

**Experiment Number:** 20515 - 03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** RATS/Wistar Han

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
Metal working fluids (CIMSTAR 3800)  
**CAS Number:** CIMSTAR3800

**Date Report Requested:** 02/18/2014  
**Time Report Requested:** 12:32:34  
**First Dose M/F:** 04/14/08 / 04/14/08  
**Lab:** BNW

F2\_RE

**NTP Study Number:** C20515  
**Lock Date:** 01/12/2011  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 3.0.2.0\_001  
**PWG Approval Date:** 02/21/2013

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		DAY ON TEST																									males (cont...)
WISTAR HAN RATS MALE		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Control	ANIMAL ID	7	7	7	7	5	7	7	5	7	7	3	7	6	7	7	7	7	7	7	7	7	7	7	7	7	
		1	1	0	3	9	3	2	3	1	3	4	3	1	2	3	3	2	2	0	3	2	2	2	2	2	
		8	5	4	0	7	0	9	5	0	0	5	0	2	9	0	0	9	9	4	9	0	9	9	9	9	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum	+	+	+	+	I	+	+	+	+	I	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Mesentery Mesothelioma Malignant	+								+						+				+				+		
Oral Mucosa																									
Pancreas Adenoma Mesothelioma Malignant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Salivary Glands Schwannoma Malignant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
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WISTAR HAN RATS MALE	DAY ON TEST																									males (cont...)
	078	071	070	073	079	073	072	073	071	073	074	073	071	072	073	073	072	070	074	070	077	072	079	077	077	
Control	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
	118	215	314	410	517	613	719	815	910	010	111	211	311	411	511	611	711	811	910	011	112	212	312	412	512	

Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
C-cell, Adenoma			X	X											X	X									
C-cell, Adenoma, Multiple														X											
Follicular Cell, Adenoma			X																						

**GENERAL BODY SYSTEM**

Peritoneum																									
Mesothelioma Malignant																									

**GENITAL SYSTEM**

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Mesothelioma Malignant																									
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Adenoma, Multiple							X																		
Mesothelioma Malignant																									
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Adenoma							X																		
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Mesothelioma Malignant																									
Interstitial Cell, Adenoma							X																		

**HEMATOPOIETIC SYSTEM**

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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WISTAR HAN RATS MALE Control	DAY ON TEST																									males (cont...)	
	0718	0715	0710	0703	0696	0689	0682	0675	0668	0661	0654	0647	0640	0633	0626	0619	0612	0605	0598	0591	0584	0577	0570	0563			
ANIMAL ID	0001	0002	0003	0004	0005	0006	0007	0008	0009	0010	0011	0012	0013	0014	0015	0016	0017	0018	0019	0020	0021	0022	0023	0024	0025		
Hemangiosarcoma																											X
Lymph Node	+	+	+	+		+																					
Lymph Node, Bronchial	+	+	M	+	+	M	+	+	+	M	+	M	+	+	+	+	+	+	+	M	+	+	+	+	+	M	
Lymph Node, Mandibular	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	
Lymph Node, Mediastinal	+	+	+	+	+	+	+	M	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lymph Node, Mesenteric Hemangiosarcoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	X
Spleen Mesothelioma Malignant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Thymus Thymoma Benign	+	+	+	+	+	+	+	I	I	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	I	I
<b>INTEGUMENTARY SYSTEM</b>																											
Mammary Gland	M	M	+	M	M	M	M	+	M	M	M	M	M	M	M	+	M	M	M	M	M	M	M	M	M	M	M
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Basal Cell Carcinoma																											
Keratoacanthoma																											X
Subcutaneous Tissue, Fibroma																											
Subcutaneous Tissue, Fibrosarcoma																											X
Subcutaneous Tissue, Lipoma																											X
<b>MUSCULOSKELETAL SYSTEM</b>																											

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WISTAR HAN RATS MALE	DAY ON TEST																									males (cont...)
	0718	0715	0704	0703	0705	0707	0707	0705	0707	0707	0703	0706	0707	0707	0707	0702	0702	0704	0707	0707	0707	0707	0707	0707		
Control	ANIMAL ID																									
	0001	0002	0003	0004	0005	0006	0007	0008	0009	0010	0011	0012	0013	0014	0015	0016	0017	0018	0019	0020	0021	0022	0023	0024	0025	
Bone Osteosarcoma	+	+	+	+	+	+	+	+	+	+	X	+	+	+	+	+	+	+	+	+	+	+	+	+		
Skeletal Muscle Mesothelioma Malignant																										
<b>NERVOUS SYSTEM</b>																										
Brain Glioma Meningioma Malignant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		X											X													
Peripheral Nerve			+		+																		+			
Spinal Cord			+		+																		+			
<b>RESPIRATORY SYSTEM</b>																										
Larynx	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lung Alveolar/Bronchiolar Adenoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
<b>SPECIAL SENSES SYSTEM</b>																										
Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

