TDMS No. 20304 - 01 Test Type: CHRONIC Route: GAVAGE P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

TEF evaluation (PCB 118) **CAS Number:** 31508-00-6

C_T_nostop

Date Report Requested: 07/15/2008 Time Report Requested: 10:22:40 First Dose M/F: NA / 03/26/04

Lab: BAT

Species/Strain: RATS/SD

C Number: C20304

Lock Date: 10/12/2006

Cage Range: ALL

Date Range: ALL

Reasons For Removal: 25022 ACCK 25021 TSAC 25020 NATD

25019 MSAC 25018 DACC

Removal Date Range: ALL

Treatment Groups: Include 001 0 UG/KG Include 002 10 UG/KG Include 003 30 UG/KG

Include 004 100 UG/KG Include 005 220 UG/KG Include 006 460 UG/KG

Include 007 1000 UG/KG Include 008 4600 UG/KG

Study Gender: Female

TDMSE Version: 2.0.0

TEF evaluation (PCB 118)

CAS Number: 31508-00-6

Date Report Requested: 07/15/2008 Time Report Requested: 10:22:40 First Dose M/F: NA / 03/26/04

Lab: BAT

SPRAGUE-DAWLEY RATS FEMALE	0 UG/KG	10 UG/KG	30 UG/KG	100 UG/KG	220 UG/KG	460 UG/K0
Disposition Summary						
Animals Initially in Study Early Deaths	80	30	30	80	80	80
Dosing Accident Moribund Sacrifice Natural Death	27 4	2		1 22 9	22 5	17 5
Survivors Terminal Sacrifice Animals Examined Microscopically	21 52	2		20 52	25 52	30 52
LIMENTARY SYSTEM						
Esophagus Ulcer Muscularis, Degeneration	(51)	(2)	(0)	(52)	(52)	(52) 1 (2%)
Muscularis, Degeneration Muscularis, Inflammation Intestine Large, Cecum Degeneration, Fatty	(52)	(2)	(0)	3 (6%) (51)	(51)	1 (2%) (52)
Inflammation Ulcer					1 (2%) 1 (2%)	1 (2%)
Artery, Inflammation, Chronic Active Intestine Large, Colon Parasite Metazoan	(52) 1 (2%)	(2)	(0)	(52)	(52)	1 (2%) (52)
Artery, Inflammation, Chronic Active Intestine Large, Rectum Inflammation	(52)	(2)	(0)	(52) 1 (2%)	(52)	1 (2%) (52)
Parasite Metazoan Artery, Inflammation, Chronic Active Intestine Small, Duodenum	2 (4%) 1 (2%) (52)	(2)	(0)	2 (4%) (52)	3 (6%) (52)	2 (4%) 2 (4%) (52)
Inflammation Ulcer Intestine Small, Ileum	(52)	(2)	(0)	(51)	(50)	(52)
Artery, Inflammation, Chronic Active Intestine Small, Jejunum Inflammation, Chronic Active	(52)	(2)	(0)	(52)	(50)	(52)
Artery, Inflammation, Chronic Active Liver Angiectasis	(52)	(2)	(0)	(51) 1 (2%)	(52) 1 (2%)	(52) 2 (4%)
Basophilic Focus Basophilic Focus, Multiple Cholangiofibrosis	11 (21%) 4 (8%)			5 (10%) 2 (4%) 2 (4%)	8 (15%) 3 (6%) 2 (4%)	4 (8%) 2 (4%) 3 (6%)
Clear Cell Focus	6 (12%)			3 (6%)	4 (8%)	5 (10%)

TDMS No. 20304 - 01 Test Type: CHRONIC

Species/Strain: RATS/SD

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONICTEF evaluation (PCB 118)Route: GAVAGECAS Number: 31508-00-6

Species/Strain: RATS/SD

TDMS No. 20304 - 01

Date Report Requested: 07/15/2008 Time Report Requested: 10:22:40 First Dose M/F: NA / 03/26/04

