	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Lung: Alveolar/Bronchiolar Adenc			(2%)				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)		Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC			Toxic Tumor Incide Route		Page: 289 Report Date: 05/18/2011			
			Male	Female				
*Lung: Alveolar/Bronchiolar Carcino	oma	0/50 (0%))			0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Lung: Alveolar/Bronchiolar Carcino			enoma			0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Lung: Fibrosarcoma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Lung: Hemangiosarcoma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Lung: Squamous Cell Carcinoma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Lymph Node: Hemangiosarcoma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC			Page: 290 Report Date: 05/18/2011					
			Male		Female			
#Mammary Gland: Adenolipoma								
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Mammary Gland: Adenoma								
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Mammary Gland: Carcinoma								
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	2/50 (4%) 2/50 (4%)	Mean 4%	SD 0%
#Mammary Gland: Carcinoma or Adenoma		0/50 (0%)				2/50 (4%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	2/50 (4%)	Mean 4%	SD 0%
#Mammary Gland: Fibroadenoma								
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	36/50 (72%) 36/50 (72%)	Mean 72%	SD 0%
#Mammary Gland: Fibroma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC			Toxico Tumor Incide Route		Page: 291 Report Dat	a e: 05/18/2011			
			Male		Female				
#Mammary Gland: Fibroma, Fibroadenoma or <i>i</i>	Adenoma	1/50 (2%)				36/50 (72%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	36/50 (72%)	Mean 72%	SD 0%	
#Mammary Gland: Fibroma, Fibroadenoma, Ca	rcinoma, or	Adenoma 1/50 (2%)				36/50 (72%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	36/50 (72%)	Mean 72%	SD 0%	
#Mesentery: Fibrous Histiocytoma Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
fMesentery: Hemangiosarcoma		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Mesentery: Lipoma		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Mesentery: Schwannoma Malignant		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC		Toxicology Data Management System Tumor Incidence for Selected Control Animal Groups Route: PERINATAL AND POSTNATAL Vehicle: FEED Male							Page: 292 Report Date: 05/18/2011		
									Female		
*Nose: Adenoma		0/50 ((0%)					0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	(070)	Mean	0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Nose: Squamous Cell Carcinoma		0/50 ((0%)					0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean	- / -	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Oral Cavity (Oral Mucosa, To Papilloma Squamous or Pap Overall Incidence	o ngue, Phary pilloma Total	/nx, Tooth, Gingi v 0/50 (0/50 (0%)	va): (0%)	Mean	0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Oral Cavity (Oral Mucosa, To Squamous Cell Carcinoma		/nx, Tooth, Gingiv						1/50 (2%)			
Overall Incidence	Total	0/50 (0%)	· · ·	Mean		SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
#Oral Cavity (Oral Mucosa, To Squamous Cell Carcinoma,	ongue, Phary	/nx, Tooth, Gingiv Squamous, or Pap	va):					1/50 (2%)			
Overall Incidence	Total	0/50 (0%)		Mean	0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
#Oral Mucosa: Squamous Cell Carcinoma			(0%)					1/50 (2%)			
Overall Incidence	Total	0/50 (0%)		Mean		SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
Overall Incidence *: Denominator is number of animals											

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC			Page: 293 Report Date: 05/18/2011							
			Male	Female						
#Oral Mucosa: Squamous Cell Papilloma										
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
*Ovary: Cystadenoma						0/50 (0%)				
Overall Incidence					Total	0/50 (0%)	Mean 0%	SD 0%		
*Ovary: Fibrosarcoma										
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
*Ovary: Granulosa Cell Tumor Benig	n									
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
*Ovary: Granulosa Cell Tumor Maligr										
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
*Ovary: Granulosa Cell Tumor: Benig	gn, Maligna	nt, NOS								
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
	with tissues e	kamined microscopically				. ,				