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WISTAR HAN RATS MALE Control	DAY ON TEST																								* TOTALS
	0627	0599	0597	0730	0779	0770	0631	0733	0729	0494	0771	0773	0773	0771	0777	0773	0522	0723	0729	0770	0673	0665	0729		
ANIMAL ID	0026	0007	0008	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
Leiomyoma																								1	
Mesothelioma Malignant																								1	
Sarcoma																								1	
Stomach, Glandular Sarcoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
																								1	
<b>CARDIOVASCULAR SYSTEM</b>																									
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Heart Schwannoma Benign	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
																								1	
<b>ENDOCRINE SYSTEM</b>																									
Adrenal Cortex Adenoma Bilateral, Carcinoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
		X																						2	
				X																				1	
Adrenal Medulla Pheochromocytoma Benign	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
																								4	
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Parathyroid Gland	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43	
Pituitary Gland Pars Distalis, Adenoma	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
	X			X			X							X	X			X			X	X		16	
																						X		2	

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Wistar Han Rats Male Control	DAY ON TEST																								* TOTALS	
	0627	0599	0597	0730	0779	0770	0631	0732	0779	0441	0771	0773	0773	0773	0773	0773	0773	0522	0723	0722	0722	0723	0607	0663		0722
ANIMAL ID	00026	00007	00008	00009	00000	00001	00002	00003	00004	00005	00006	00007	00008	00009	00000	00001	00002	00003	00004	00005	00006	00007	00008	00009	00000	
Hemangiosarcoma																									1	
Lymph Node		+					+	+																	12	
Lymph Node, Bronchial		+	+	+	+	+	+	+	+	+	+	M	+	+	M	+	+	+	+	+	+	+	+	+	42	
Lymph Node, Mandibular		+	M	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	46	
Lymph Node, Mediastinal		+	+	M	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	46	
Lymph Node, Mesenteric Hemangiosarcoma		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 3	
Spleen Mesothelioma Malignant		+	+	+	+	+	+	+	+	+	+	+	+	+	X	+	+	+	+	+	+	+	+	+	50 1	
Thymus Thymoma Benign		+	+	+	I	+	+	+	+	X	M	+	+	+	+	M	+	+	M	+	+	+	+	+	40 1	
<b>INTEGUMENTARY SYSTEM</b>																										
Mammary Gland		+	M	+	M	+	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	6	
Skin Basal Cell Carcinoma		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1	
Skin Keratoacanthoma																									1	
Skin Subcutaneous Tissue, Fibroma																									1	
Skin Subcutaneous Tissue, Fibrosarcoma																									1	
Skin Subcutaneous Tissue, Lipoma																									1	
<b>MUSCULOSKELETAL SYSTEM</b>																										

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	0627	0599	0597	0730	0779	0770	0671	0733	0729	0494	0771	0773	0773	0773	0773	0773	0773	0522	0732	0772	0772	0673	0665	0729		
Control	ANIMAL ID																									
	00026	00007	00008	00009	00000	00001	00002	00003	00004	00005	00006	00007	00008	00009	00000	00001	00002	00003	00004	00005	00006	00007	00008	00009		
Bone Osteosarcoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	501	
Skeletal Muscle Mesothelioma Malignant																									11	
<b>NERVOUS SYSTEM</b>																										
Brain Glioma Meningioma Malignant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	5021	
Peripheral Nerve		+	+																						5	
Spinal Cord		+	+																						5	
<b>RESPIRATORY SYSTEM</b>																										
Larynx	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lung Alveolar/Bronchiolar Adenoma	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	501	
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
<b>SPECIAL SENSES SYSTEM</b>																										
Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	