SPRAGUE-DAWLEY RATS FEMALE	0 UG/KG	10 UG/KG	30 UG/KG	100 UG/KG	220 UG/KG	460 UG/KG
Clear Cell Focus, Multiple	9 (17%)			7 (14%)	3 (6%)	9 (17%)
Degeneration, Cystic	1 (2%)			(,	1 (2%)	- ()
Eosinophilic Focus	5 (10%)			5 (10%)	4 (8%)	4 (8%)
Eosinophilic Focus, Multiple	3 (1373)			3 (6%)	5 (10%)	11 (21%)
Fatty Change, Focal	2 (4%)			1 (2%)	6 (12%)	4 (8%)
Fatty Change, Diffuse	1 (2%)			2 (4%)	1 (2%)	9 (17%)
Hematopoietic Cell Proliferation	19 (37%)			20 (39%)	21 (40%)	28 (54%)
Hepatodiaphragmatic Nodule	(0. 70)			1 (2%)	2 (4%)	1 (2%)
Hyperplasia, Nodular				. (= /3)	= (173)	. (=70)
Inflammation	21 (40%)			30 (59%)	35 (67%)	36 (69%)
Mixed Cell Focus	6 (12%)			5 (10%)	7 (13%)	6 (12%)
Mixed Cell Focus, Multiple	15 (29%)			14 (27%)	22 (42%)	30 (58%)
Necrosis	1 (2%)			2 (4%)	1 (2%)	2 (4%)
Pigmentation	1 (2%)			5 (10%)	12 (23%)	41 (79%)
Toxic Hepatopathy	1 (270)			3 (1078)	3 (6%)	14 (27%)
Bile Duct, Cyst	2 (4%)			3 (6%)	5 (10%)	6 (12%)
Bile Duct, Gyst Bile Duct, Fibrosis	2 (4%)			1 (2%)	3 (10%)	3 (6%)
Bile Duct, Hyperplasia	2 (4%) 5 (10%)			6 (12%)	7 (13%)	8 (15%)
Capsule, Inflammation	1 (2%)			0 (12%)	7 (13%)	0 (13%)
	1 (2%)			2 (40/)	4 (8%)	3 (6%)
Centrilobular, Degeneration Hepatocyte, Hypertrophy	1 (2%)			2 (4%)		20 (38%)
				12 (24%)	15 (29%) 3 (6%)	
Hepatocyte, Multinucleated				1 (2%)	3 (0%)	21 (40%)
Oval Cell, Hyperplasia	(0)	(0)	(0)	12 (24%)	9 (17%)	29 (56%)
Mesentery	(2)	(0)	(0)	(1)	(3)	(3)
Hemorrhage	4 (500()					1 (33%)
Artery, Inflammation, Chronic Active	1 (50%)					2 (67%)
Artery, Thrombosis						
Fat, Necrosis	(4)	(0)	(0)	(0)	(4)	(4)
Oral Mucosa	(1)	(0)	(0)	(0)	(1)	(1)
Gingival, Cyst						4 (4000()
Gingival, Hyperplasia, Squamous	(50)	(0)	(0)	(50)	(50)	1 (100%)
Pancreas	(52)	(2)	(0)	(52)	(52)	(52)
Degeneration	1 (2%)			4 (00)	2 (124)	5 (101)
Inflammation, Chronic Active				1 (2%)	2 (4%)	2 (4%)
Acinus, Atrophy, Focal	4 (8%)			2 (4%)	3 (6%)	4 (8%)
Acinus, Atrophy, Diffuse						
Acinus, Hyperplasia				2 (4%)		
Acinus, Vacuolization Cytoplasmic						
Artery, Inflammation, Chronic Active	1 (2%)			2 (4%)	1 (2%)	7 (13%)
Duct, Dilatation						
Duct, Inflammation						
Duct, Necrosis						
Salivary Glands	(51)	(2)	(0)	(51)	(52)	(51)
Degeneration						
Stomach, Forestomach	(52)	(2)	(0)	(52)	(52)	(52)
Hyperplasia, Squamous				3 (6%)		

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC TEF evaluation (PCB 118)
Route: GAVAGE CAS Number: 31508-00-6