Version: May2011 Contract/Lab: All Laborator Species: RATS Strain: F 344/N Length of Study: CHRONI			Tumor Incide	ology Data Manageme once for Selected Contr : PERINATAL AND PC Vehicle: FEED	Page: 294 Report Date: 05/18/2011				
			Male		Female				
*Ovary: Granulosa-Theca Tumo	r Benian								
Overall Incidence	-				Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
'Ovary: Granulosa-Theca Tumo									
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Ovary: Schwannoma Malignant	:								
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
Ovary: Tubulostromal Adenom									
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
Pancreas: Adenoma									
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	
Pancreas: Carcinoma									
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC			Page: 295 Report Date: 05/18/2011						
			Male		Female				
*Pancreas: Carcinoma or Adenoma		1/50 (2%)				1/50 (2%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
*Pancreas: Mixed Tumor Benign		1/50 (2%)				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Pancreas: Mixed Tumor Malignant		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Parathyroid Gland: Adenoma		0/35 (0%)				0/48 (0%)			
Overall Incidence	Total	0/35 (0%)	Mean 0%	SD 0%	Total	0/48 (0%)	Mean 0%	SD 0%	
*Pituitary Gland: Pars Distalis Adenoma		fied Site:							
Overall Incidence	Total	16/50 (32%) 16/50 (32%)	Mean 32%	SD 0%	Total	22/50 (44%) 22/50 (44%)	Mean 44%	SD 0%	
*Pituitary Gland: Pars Distalis Carcinoma						0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*: Denominator is number of animals									

Version: May2011 Contract/Lab: All Laboratori Species: RATS Strain: F 344/N Length of Study: CHRONIC			Toxico Tumor Incide Route	Page: 296 Report Date: 05/18/2011				
			Male		Female			
*Pituitary Gland: Pars Dista Carcinoma or Adenoma	alis or Unspeci	fied Site: 16/50 (32%)				22/50 (44%)		
Overall Incidence	Total	16/50 (32%)	Mean 32%	SD 0%	Total	22/50 (44%)	Mean 44%	SD 0%
*Pituitary Gland: Pars Dista Ganglioneuroma		fied Site:				0/50 (00/)		
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
*Pituitary Gland: Pars Inter Adenoma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Pituitary Gland: Pars Inter Carcinoma or Adenoma Overall Incidence	media: Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
*Pituitary Gland: Pars Nerv Craniopharyngioma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Prostate: Adenoma		0/50 (0%)						
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%				

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC			Page: 297 Report Dat	Page: 297 Report Date: 05/18/2011				
			Male		Female			
*Prostate: Carcinoma or Adenoma		0/50 (0%)						
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%				
*Salivary Glands: Carcinoma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Salivary Glands: Carcinoma or Adenoma Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
*Salivary Glands: Sarcoma Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
*Salivary Glands: Schwannoma Malignant		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Seminal Vesicle: Adenoma		0/50 (0%)						
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%				

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC	Toxicology Data Management System Tumor Incidence for Selected Control Animal Groups Route: PERINATAL AND POSTNATAL Vehicle: FEED							Page: 298 Report Date: 05/18/2011		
				Male		Female				
#Skeletal Muscle: Fibrous Histiocytoma		0/50	(0)()				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Skeletal Muscle: Hemangiosarcoma		0/50	(00()				0/50 (0%)			
Overall Incidence	Total	0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Skeletal Muscle: Rhabdomyosarcoma										
Overall Incidence	Total	0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Skeletal Muscle: Rhabdomyosarcoma or Rha	Ibdomyoma	0/50	(00()				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Skin: Basal Cell Adenoma										
Overall Incidence	Total	0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Skin: Basal Cell Adenoma or Base		Tumor Benign	(00())							
Overall Incidence	Total	0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	