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 Lab: BNW

WISTAR HAN RATS MALE 10 mg/m3	DAY ON TEST																									ANIMAL ID	males (cont...)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS MALE  10 mg/m3	DAY ON TEST																									ANIMAL ID	males (cont...)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
	0730	0733	0734	0737	0739	0742	0747	0752	0758	0763	0769	0774	0777	0782	0789	0794	0797	0803	0806	0811	0817	0822	0828	0833	0839			0844	0850	0855	0861	0866	0872	0877	0883	0888	0894	0899	0905	0910	0916	0921	0927	0932	0938	0943	0949	0954	0960	0965	0971	0976	0982	0987	0993	0998	1004	1009	1015	1020	1026	1031	1037	1042	1048	1053	1059	1064	1070	1075	1081	1086	1092	1097	1103	1108	1114	1119	1125	1130	1136	1141	1147	1152	1158	1163	1169	1174	1180	1185	1191	1196	1202	1207	1213	1218	1224	1229	1235	1240	1246	1251	1257	1262	1268	1273	1279	1284	1290	1295	1301	1306	1312	1317	1323	1328	1334	1339	1345	1350	1356	1361	1367	1372	1378	1383	1389	1394	1400	1405	1411	1416	1422	1427	1433	1438	1444	1449	1455	1460	1466	1471	1477	1482	1488	1493	1499	1504	1510	1515	1521	1526	1532	1537	1543	1548	1554	1559	1565	1570	1576	1581	1587	1592	1598	1603	1609	1614	1620	1625	1631	1636	1642	1647	1653	1658	1664	1669	1675	1680	1686	1691	1697	1702	1708	1713	1719	1724	1730	1735	1741	1746	1752	1757	1763	1768	1774	1779	1785	1790	1796	1801	1807	1812	1818	1823	1829	1834	1840	1845	1851	1856	1862	1867	1873	1878	1884	1889	1895	1900	1906	1911	1917	1922	1928	1933	1939	1944	1950	1955	1961	1966	1972	1977	1983	1988	1994	1999	2005	2010	2016	2021	2027	2032	2038	2043	2049	2054	2060	2065	2071	2076	2082	2087	2093	2098	2104	2109	2115	2120	2126	2131	2137	2142	2148	2153	2159	2164	2170	2175	2181	2186	2192	2197	2203	2208	2214	2219	2225	2230	2236	2241	2247	2252	2258	2263	2269	2274	2280	2285	2291	2296	2302	2307	2313	2318	2324	2329	2335	2340	2346	2351	2357	2362	2368	2373	2379	2384	2390	2395	2401	2406	2412	2417	2423	2428	2434	2439	2445	2450	2456	2461	2467	2472	2478	2483	2489	2494	2500	2505	2511	2516	2522	2527	2533	2538	2544	2549	2555	2560	2566	2571	2577	2582	2588	2593	2599	2604	2610	2615	2621	2626	2632	2637	2643	2648	2654	2659	2665	2670	2676	2681	2687	2692	2698	2703	2709	2714	2720	2725	2731	2736	2742	2747	2753	2758	2764	2769	2775	2780	2786	2791	2797	2802	2808	2813	2819	2824	2830	2835	2841	2846	2852	2857	2863	2868	2874	2879	2885	2890	2896	2901	2907	2912	2918	2923	2929	2934	2940	2945	2951	2956	2962	2967	2973	2978	2984	2989	2995	3000	3006	3011	3017	3022	3028	3033	3039	3044	3050	3055	3061	3066	3072	3077	3083	3088	3094	3099	3105	3110	3116	3121	3127	3132	3138	3143	3149	3154	3160	3165	3171	3176	3182	3187	3193	3198	3204	3209	3215	3220	3226	3231	3237	3242	3248	3253	3259	3264	3270	3275	3281	3286	3292	3297	3303	3308	3314	3319	3325	3330	3336	3341	3347	3352	3358	3363	3369	3374	3380	3385	3391	3396	3402	3407	3413	3418	3424	3429	3435	3440	3446	3451	3457	3462	3468	3473	3479	3484	3490	3495	3501	3506	3512	3517	3523	3528	3534	3539	3545	3550	3556	3561	3567	3572	3578	3583	3589	3594	3600	3605	3611	3616	3622	3627	3633	3638	3644	3649	3655	3660	3666	3671	3677	3682	3688	3693	3699	3704	3710	3715	3721	3726	3732	3737	3743	3748	3754	3759	3765	3770	3776	3781	3787	3792	3798	3803	3809	3814	3820	3825	3831	3836	3842	3847	3853	3858	3864	3869	3875	3880	3886	3891	3897	3902	3908	3913	3919	3924	3930	3935	3941	3946	3952	3957	3963	3968	3974	3979	3985	3990	3996	4001	4007	4012	4018	4023	4029	4034	4040	4045	4051	4056	4062	4067	4073	4078	4084	4089	4095	4100	4106	4111	4117	4122	4128	4133	4139	4144	4150	4155	4161	4166	4172	