TDMS No. 20304 - 01

Species/Strain: RATS/SD

Time Report Requested: 10:22:40 First Dose M/F: NA / 03/26/04

Date Report Requested: 07/15/2008

SPRAGUE-DAWLEY RATS FEMALE	0 UG/KG	10 UG/KG	30 UG/KG	100 UG/KG	220 UG/KG	460 UG/KG
Inflammation Ulcer	2 (4%) 2 (4%)			1 (2%)		
Artery, Inflammation, Chronic Active Stomach, Glandular	(52)	(2)	(0)	(52)	(52)	(52)
Cyst Erosion Mineralization	1 (2%)			1 (2%)		1 (2%)
Artery, Inflammation, Chronic Active Artery, Mineralization Glands, Cyst				1 (2%)	1 (2%)	
Tooth Peridontal Tissue, Inflammation	(10) 7 (70%)	(0)	(0)	(5) 5 (100%)	(5) 5 (100%)	(5) 5 (100%)
CARDIOVASCULAR SYSTEM						
Blood Vessel Aorta, Mineralization	(52)	(2)	(0)	(52) 1 (2%)	(52)	(52)
Heart Cardiomyopathy	(52) 13 (25%)	(2)	(0)	(52) 19 (37%)	(52) 14 (27%)	(52) 16 (31%)
Inflammation Artery, Inflammation, Chronic Active	13 (2370)			19 (37 /0)	14 (27 70)	10 (31 %)
Artery, Mineralization Coronary Artery, Thrombosis Endocardium, Hyperplasia Endocardium, Infiltration Cellular				1 (2%) 1 (2%) 1 (2%) 1 (2%)	1 (2%)	1 (2%)
Epicardium, Fibrosis Epicardium, Inflammation				1 (2%)		
Myocardium, Mineralization				1 (2%)		
ENDOCRINE SYSTEM						
Adrenal Cortex Angiectasis	(52)	(2)	(0)	(52)	(52)	(51) 1 (2%) 2 (4%)
Atrophy Degeneration, Cystic	1 (2%) 9 (17%)			8 (15%)	9 (17%)	2 (4%) 12 (24%)
Hematopoietic Cell Proliferation Hyperplasia Hypertrophy Inflammation	1 (2%) 14 (27%) 37 (71%)			18 (35%) 37 (71%)	13 (25%) 39 (75%) 1 (2%)	16 (31%) 43 (84%)
Necrosis Vacuolization Cytoplasmic	10 (19%)			1 (2%) 12 (23%)	2 (4%) 13 (25%)	12 (24%)
Adrenal Medulla Hyperplasia	(52) 11 (21%)	(2)	(0)	(52) 12 (23%)	(52) 14 (27%)	(52) 16 (31%)
Necrosis	11 (2170)			12 (23%)	14 (2170)	10 (31%)

a - Number of animals examined microscopically at site and number of animals with lesion

TEF evaluation (PCB 118)
CAS Number: 31508-00-6

Date Report Requested: 07/15/2008 Time Report Requested: 10:22:40 First Dose M/F: NA / 03/26/04

Lab: BAT

SPRAGUE-DAWLEY RATS FEMALE	0 UG/KG	10 UG/KG	30 UG/KG	100 UG/KG	220 UG/KG	460 UG/KG
Islets, Pancreatic Hyperplasia	(52)	(2)	(0)	(52) 1 (2%)	(52)	(52)
Parathyroid Gland Hyperplasia	(47)	(2)	(0)	(46) ´ 1 (2%)	(47)	(50)
Pituitary Gland Angiectasis Cyst	(52) 1 (2%)	(2)	(0)	(52) 1 (2%) 1 (2%)	(52)	(52)
Pars Distalis, Cyst Pars Distalis, Hyperplasia	10 (19%)			6 (12%)	13 (25%)	13 (25%)
Thyroid Gland Infiltration Cellular, Lymphocyte	(51)	(2)	(0)	(51)	(51)	(51)
Inflammation C-cell, Hyperplasia	1 (2%) 10 (20%)			14 (27%)	10 (20%)	6 (12%)
Follicular Cell, Hyperplasia Follicular Cell, Hypertrophy	6 (12%)			7 (14%)	13 (25%)	18 (35%)

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

TDMS No. 20304 - 01 Test Type: CHRONIC

Species/Strain: RATS/SD

OLIVITALOTOTLIVI						
Clitoral Gland	(52)	(2)	(0)	(52)	(51)	(52)
Hyperplasia, Squamous Inflammation	41 (79%)	1 (50%)		38 (73%)	1 (2%) 39 (76%)	40 (77%)
Duct Cyst	26 (50%)	` ,		39 (75%)	31 (61%)	35 (67%)

imammation	41 (7370)	1 (0070)		00 (1070)	00 (1070)	70 (1170)
Duct, Cyst	26 (50%)			39 (75%)	31 (61%)	35 (67%)
Ovary	(52)	(2)	(0)	(52)	(52)	(52)
Cyst	8 (15%)			10 (19%)	13 (25%)	14 (27%)
Fibrosis						1 (2%)
Inflammation						2 (4%)
Pigmentation						1 (2%)
Bilateral, Cyst					1 (2%)	
Uterus	(52)	(2)	(0)	(52)	(52)	(52)
Adenomyosis						1 (2%)
Cyst					1 (2%)	1 (2%)
Hemorrhage						
Inflammation	4 (8%)			6 (12%)	6 (12%)	8 (15%)
Metaplasia, Squamous	29 (56%)			26 (50%)	27 (52%)	34 (65%)
Thrombosis	1 (2%)					2 (4%)
Ulcer						
Artery, Inflammation, Chronic Active						1 (2%)
Cervix, Cyst						
Endometrium, Hyperplasia, Cystic	28 (54%)			27 (52%)	22 (42%)	23 (44%)
Epithelium, Hyperplasia	, ,			, ,	• •	, ,