Version: May2011 Contract/Lab: All Laborato Species: RATS Strain: F 344/N Length of Study: CHRONI			Toxico Tumor Incide Route	Page: 299 Report Date: 05/18/2011							
			Male		Female						
#Skin: Basal Cell Adenoma, Basosquamous Tumor Benign, or Trichoepithelioma 0/50 (0%) 0/50 (0%)											
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
#Skin: Basal Cell Carcinoma		0/50 (0%)				0/50 (0%)					
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
Overall Incidence	Total	s Tumor (malignant or N 0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			
#Skin: Basal Cell Carcinoma, I NOS), or Trichoepithelio	Basal Cell Adenc	oma, Basosquamous Tur 0/50 (0%)				0/50 (0%)					
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
#Skin: Basal or Sq. Cell Carcir Adenoma, Papilloma, S	oma, Carcinoma	a, Basosq. Tumor (M or E ratoacanthoma, Trichoep 4/50 (8%)	B), Basal Cell Adeno			1/50 (2%)					
Overall Incidence	Total	4/50 (8%)	Mean 8%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%			
#Skin: Fibroma		5/50 (10%)				0/50 (0%)					
		5/50 (10%)				0/50 (0%)					

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC			Page: 300 Report Date: 05/18/2011									
			Male		Female							
#Skin: Fibroma, Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma 5/50 (10%) Overall Insidence Total 5/50 (10%) SD 0% Total 0/50 (0%) Mean 0% SD 0%												
Overall Incidence	Total	5/50 (10%)	Mean 10%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
#Skin: Fibrosarcoma		0/50 (0%)				0/50 (0%)						
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
#Skin: Fibrosarcoma, Sarcoma, M Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%				
#Skin: Fibrous Histiocytoma Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%				
		0/30 (078)		30 0%	TOLAI	0/30 (0 %)		0%				
#Skin: Hemangioma		0/50 (0%)				0/50 (0%)						
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
#Skin: Hemangiosarcoma		0/50 (0%)				0/50 (0%)						
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC	Toxicology Data Management System Tumor Incidence for Selected Control Animal Groups Route: PERINATAL AND POSTNATAL Vehicle: FEED							Page: 301 Report Date: 05/18/2011		
				Male		Female				
#Skin: Keratoacanthoma		2/50	(4%)				1/50 (2%)			
Overall Incidence	Total	2/50 (4%)	、	Mean 4%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
#Skin: Lipoma										
Overall Incidence	Total	1/50 (2%)	(2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Skin: Liposarcoma			(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	. ,	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Skin: Neural Crest Tumor Overall Incidence	Total		(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
		· · ·			30 0%		. ,		30 0%	
#Skin: Neural Crest Tumor, Maligna	ant	0/50	(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	. ,	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Skin: Neurofibroma or Schwannor										
Overall Incidence	Total	0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	

Version: May2011 Contract/Lab: All Laboratorie Species: RATS Strain: F 344/N Length of Study: CHRONIC	S		Toxic Tumor Incide Route		Page: 302 Report Date: 05/18/2011					
			Male				Female			
#Skin: Neurofibrosarcoma or Schwannoma (malignant or NOS) 0/50 (0%) 1/50 (2%) Overall Incidence Total 0/50 (0%) Mean 0% SD 0% Total 1/50 (2%)										
Overall Incidence	lotal	0/50 (0%)	Mean 0%	SD 0%	I OTAI	1/50 (2%)	Mean 2%	SD 0%		
#Skin: Neurofibrosarcoma, Neur	ofibroma, or S	chwannoma (benign, ma 0/50 (0%)	lignant or NOS)			1/50 (2%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
#Skin: Sarcoma Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#Skin: Schwannoma Benign Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#Skin: Schwannoma Malignant		0/50 (0%)				1/50 (2%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
#Skin: Squamous Cell Carcinom		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		

Version: May2011 Contract/Lab: All Laboratori Species: RATS Strain: F 344/N Length of Study: CHRONIC			Page: 303 Report Date: 05/18/2011								
			Male		Female						
#Skin: Squamous Cell Carcinoma, Basal Cell Carcinoma, Basosquamous Tumor (malignant or NOS), or Carcinoma											
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			
#Skin: Squamous Cell Papillom	a	0/50 / /2/)				0/50 (221)					
Overall Incidence	Total	2/50 (4%) 2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			
#Skin: Squamous Cell Papillom	-	2/50 (4%)	Maga 49/	CD 00/	Total	0/50 (0%)	Maar 00/	0D 0W			
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
<pre>\$\$ Skin: Squamous Cell Papillom</pre>	a, Papilloma, So	quamous Cell Carcinoma 4/50 (8%)	a or Keratoacanthor	na		1/50 (2%)					
Overall Incidence	Total	4/50 (8%)	Mean 8%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%			
#Skin: Squamous Cell Papillom						1/50 (2%)					
Overall Incidence	Total	4/50 (8%)	Mean 8%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%			
#Skin: Trichoepithelioma											
•		0/50 (0%)				0/50 (0%)					