4177	4183	4188	4194	4199	4205	4210	4216	4221	4227	4232	4238	4243	4249	4254	4260	4265	4271	4276	4282	4287	4293	4298	4304	4309	4315	4320	4326	4331	4337	4342	4348	4353	4359	4364	4370	4375	4381	4386	4392	4397	4403	4408	4414	4419	4425	4430	4436	4441	4447	4452	4458	4463	4469	4474	4480	4485	4491	4496	4502	4507	4513	4518	4524	4529	4535	4540	4546	4551	4557	4562	4568	4573	4579	4584	4590	4595	4601	4606	4612	4617	4623	4628	4634	4639	4645	4650	4656	4661	4667	4672	4678	4683	4689	4694	4700	4705	4711	4716	4722	4727	4733	4738	4744	4749	4755	4760	4766	4771	4777	4782	4788	4793	4799	4804	4810	4815	4821	4826	4832	4837	4843	4848	4854	4859	4865	4870	4876	4881	4887	4892	4898	4903	4909	4914	4920	4925	4931	4936	4942	4947	4953	4958	4964	4969	4975	4980	4986	4991	4997	5002	5008	5013	5019	5024	5030	5035	5041	5046	5052	5057	5063	5068	5074	5079	5085	5090	5096	5101	5107	5112	5118	5123	5129	5134	5140	5145	5151	5156	5162	5167	5173	5178	5184	5189	5195	5200	5206	5211	5217	5222	5228	5233	5239	5244	5250	5255	5261	5266	5272	5277	5283	5288	5294	5299	5305	5310	5316	5321	5327	5332	5338	5343	5349	5354	5360	5365	5371	5376	5382	5387	5393	5398	5404	5409	5415	5420	5426	5431	5437	5442	5448	5453	5459	5464	5470	5475	5481	5486	5492	5497	5503	5508	5514	5519	5525	5530	5536	5541	5547	5552	5558	5563	5569	5574	5580	5585	5591	5596	5602	5607	5613	5618	5624	5629	5635	5640	5646	5651	5657	5662	5668	5673	5679	5684	5690	5695	5701	5706	5712	5717	5723	5728	5734	5739	5745	5750	5756	5761	5767	5772	5778	5783	5789	5794	5800	5805	5811	5816	5822	5827	5833	5838	5844	5849	5855	5860	5866	5871	5877	5882	5888	5893	5899	5904	5910	5915	5921	5926	5932	5937	5943	5948	5954	5959	5965	5970	5976	5981	5987	5992	5998	6003	6009	6014	6020	6025	6031	6036	6042	6047	6053	6058	6064	6069	6075	6080	6086	6091	6097	6102	6108	6113	6119	6124	6130	6135	6141	6146	6152	6157	6163	6168	6174	6179	6185	6190	6196	6201	6207	6212	6218	6223	6229	6234	6240	6245	6251	6256	6262	6267	6273	6278	6284	6289	6295	6300	6306	6311	6317	6322	6328	6333	6339	6344	6350	6355	6361	6366	6372	6377	6383	6388	6394	6399	6405	6410	6416	6421	6427	6432	6438	6443	6449	6454	6460	6465	6471	6476	6482	6487	6493	6498	6504	6509	6515	6520	6526	6531	6537	6542	6548	6553	6559	6564	6570	6575	6581	6586	6592	6597	6603	6608	6614	6619	6625	6630	6636	6641	6647	6652	6658	6663	6669	6674	6680	6685	6691	6696	6702	6707	6713	6718	6724	6729	6735	6740	6746	6751	6757	6762	6768	6773	6779	6784	6790	6795	6801	6806	6812	6817	6823	6828	6834	6839	6845	6850	6856	6861	6867	6872	6878	6883	6889	6894	6900	6905	6911	6916	6922	6927	6933	6938	6944	6949	6955	6960	6966	6971	6977	6982	6988	6993	6999	7004	7010	7015	7021	7026	7032	7037	7043	7048	7054	7059	7065	7070	7076	7081	7087	7092	7098	7103	7109	7114	7120	7125	7131	7136	7142	7147	7153	7158	7164	7169	7175	7180	7186	7191	7197	7202	7208	7213	7219	7224	7230	7235	7241	7246	7252	7257	7263	7268	7274	7279	7285	7290	7296	7301	7307	7312	7318	7323	7329	7334	7340	7345	7351	7356	7362	7367	7373	7378	7384	7389	7395	7400	7406	7411	7417	7422	7428	7433	7439	7444	7450	7455	7461	7466	7472	7477	7483	7488	7494	7500	7505	7511	7516	7522	7527	7533	7538	7544	7549	7555	7560	7566	7571	7577	7582	7588	7593	7599	7604	7610	7615	7621	7626	7632	7637	7643	7648	7654	7659	7665	7670	7676	7681	7687	7692	7698	7703	7709	7714	7720	7725	7731	7736	7742	7747	7753	7758	7764	7769	7775	7780	7786	7791	7797	7802	7808	7813	7819	7824	7830	7835	7841	7846	7852	7857	7863	7868	7874	7879	7885	7890	7896	7901	7907	7912	7918	7923	7929	7934	7940	7945	7951	7956	7962	7967	7973	7978	7984	7989	7995	8000	8006	8011	8017



Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS MALE  10 mg/m3	DAY ON TEST																									males (cont...)
	0730	0734	0750	0773	0777	0777	0777	0722	0777	0777	0777	0777	0777	0777	0777	0766	0755	0755	0744	0777	0777	0766	0777	0766	0777	
ANIMAL ID	0020	0002	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
Lymphoma Malignant																										
Lymph Node			+																							
Axillary, Lymphoma Malignant			X																							
Pancreatic, Lymphoma Malignant			X																							
Lymph Node, Bronchial	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Lymphoma Malignant			X					X																		
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	M	+	M	+	+	+	+		
Carcinoma, Metastatic, Zymbal'S Gland																										
Lymphoma Malignant									X																	
Lymph Node, Mediastinal	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Lymphoma Malignant			X					X																		
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Hemangiosarcoma																										
Lymphoma Malignant			X					X																		
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Lymphoma Malignant			X					X																		
Thymus	+	+	+	+	+	+	+	+	I	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+		
Lymphoma Malignant								X																		
<b>INTEGUMENTARY SYSTEM</b>																										
Mammary Gland	M	+	M	+	M	+	M	M	M	M	M	+	M	M	M	M	M	M	M	M	M	M	M	M		
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically



Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS MALE 10 mg/m3	DAY ON TEST																									males (cont...)
	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	
ANIMAL ID	002011	002012	002013	002014	002015	002016	002017	002018	002019	002020	002021	002022	002023	002024	002025	002026	002027	002028	002029	002030	002031	002032	002033	002034	002035	002036
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lymphoma Malignant			X						X																	
Osteosarcoma, Metastatic, Bone																			X							
Osteosarcoma, Metastatic, Uncertain Primary Site							X																			
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lymphoma Malignant								X																		
Trachea	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
<b>SPECIAL SENSES SYSTEM</b>																										
Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lymphoma Malignant								X																		
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lymphoma Malignant								X																		
Zymbal's Gland																										
Carcinoma																										
<b>URINARY SYSTEM</b>																										
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lymphoma Malignant			X					X																		
Renal Tubule, Adenoma							X																			
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lymphoma Malignant			X																							

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS MALE  10 mg/m3	DAY ON TEST	07030	07330	07547	07732	07772	07772	07286	07730	07732	07732	07732	07732	07732	07732	07633	07562	07562	07429	07733	07672	07672	07672	07672	males (cont...)
	ANIMAL ID	00200	00200	00200	00200	00200	00200	00200	00200	00200	00200	00200	00200	00200	00200	00200	00200	00200	00200	00200	00200	00200	00200	00200	
		12000	22000	32000	42000	52000	62000	72000	82000	92000	01000	11000	21000	31000	41000	51000	61000	71000	81000	91000	00100	10200	20200	30200	

**SYSTEMIC LESIONS**

Multiple Organ	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lymphoma Malignant			X					X																
Mesothelioma Malignant				X																				

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
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Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS MALE 10 mg/m3	DAY ON TEST																								* TOTALS		
	0729	0439	0730	0731	0732	0733	0734	0735	0736	0737	0738	0739	0740	0741	0742	0743	0744	0745	0746	0747	0748	0749	0750	0751			
ANIMAL ID	002226	00002	00003	00004	00005	00006	00007	00008	00009	00010	00011	00012	00013	00014	00015	00016	00017	00018	00019	00020	00021	00022	00023	00024			
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Tooth																									1		
<b>CARDIOVASCULAR SYSTEM</b>																											
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Lymphoma Malignant																									1		
<b>ENDOCRINE SYSTEM</b>																											
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Carcinoma																									1		
Lymphoma Malignant																									1		
Adrenal Medulla	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48		
Lymphoma Malignant																									2		
Pheochromocytoma Malignant																									1		
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Parathyroid Gland	+	+	+	M	+	+	+	+	+	+	+	M	+	M	+	+	+	+	+	+	+	+	M	+	43		
Adenoma																									1		
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Lymphoma Malignant																									1		
Pars Distalis, Adenoma	X		X									X	X	X	X					X			X	18			
Pars Intermedia, Adenoma									X																1		