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC Route: GAVAGE

TDMS No. 20304 - 01

Species/Strain: RATS/SD

TEF evaluation (PCB 118)

CAS Number: 31508-00-6

Date Report Requested: 07/15/2008 Time Report Requested: 10:22:40 First Dose M/F: NA / 03/26/04

SPRAGUE-DAWLEY RATS FEMALE	0 UG/KG	10 UG/KG	30 UG/KG	100 UG/KG	220 UG/KG	460 UG/K
Vagina	(7)	(0)	(0)	(0)	(0)	(1)
EMATOPOIETIC SYSTEM						
Bone Marrow	(52)	(2)	(0)	(52)	(52)	(52)
Atrophy	4 (8%)			1 (2%)	1 (2%)	
Hyperplasia	31 (60%)	2 (100%)		30 (58%)	30 (58%)	32 (62%)
Myelofibrosis					1 (2%)	
Necrosis	4-3	(-)	(-)	453	4.1	
Lymph Node	(0)	(0)	(0)	(2)	(1)	(1)
Bronchial, Ectasia						
Bronchial, Hemorrhage						
Mediastinal, Hemorrhage	4-11	(-)	(-)	1 (50%)	/ >	
Lymph Node, Mandibular	(51)	(2)	(0)	(51)	(52)	(51)
Atrophy					. (55()	. (201)
Hyperplasia, Lymphoid	2.4.4=24)	. (===:)		0.4.40=04)	1 (2%)	1 (2%)
Hyperplasia, Plasma Cell	24 (47%)	1 (50%)	(0)	34 (67%)	36 (69%)	33 (65%)
Lymph Node, Mesenteric	(52)	(2)	(0)	(51)	(52)	(52)
Atrophy	1 (2%)			1 (2%)		
Ectasia						
Hemorrhage	4 (00()					
Hyperplasia, Plasma Cell	1 (2%)	(0)	(0)	(50)	(50)	(50)
Spleen Hematopoietic Cell Proliferation	(52) 42 (81%)	(2)	(0)	(52) 39 (75%)	(52) 39 (75%)	(52)
	42 (81%) 1 (2%)			39 (75%)	39 (75%)	39 (75%)
Hemorrhage Necrosis	1 (2%)					4 (20/)
Pigmentation	39 (75%)			35 (67%)	31 (60%)	1 (2%) 36 (69%)
Capsule, Hemorrhage	39 (75%)			33 (67 %)	31 (60%)	1 (2%)
Lymphoid Follicle, Atrophy	3 (6%)			4 (8%)	2 (4%)	2 (4%)
Red Pulp, Atrophy	3 (0 %)			2 (4%)	2 (4%)	1 (2%)
Thymus	(51)	(2)	(0)	(51)	(51)	(50)
Atrophy	41 (80%)	(2)	(0)	38 (75%)	44 (86%)	44 (88%
Cyst	41 (6070)			2 (4%)	1 (2%)	44 (0070
Hemorrhage		1 (50%)		1 (2%)	1 (2%)	
Inflammation		1 (0070)		1 (2%)	1 (270)	
Artery, Inflammation, Chronic Active				1 (270)		
TEGUMENTARY SYSTEM						
Mammary Gland	(52)	(2)	(0)	(51)	(52)	(52)
Cyst	1 (2%)	ν-/	ν-/	2 (4%)	ζ/	2 (4%)
Hyperplasia	4 (8%)			5 (10%)	4 (8%)	5 (10%)
Inflammation, Granulomatous	(,			· /	2 (4%)	1 (2%)
Inflammation, Chronic Active				1 (2%)	` ,	,,

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Test Type: CHRONIC
Route: GAVAGE

TDMS No. 20304 - 01

Species/Strain: RATS/SD

TEF evaluation (PCB 118)

CAS Number: 31508-00-6

Date Report Requested: 07/15/2008 Time Report Requested: 10:22:40 First Dose M/F: NA / 03/26/04