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC				Page: 304 Report Date: 05/18/2011				
			Male			Female		
#Skin: Sebaceous Gland: Adenoma		0/50 (09()				4/50 (00/)		
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%
#Skin: Sebaceous Gland: Carcinoma or Adenoma		0/50 (0%)				1/50 (2%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
#Spinal Cord: Astrocytoma Benign		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Spinal Cord: Astrocytoma Malignant		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Spinal Cord: Glioma Malignant		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Spleen: Fibrosarcoma		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*: Denominator is number of animals	with tissues e							

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC	Toxicology Data Management System Tumor Incidence for Selected Control Animal Groups Route: PERINATAL AND POSTNATAL Vehicle: FEED						Page: 305 Report Date: 05/18/2011		
			Male			Female			
*Spleen: Fibrous Histiocytoma		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Spleen: Hemangiosarcoma		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Spleen: Leiomyosarcoma		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Spleen: Sarcoma		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Stomach, Forestomach: Leiomyosarcoma		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Stomach, Forestomach: Squamous Cell Carcinoma		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	

		Tumor Incide Route		Page: 306 Report Date: 05/18/2011			
		Male			Female		
or Papilloma	0/50 (0%)				0/50 (0%)		
	. ,	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
					0/50 (0%)		
Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
	0/50 (0%)				0/50 (0%)		
	. ,	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
	0/50 (0%)				0/50 (0%)		
Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
	0/50 (0%)				0/50 (0%)		
Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
	0/50 (0%)				0/50 (0%)		
Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
	Total Total Total Total Total	Total $0/50$ (0%) $0/50$ (0%) Total $0/50$ (0%)	Male or Papilloma Squamous 0/50 (0%) Total 0/50 (0%) Mean 0% Total 0/50 (0%) Mean 0%	Vehicle: FEED Male Or Papilloma Squamous 0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% SD 0%	Male or Papilloma Squamous 0/50 (0%) Mean 0% SD 0% Total 1 0/50 (0%) Mean 0% SD 0% Total	Vehicle: FEED Male or Papilloma Squamous 0/50 (0%) 0/50 (0%) 0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%)	Vehicle: FEED Male Female or Papilloma Squamous 0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) 0/50 (0%) Mean 0% Total 0/50 (0%) 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) 0/50 (0%) Mean 0% Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0%

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC	Toxicology Data Management System Tumor Incidence for Selected Control Animal Groups Route: PERINATAL AND POSTNATAL Vehicle: FEED							Page: 307 Report Date: 05/18/2011		
			Male				Female			
*Testes: Adenoma		41/50 (82%)								
Overall Incidence	Total	41/50 (82%)	Mean 82%	SD 0%						
*Testes: Hemangioma		0/50 (0%)								
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%						
*Thymus: Thymoma Benign Overall Incidence	Total	1/48 (2%) 1/48 (2.08%)	Mean 2.08%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
*Thymus: Thymoma Malignant		1/48 (2%)				1/50 (2%)				
Overall Incidence	Total	1/48 (2.08%)	Mean 2.08%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
*Thymus: Thymoma NOS		0/48 (0%)				0/50 (0%)				
Overall Incidence	Total	0/48 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Thymus: Thymoma: Benign, Maligna		2/48 (4%)				1/50 (2%)				
Overall Incidence	Total	2/48 (4.17%)	Mean 4.17%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC			Tumor Incide	ology Data Manageme ence for Selected Contr : PERINATAL AND PC Vehicle: FEED	rol Animal Groups		Page: 308 Report Date: 05/18/2011			
			Male				Female			
*Thyroid Gland: C-Cell: Adenoma		12/50 (24%)				6/50 (12%)				
Overall Incidence	Total	12/50 (24%)	Mean 24%	SD 0%	Total	6/50 (12%)	Mean 12%	SD 0%		
*Thyroid Gland: C-Cell: Carcinoma		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Thyroid Gland: C-Cell: Carcinoma or Adenoma		12/50 (24%)				6/50 (12%)				
Overall Incidence	Total	12/50 (24%)	Mean 24%	SD 0%	Total	6/50 (12%)	Mean 12%	SD 0%		
*Thyroid Gland: Follicular Cell Adenoma		1/50 (2%)				1/50 (2%)				
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
*Thyroid Gland: Follicular Cell Carcinoma										
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
*Thyroid Gland: Follicular Cell Carcinoma or Adenoma		1/50 (2%)				1/50 (2%)				
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		