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS MALE  10 mg/m3	DAY ON TEST																								* TOTALS
	0729	0439	0730	0731	0732	0733	0734	0735	0736	0737	0738	0739	0740	0741	0742	0743	0744	0745	0746	0747	0748	0749	0750		
ANIMAL ID	002266	002267	002268	002269	002270	002271	002272	002273	002274	002275	002276	002277	002278	002279	002280	002281	002282	002283	002284	002285	002286	002287	002288	002289	
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymphoma Malignant																								1	
C-cell, Adenoma				X									X											5	
Follicular Cell, Carcinoma								X																1	
<b>GENERAL BODY SYSTEM</b>																									
NONE																									
<b>GENITAL SYSTEM</b>																									
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymphoma Malignant																								1	
Mesothelioma Malignant																								1	
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Adenoma																								1	
Lymphoma Malignant																								1	
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Mesothelioma Malignant																								1	
Interstitial Cell, Adenoma																								1	
<b>HEMATOPOIETIC SYSTEM</b>																									
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS MALE 10 mg/m3	DAY ON TEST																								* TOTALS	
	0729	0439	0730	0731	0732	0733	0734	0735	0736	0737	0738	0739	0740	0741	0742	0743	0744	0745	0746	0747	0748	0749	0750	0751		
ANIMAL ID	002226	000027	000028	000029	000030	000031	000032	000033	000034	000035	000036	000037	000038	000039	000040	000041	000042	000043	000044	000045	000046	000047	000048	000049	000050	
Lymphoma Malignant																									1	
Lymph Node			+																						5	
Axillary, Lymphoma Malignant																									1	
Pancreatic, Lymphoma Malignant																									1	
Lymph Node, Bronchial Lymphoma Malignant	+	+	M	M	+	+	+	M	+	+	M	M	+	+	+	M	M	+	+	M	M	+	+	+	40	
																									2	
Lymph Node, Mandibular Carcinoma, Metastatic, Zymbal'S Gland Lymphoma Malignant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	46	
																									1	
																									1	
Lymph Node, Mediastinal Lymphoma Malignant	+	M	M	+	+	+	+	+	+	+	+	+	+	+	+	M	+	M	+	+	+	M	+	+	45	
																									2	
Lymph Node, Mesenteric Hemangiosarcoma Lymphoma Malignant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
																									1	
																									2	
Spleen Lymphoma Malignant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
																									2	
Thymus Lymphoma Malignant	M	+	M	I	+	+	I	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	43		
																									1	
<b>INTEGUMENTARY SYSTEM</b>																										
Mammary Gland	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	+	M	M	M	6
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically





Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS MALE 10 mg/m3	DAY ON TEST																								* TOTALS
	0729	0439	0730	0731	0732	0733	0734	0735	0736	0737	0738	0739	0740	0741	0742	0743	0744	0745	0746	0747	0748	0749	0750	0751	
ANIMAL ID	002226	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	000022	
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymphoma Malignant																								2	
Osteosarcoma, Metastatic, Bone																								1	
Osteosarcoma, Metastatic, Uncertain Primary Site																								1	
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymphoma Malignant																								1	
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
<b>SPECIAL SENSES SYSTEM</b>																									
Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymphoma Malignant																								1	
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymphoma Malignant																								1	
Zymbal's Gland																								2	
Carcinoma																								2	
<b>URINARY SYSTEM</b>																									
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymphoma Malignant																								2	
Renal Tubule, Adenoma																								1	
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymphoma Malignant																								1	

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically









Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS MALE 30 mg/m3	DAY ON TEST																									ANIMAL ID	males (cont...)
	0731	0732	0733	0734	0735	0736	0737	0738	0739	0740	0741	0742	0743	0744	0745	0746	0747	0748	0749	0750	0751	0752	0753	0754	0755		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0040	
	7	7	7	7	7	5	7	6	7	7	7	7	7	7	5	7	7	7	7	7	7	6	7	7	7	0041	
	3	2	2	3	1	6	0	5	0	0	2	2	2	3	6	3	3	3	3	3	3	2	2	2	3	0042	
	1	9	9	1	1	4	4	3	4	4	9	6	9	0	4	0	0	0	0	0	0	2	2	0	9	0043	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0044	
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0045	
	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	0046	
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	0047	

Lymphoma Malignant

Lymph Node, Mesenteric  
Hemangioma

Spleen

Thymus  
Thymoma Benign

**INTEGUMENTARY SYSTEM**

Mammary Gland

Skin  
Basal Cell Carcinoma  
Squamous Cell Papilloma  
Subcutaneous Tissue, Fibroma