SPRAGUE-DAWLEY RATS FEMALE	0 UG/KG	10 UG/KG	30 UG/KG	100 UG/KG	220 UG/KG	460 UG/KG
Skin	(52)	(2)	(0)	(51)	(52)	(52)
Cyst Epithelial Inclusion Hyperkeratosis Hyperplasia, Squamous Inflammation				1 (2%) 2 (4%) 3 (6%)	1 (2%)	1 (2%)
MUSCULOSKELETAL SYSTEM						
Skeletal Muscle	(0)	(0)	(0)	(1)	(0)	(0)
IERVOUS SYSTEM						
Brain Angiectasis	(52)	(2)	(0)	(52)	(52) 1 (2%)	(52)
Gliosis	1 (2%)				1 (270)	1 (2%)
Hemorrhage Hydrocephalus	3 (6%) 1 (2%)			2 (4%)	1 (2%)	1 (2%)
Necrosis Vacuolization Cytoplasmic	2 (4%)			1 (2%)	,	
Meninges, Inflammation						1 (2%)
Spinal Cord Nerve, Degeneration	(0)	(0)	(0)	(0)	(1)	(0)
RESPIRATORY SYSTEM						
Lung Congestion	(51)	(2)	(0)	(52)	(52)	(52)
Hemorrhage Inflammation	5 (10%)			3 (6%)	5 (10%)	1 (2%) 3 (6%)
Metaplasia, Squamous Pigmentation	1 (2%)				1 (2%)	1 (2%)
Proteinosis Alveolar Epithelium, Hyperplasia	1 (2%) 4 (8%)			2 (4%)	,	
Alveolar Epithelium, Metaplasia, Bronchiolar Alveolus, Infiltration Cellular, Histiocyte	6 (12%) 36 (71%)			7 (13%) 35 (67%)	14 (27%) 37 (71%)	18 (35%) 39 (75%)
Artery, Mediastinum, Inflammation, Chronic Active						
Serosa, Inflammation Nose	(52)	(2)	(0)	1 (2%) (52)	(52)	(52)
Cyst Inflammation	1 (2%)	. ,	` '			
Nasolacrimal Duct, Inflammation, Suppurative	1 (2%)			5 (10%)	5 (10%)	3 (6%)
Olfactory Epithelium, Degeneration	1 (2%)			1 (2%)		

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Test Type: CHRONIC
Route: GAVAGE

TDMS No. 20304 - 01

Species/Strain: RATS/SD

TEF evaluation (PCB 118) **CAS Number:** 31508-00-6

Date Report Requested: 07/15/2008 Time Report Requested: 10:22:40 First Dose M/F: NA / 03/26/04

SPRAGUE-DAWLEY RATS FEMALE	0 UG/KG	10 UG/KG	30 UG/KG	100 UG/KG	220 UG/KG	460 UG/KG
Olfactory Epithelium, Metaplasia						
Respiratory Epithelium, Degeneration, Focal Respiratory Epithelium, Hyperplasia Respiratory Epithelium, Necrosis	1 (2%) 5 (10%)			5 (10%)	7 (13%)	7 (13%) 1 (2%)
Trachea Inflammation	(51)	(2)	(0)	(52)	(52)	(52)
PECIAL SENSES SYSTEM						
Eye Cornea, Inflammation	(52) 1 (2%)	(2)	(0)	(52) 1 (2%)	(52) 1 (2%)	(52) 1 (2%)
Retina, Atrophy Harderian Gland	1 (2%) (52)	(2)	(0)	(52)	(52)	(52)
Hyperplasia Infiltration Cellular, Mononuclear Cell Vacuolization Cytoplasmic	7 (13%)			1 (2%) 10 (19%)	2 (4%) 3 (6%)	10 (19%)
RINARY SYSTEM						
Kidney Accumulation, Hyaline Droplet	(52) 1 (2%)	(2)	(0)	(52)	(52) 1 (2%)	(52)
Calculus Micro Observation Only Cyst Dilatation	3 (6%)			2 (4%)		2 (4%) 1 (2%)
Inflammation Mineralization	25 (48%)			28 (54%)	30 (58%)	18 (35%)
Necrosis Nephropathy Pigmentation Artery, Inflammation, Chronic Active	42 (81%) 2 (4%) 1 (2%)			40 (77%) 3 (6%)	1 (2%) 46 (88%) 3 (6%)	44 (85%) 4 (8%)
				1 (2%)		1 (2%)
Capsule, Inflammation, Chronic Active Pelvis, Dilatation				1 (20/.)		
				1 (2%)		1 (2%)

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TEF evaluation (PCB 118) **CAS Number:** 31508-00-6

Lab: BAT

Date Report Requested: 07/15/2008 Time Report Requested: 10:22:40 First Dose M/F: NA / 03/26/04