*: Denominator is number of animals with tissues examined microscopically #: Denominator is number of animals necropsied

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC				Tumor Incide	blogy Data Manageme ence for Selected Contr PERINATAL AND PC Vehicle: FEED	ol Animal Groups		Page: 309 Report Date: 05/18/2011			
				Male		Female					
#Tissue NOS: Paraganglioma		0/50	(0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Tongue: Squamous Cell Carcinoma			(0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Tongue: Squamous Cell Carcinoma o Overall Incidence	o r Papillom a Total	a Squamous 0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#Tongue: Squamous Cell Papilloma			(0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Tooth: Adamantinoma Malignant			(0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Tooth: Odontoma		0/50	(0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC			Tumor Incide	Diogy Data Manageme ence for Selected Contr PERINATAL AND PC Vehicle: FEED	ol Animal Groups	Page: 310 Report Date: 05/18/2011			
			Male				Female		
*Urinary Bladder: Carcinoma		1/50 (2%)				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Urinary Bladder: Carcinoma or Papilloma		1/50 (2%)				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Urinary Bladder: Hemangiosarcoma Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Urinary Bladder: Papilloma		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Uterus: Adenoma						0/50 (0%)			
Overall Incidence					Total	0/50 (0%)	Mean 0%	SD 0%	
#Uterus: Carcinoma									
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC	Toxicology Data Management System Tumor Incidence for Selected Control Animal Group Route: PERINATAL AND POSTNATAL Vehicle: FEED	or Incidence for Selected Control Animal Groups Repo Route: PERINATAL AND POSTNATAL				
	Male		Female			
#Uterus: Deciduoma Benign						
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#Uterus: Leiomyosarcoma		0/60 /02/\				
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#Uterus: Polyp Stromal						
Overall Incidence	Total	6/50 (12%) 6/50 (12%)	Mean 12%	SD 0%		
eUterus: Sarcoma		0/50 (0%)				
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
EUterus: Sarcoma Stromal						
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
fUterus: Sarcoma Stromal or Polyp Stromal						
		6/50 (12%)				
Overall Incidence	Total	6/50 (12%)	Mean 12%	SD 0%		

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N			Toxico Tumor Incide Route	Page: 312 Report Date: 05/18/2011				
Length of Study: CHRONIC			Male				Female	
#Uterus: Schwannoma Malignant								
Overall Incidence					Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%
#Vagina: Polyp								
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Vagina: Sarcoma								
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Vagina: Schwannoma Malignant								
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Zymbal's Gland: Adenoma								
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Zymbal's Gland: Carcinoma								
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%

Version: May2011 Contract/Lab: All Laboratories Species: RATS Strain: F 344/N Length of Study: CHRONIC			Tumor Incide	blogy Data Manageme ence for Selected Cont : PERINATAL AND PO Vehicle: FEED	ol Animal Groups	Groups Report Date: 05/18/20			
			Male				Female		
#Zymbal's Gland: Carcinoma or Adenoma		1/50 (2%)				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	