**MUSCULOSKELETAL SYSTEM**

Bone

Skeletal Muscle  
Sarcoma

**NERVOUS SYSTEM**

Brain  
Glioma  
Granular Cell Tumor Malignant

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically









Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS MALE 30 mg/m3	DAY ON TEST																				* TOTALS					
	0729	0730	0739	0779	0770	0771	0772	0773	0774	0775	0776	0777	0778	0779	0780	0781	0782	0783	0784	0785		0786	0787	0788	0789	0790
ANIMAL ID	00426	00447	00448	00449	00450	00451	00452	00453	00454	00455	00456	00457	00458	00459	00460	00461	00462	00463	00464	00465	00466	00467	00468	00469	00470	
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Heart Schwannoma Benign	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 2	
<b>ENDOCRINE SYSTEM</b>																										
Adrenal Cortex Adenoma Carcinoma	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	49 2 1	
Adrenal Medulla Pheochromocytoma Benign	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	49 1	
Islets, Pancreatic Adenoma Carcinoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	49 2 1	
Parathyroid Gland	+	+	M	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44	
Pituitary Gland Pars Distalis, Adenoma Pars Distalis, Carcinoma Pars Intermedia, Adenoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 11 1 2	
Thyroid Gland C-cell, Adenoma C-cell, Carcinoma Follicular Cell, Carcinoma	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	49 3 1 1	

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically





Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS MALE 30 mg/m3	DAY ON TEST																								* TOTALS
	0729	0730	0739	0772	0773	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	
ANIMAL ID	00426	00442	00444	00444	00444	00444	00444	00444	00444	00444	00444	00444	00444	00444	00444	00444	00444	00444	00444	00444	00444	00444	00444	00444	
Peripheral Nerve																								6	
Spinal Cord																								7	
<b>RESPIRATORY SYSTEM</b>																									
Larynx	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lung Alveolar/Bronchiolar Adenoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1	
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
<b>SPECIAL SENSES SYSTEM</b>																									
Ear																								1	
Eye	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	A	+	+	+	+	48	
Harderian Gland Adenoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1	
Zymbal's Gland																								1	
<b>URINARY SYSTEM</b>																									
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	49	
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	A	+	+	+	+	48	

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically









Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS MALE  100 mg/m3	DAY ON TEST																								males (cont...)
	0704	0704	0705	0705	0707	0707	0707	0707	0707	0707	0707	0707	0707	0707	0707	0707	0707	0707	0707	0707	0707	0707	0707	0707	
ANIMAL ID	0001	0002	0003	0004	0005	0006	0007	0008	0009	0010	0011	0012	0013	0014	0015	0016	0017	0018	0019	0020	0021	0022	0023	0024	0025
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Sarcoma, Metastatic, Salivary Glands																									
Pars Distalis, Adenoma		X	X	X	X			X			X							X				X	X		
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
C-cell, Adenoma					X						X														
C-cell, Carcinoma																		X							
Follicular Cell, Carcinoma																									

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

Coagulating Gland

+

Epididymis  
Mesothelioma Malignant

+ + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

Preputial Gland

+ + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

Prostate  
Adenoma  
Adenoma, Multiple  
Lymphoma Malignant

+ + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

X  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

X  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Seminal Vesicle  
Lymphoma Malignant

+ + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

X  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Testes

+ + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically







Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS MALE  100 mg/m3	DAY ON TEST	0704	0704	0554	0571	0771	0777	0777	0777	0777	0777	0222	0664	0473	0773	0667	0773	0772	0772	0669	0772	0665	0774	0773	0773	males (cont...)
	ANIMAL ID	0060	0066	0066	0066	0066	0066	0066	0066	0066	0066	0066	0066	0066	0066	0066	0066	0066	0066	0066	0066	0066	0066	0066	0066	
		12345678901234567890123456789012345																								

**SYSTEMIC LESIONS**

Multiple Organ	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lymphoma Malignant																										
Mesothelioma Malignant																										

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
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Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS MALE 100 mg/m3	DAY ON TEST																				* TOTALS	
	0729	0611	0730	0722	0779	0770	0772	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779		0779
ANIMAL ID	00626	00622	00622	00622	00633	00633	00633	00633	00633	00633	00633	00633	00633	00633	00633	00633	00633	00633	00633	00633	00633	00633
	7	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Lymphoma Malignant																							1
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Lymphoma Malignant																							1
Mesentery		+																					2
Liposarcoma		X																					1
Lymphoma Malignant																							1
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Carcinoma																							1
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Sarcoma																		X					1
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS MALE 100 mg/m3	DAY ON TEST																								* TOTALS	
	0729	0611	0713	0722	0729	0730	0732	0739	0739	0739	0739	0739	0739	0739	0739	0739	0739	0739	0739	0739	0739	0739	0739	0739		
ANIMAL ID	00626	00662	00662	00662	00662	00666	00666	00666	00666	00666	00666	00666	00666	00666	00666	00666	00666	00666	00666	00666	00666	00666	00666	00666	00666	
Lymphoma Malignant																									1	
Stomach, Glandular Lymphoma Malignant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1	
Tooth																									1	
<b>CARDIOVASCULAR SYSTEM</b>																										
Blood Vessel Lymphoma Malignant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1	
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
<b>ENDOCRINE SYSTEM</b>																										
Adrenal Cortex Adenoma Carcinoma Lymphoma Malignant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1 1 1	
Adrenal Medulla Lymphoma Malignant Pheochromocytoma Benign	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1 5	
Islets, Pancreatic Adenoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 2	
Parathyroid Gland Adenoma	+	+	+	+	+	M	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	47 1		