SPRAGUE-DAWLEY RATS FEMALE	1000 UG/KG	4600 UG/KG
Disposition Summary		
Animals Initially in Study Early Deaths Dosing Accident	80	80
Moribund Sacrifice Natural Death	16 8	16 11
Survivors Terminal Sacrifice Animals Examined Microscopically	28 52	25 52
ALIMENTARY SYSTEM		
Esophagus Ulcer	(52)	(52)
Muscularis, Degeneration Muscularis, Inflammation	1 (2%)	
Intestine Large, Cecum Degeneration, Fatty Inflammation Ulcer	(52) 1 (2%)	(48)
Artery, Inflammation, Chronic Active Intestine Large, Colon	3 (6%) (52)	1 (2%) (48)
Parasite Metazoan	1 (2%)	1 (2%)
Artery, Inflammation, Chronic Active Intestine Large, Rectum Inflammation	3 (6%) (52)	1 (2%) (50)
Parasite Metazoan	1 (2%)	3 (6%)
Artery, Inflammation, Chronic Active Intestine Small, Duodenum Inflammation Ulcer	5 (10%) (52) 1 (2%) 1 (2%)	1 (2%) (48)
Intestine Small, Ileum	(52)	(47)
Artery, Inflammation, Chronic Active Intestine Small, Jejunum Inflammation, Chronic Active Artery, Inflammation, Chronic Active	1 (2%) (52) 1 (2%) 1 (2%)	(48)
Liver	(52)	(49)
Angiectasis Basophilic Focus	8 (15%)	2 (4%) 1 (2%)
Basophilic Focus, Multiple	1 (2%)	
Cholangiofibrosis Clear Cell Focus	2 (4%) 2 (4%)	22 (45%)

TDMS No. 20304 - 01

Test Type: CHRONIC

Species/Strain: RATS/SD

a - Number of animals examined microscopically at site and number of animals with lesion

TDMS No. 20304 - 01 Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/SD

TEF evaluation (PCB 118) **CAS Number:** 31508-00-6

Date Report Requested: 07/15/2008 Time Report Requested: 10:22:40 First Dose M/F: NA / 03/26/04

SPRAGUE-DAWLEY RATS FEMALE	1000 UG/KG	4600 UG/KG	
Clear Cell Focus, Multiple	3 (6%)		
Degeneration, Cystic	1 (2%)	2 (4%)	
Eosinophilic Focus	5 (10%)		
Eosinophilic Focus, Multiple	20 (38%)	41 (84%)	
Fatty Change, Focal	3 (6%)	` '	
Fatty Change, Diffuse	39 (75%)	48 (98%)	
Hematopoietic Cell Proliferation	19 (37%)	21 (43%)	
Hepatodiaphragmatic Nodule	(5175)	_ (() () ()	
Hyperplasia, Nodular	12 (23%)	43 (88%)	
Inflammation	43 (83%)	44 (90%)	
Mixed Cell Focus	1 (2%)	1 (2%)	
Mixed Cell Focus, Multiple	30 (58%)	6 (12%)	
Necrosis	20 (38%)	22 (45%)	
Pigmentation	50 (96%)	48 (98%)	
Toxic Hepatopathy	33 (63%)	46 (94%)	
Bile Duct, Cyst	6 (12%)	21 (43%)	
Bile Duct, Fibrosis	2 (4%)	40 (000()	
Bile Duct, Hyperplasia	21 (40%)	40 (82%)	
Capsule, Inflammation	2 (122()	. (50()	
Centrilobular, Degeneration	6 (12%)	1 (2%)	
Hepatocyte, Hypertrophy	44 (85%)	48 (98%)	
Hepatocyte, Multinucleated	40 (77%)	43 (88%)	
Oval Cell, Hyperplasia	40 (77%)	46 (94%)	
Mesentery	(9)	(9)	
Hemorrhage			
Artery, Inflammation, Chronic Active	5 (56%)	8 (89%)	
Artery, Thrombosis		1 (11%)	
Fat, Necrosis	1 (11%)	1 (11%)	
Oral Mucosa	(1)	(3)	
Gingival, Cyst	, ,	1 (33%)	
Gingival, Hyperplasia, Squamous	1 (100%)	` ,	
Pancreas	(52)	(47)	
Degeneration	,	,	
Inflammation, Chronic Active	3 (6%)	2 (4%)	
Acinus, Atrophy, Focal	3 (6%)	1 (2%)	
Acinus, Atrophy, Diffuse	2 (373)	1 (2%)	
Acinus, Hyperplasia	1 (2%)	1 (270)	
Acinus, Vacuolization Cytoplasmic	4 (8%)	42 (89%)	
Artery, Inflammation, Chronic Active	7 (13%)	12 (26%)	
Duct, Dilatation	7 (1370)	3 (6%)	
Duct, Inflammation		2 (4%)	
Duct, Inflammation Duct, Necrosis		2 (4%) 1 (2%)	
	(50)		
Salivary Glands	(52)	(51)	
Degeneration	1 (2%)	(54)	
Stomach, Forestomach	(52)	(51)	
Hyperplasia, Squamous	2 (4%)	3 (6%)	

a - Number of animals examined microscopically at site and number of animals with lesion

TEF evaluation (PCB 118)
CAS Number: 31508-00-6

Date Report Requested: 07/15/2008 Time Report Requested: 10:22:40 First Dose M/F: NA / 03/26/04

Lab: BAT

1000 UG/KG	4600 UG/KG
	1 (2%)
(((() () () () () () () () (. (221)
	1 (2%)
(52)	(51)
1 (2%)	
. (= /3)	1 (2%)
	·/
(4)	(7)
4 (100%)	6 (86%)
(52)	(51)
(52)	(50)
19 (37%)	16 (32%)
1 (2%)	1 (2%)
1 (2%)	1 (2%)
	1 (2%)
1 (2%)	2 (4%)
1 (2/0)	Z (7/0)
	1 (2%)
	. (270)
(52)	(49)
9 (17%)	35 (71%)
6 (12%)	8 (16%)
1 (2%)	40 (070)
	13 (27%)
44 (85%)	34 (69%)
3 (6%)	
12 (23%)	18 (37%)
(52)	(49)
10 (19%)	1 (2%)
1 (2%)	, ,
	1 (2%) (52) 1 (2%) (4) 4 (100%) (52) (52) (52) 19 (37%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 3 (612%) 44 (85%) 3 (6%) 12 (23%) (52) 10 (19%)

TDMS No. 20304 - 01

Test Type: CHRONIC

Species/Strain: RATS/SD

a - Number of animals examined microscopically at site and number of animals with lesion

TDMS No. 20304 - 01 Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/SD

TEF evaluation (PCB 118)
CAS Number: 31508-00-6

Date Report Requested: 07/15/2008 Time Report Requested: 10:22:40 First Dose M/F: NA / 03/26/04

Lab: BAT

SPRAGUE-DAWLEY RATS FEMALE	1000 UG/KG	4600 UG/KG
Islets, Pancreatic Hyperplasia	(52)	(47)
Parathyroid Gland Hyperplasia	(50)	(47)
Pituitary Gland	(52)	(52)
Angiectasis	1 (2%)	, ,
Cyst		
Pars Distalis, Cyst	1 (2%)	
Pars Distalis, Hyperplasia	16 (31%)	10 (19%)
Thyroid Gland	(52)	(49)
Infiltration Cellular, Lymphocyte Inflammation	1 (2%)	1 (2%)
C-cell, Hyperplasia	12 (23%)	11 (22%)
Follicular Cell, Hyperplasia	1 (2%)	,
Follicular Cell, Hypertrophy	21 (40%)	23 (47%)

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Clitoral Gland	(51)	(49)
Hyperplasia, Squamous		
Inflammation	35 (69%)	13 (27%)
Duct, Cyst	37 (73%)	30 (61%)
Ovary	(52)	(48)
Cyst	14 (27%)	7 (15%)
Fibrosis		
Inflammation	1 (2%)	2 (4%)
Pigmentation		
Bilateral, Cyst		
Uterus	(52)	(49)
Adenomyosis		1 (2%)
Cyst		1 (2%)
Hemorrhage	1 (2%)	1 (2%)
Inflammation	8 (15%)	4 (8%)
Metaplasia, Squamous	35 (67%)	5 (10%)
Thrombosis	1 (2%)	
Ulcer	2 (4%)	
Artery, Inflammation, Chronic Active		
Cervix, Cyst	1 (2%)	
Endometrium, Hyperplasia, Cystic	13 (25%)	9 (18%)
Epithelium, Hyperplasia	1 (2%)	

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Test Type: CHRONIC
Route: GAVAGE

TDMS No. 20304 - 01

Species/Strain: RATS/SD

TEF evaluation (PCB 118) **CAS Number:** 31508-00-6

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SPRAGUE-DAWLEY RATS FEMALE	1000 UG/KG	4600 UG/KG
Vagina	(1)	(0)
HEMATOPOIETIC SYSTEM		
Bone Marrow	(52)	(52)
Atrophy	1 (2%)	` '
Hyperplasia	34 (65%)	47 (90%)
Myelofibrosis	(, , ,	(,
Necrosis		1 (2%)
Lymph Node	(0)	(2)
Bronchial, Ectasia	(-)	1 (50%)
Bronchial, Hemorrhage		1 (50%)
Mediastinal, Hemorrhage		. (5575)
Lymph Node, Mandibular	(52)	(51)
Atrophy	1 (2%)	1 (2%)
Hyperplasia, Lymphoid	1 (2%)	1 (2%)
Hyperplasia, Plasma Cell	30 (58%)	19 (37%)
Lymph Node, Mesenteric	(52)	(47)
Atrophy	1 (2%)	(71)
Ectasia	1 (270)	1 (2%)
Hemorrhage	1 (2%)	1 (2/0)
Hyperplasia, Plasma Cell	1 (2/0)	
Spleen	(52)	(47)
Hematopoietic Cell Proliferation	32 (62%)	34 (72%)
Hemorrhage	JZ (UZ /0)	J4 (1270)
Necrosis		
Pigmentation	40 (77%)	28 (60%)
Capsule, Hemorrhage	40 (1170)	20 (00 /0)
Lymphoid Follicle, Atrophy	3 (6%)	3 (6%)
Red Pulp, Atrophy	1 (2%)	3 (6%)
Thymus	(50)	(49)
Atrophy	46 (92%)	44 (90%)
Cyst	40 (32 /0)	44 (30 /0)
Hemorrhage	1 (2%)	3 (6%)
Inflammation	1 (2/0)	3 (070)
Artery, Inflammation, Chronic Active		2 (4%)
, atory, minimization, Official Active		2 (770)
INTEGUMENTARY SYSTEM		
Mammary Gland	(52)	(50)
Cyst		. (0)
Hyperplasia		1 (2%)
Inflammation, Granulomatous		
Inflammation, Chronic Active		

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TEF evaluation (PCB 118) CAS Number: 31508-00-6

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Lab: BAT

SPRAGUE-DAWLEY RATS FEMALE	1000 UG/KG	4600 UG/KG
Skin Cyst Epithelial Inclusion Hyperkeratosis Hyperplasia, Squamous Inflammation	(52)	(51)
MUSCULOSKELETAL SYSTEM		
Skeletal Muscle	(1)	(0)
NERVOUS SYSTEM		
Brain Angiectasis Gliosis Hemorrhage Hydrocephalus Necrosis	(52)	(52)
Vacuolization Cytoplasmic Meninges, Inflammation Spinal Cord Nerve, Degeneration	(0)	(1) 1 (100%)
RESPIRATORY SYSTEM		
Lung Congestion Hemorrhage Inflammation Metaplasia, Squamous Pigmentation Proteinosis	(52) 1 (2%) 2 (4%) 1 (2%)	(50) 1 (2%) 2 (4%) 13 (26%) 1 (2%)
Alveolar Epithelium, Hyperplasia Alveolar Epithelium, Metaplasia, Bronchiolar Alveolus, Infiltration Cellular, Histiocyte Artery, Mediastinum, Inflammation, Chronic Active Serosa, Inflammation	24 (46%) 34 (65%)	40 (80%) 40 (80%) 1 (2%)
Nose Cyst	(52)	(52)
Inflammation Nasolacrimal Duct, Inflammation, Suppurative Olfactory Epithelium, Degeneration	5 (10%)	23 (44%) 1 (2%) 1 (2%)

TDMS No. 20304 - 01 Test Type: CHRONIC

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Test Type: CHRONIC
Route: GAVAGE

TDMS No. 20304 - 01

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Lab: BAT

SPRAGUE-DAWLEY RATS FEMALE	1000 UG/KG	4600 UG/KG			
Olfactory Epithelium, Metaplasia		1 (2%)			
Respiratory Epithelium, Netaplasia Respiratory Epithelium, Degeneration, Focal		1 (2%)			
Respiratory Epithelium, Hyperplasia Respiratory Epithelium, Necrosis	14 (27%)	27 (52%)			
Trachea	(52)	(52)			
Inflammation		1 (2%)			
SPECIAL SENSES SYSTEM					
Eye	(52)	(52)			
Cornea, Inflammation	(/	()			
Retina, Atrophy	1 (2%)	6 (12%)			
Harderian Gland	(52)	(52)			
Hyperplasia Infiltration Cellular, Mononuclear Cell	4 (00()	40 (050()			
Vacuolization Cytoplasmic	4 (8%) 1 (2%)	13 (25%)			
			-		
URINARY SYSTEM					
Kidney	(52)	(50)			
Accumulation, Hyaline Droplet	1 (20/)				
Calculus Micro Observation Only Cyst	1 (2%)	1 (2%)			
Dilatation		1 (2/0)			
Inflammation	1 (2%)				
Mineralization	22 (42%)	25 (50%)			
Necrosis					
Nephropathy	44 (85%)	46 (92%)			
Pigmentation Artery, Inflammation, Chronic Active	6 (12%)	42 (84%)			
Capsule, Inflammation, Chronic Active	1 (2%) 1 (2%)				
Pelvis, Dilatation	1 (2%)				
Pelvis, Inflammation	2 (4%)	2 (4%)			
Renal Tubule, Hyperplasia					
Transitional Epithelium, Hyperplasia	3 (6%)	3 (6%)			
Ureter	(1)	(0)			
Urinary Bladder Hyperplasia	(52)	(50)			
nvoerbiasia					
Inflammation	1 (2%)				

*** END OF REPORT ***

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