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically



Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS MALE  100 mg/m3	DAY ON TEST																								* TOTALS		
	0729	0611	0730	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779		0779	
ANIMAL ID	00626	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662		
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Sarcoma, Metastatic, Salivary Glands																				X					1		
Pars Distalis, Adenoma	X			X		X		X						X		X					X			X	17		
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
C-cell, Adenoma																							X		5		
C-cell, Carcinoma																									1		
Follicular Cell, Carcinoma				X	X																				2		
<b>GENERAL BODY SYSTEM</b>																											
NONE																											
<b>GENITAL SYSTEM</b>																											
Coagulating Gland																									1		
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Mesothelioma Malignant																							X		1		
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Adenoma																								X	2		
Adenoma, Multiple																									1		
Lymphoma Malignant																									1		
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Lymphoma Malignant																									1		
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically





Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS MALE 100 mg/m3	DAY ON TEST																				* TOTALS					
	079	061	073	072	079	073	072	079	079	079	075	073	074	077	076	077	072	073	070	072		073	071	072	079	
ANIMAL ID	00626	00622	00622	00622	00633	00633	00633	00633	00633	00633	00633	00633	00633	00633	00644	00644	00644	00644	00644	00644	00644	00644	00644	00645	00640	
Larynx	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Sarcoma, Metastatic, Salivary Glands																					X				1	
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymphoma Malignant																									1	
Osteosarcoma, Metastatic, Bone																									1	
Sarcoma, Metastatic, Salivary Glands																					X				1	
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Sarcoma, Metastatic, Salivary Glands																					X				1	
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Sarcoma, Metastatic, Salivary Glands																					X				1	
<b>SPECIAL SENSES SYSTEM</b>																										
Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Sarcoma, Metastatic, Salivary Glands																					X				1	
<b>URINARY SYSTEM</b>																										
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lipoma																							X		1	
Lymphoma Malignant																									1	
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Lymphoma Malignant																							I		1	

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
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M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically



Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

		DAY ON TEST																				females (cont...)			
<b>WISTAR HAN RATS FEMALE</b>	<b>Control</b>	0599	0732	0610	0732	0771	0670	0771	0771	0771	0771	0771	0576	0773	0776	0672	0772	0773	0773	0673	0773		0678	0773	0773
	<b>ANIMAL ID</b>	0010	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011	0011

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Colon	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum	+	+	+	+	I	A	+	+	I	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Mesentery		+					+				+					+				+				
Pancreas	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Stomach, Forestomach Leiomyosarcoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	X	+
Stomach, Glandular Leiomyosarcoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	X	+
Tongue											+													

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 + .. Tissue examined microscopically  
 X .. Lesion present  
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 BLANK .. Not examined microscopically







Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS FEMALE Control	DAY ON TEST																									females (cont...)	
	0599	0732	0610	0733	0771	0670	0771	0771	0771	0771	0771	0573	0773	0663	0773	0773	0773	0773	0773	0678	0778	0773	0673	0773			
ANIMAL ID	0010	0011	0012	0013	0014	0015	0016	0017	0018	0019	0020	0021	0022	0023	0024	0025	0026	0027	0028	0029	0030	0031	0032	0033	0034	0035	
Hemangiosarcoma																										X	
Lymphoma Malignant																											
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Thymoma Benign			X					X		X																	
<b>INTEGUMENTARY SYSTEM</b>																											
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Adenoma																	X				X						
Carcinoma																						X			X		
Carcinoma, Multiple																											
Fibroadenoma																											
Fibroadenoma, Multiple						X						X													X		
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Subcutaneous Tissue, Liposarcoma																											
<b>MUSCULOSKELETAL SYSTEM</b>																											
Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
<b>NERVOUS SYSTEM</b>																											
Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Granular Cell Tumor Benign																										X	
Peripheral Nerve	+																										

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 + .. Tissue examined microscopically  
 X .. Lesion present  
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Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS FEMALE Control	DAY ON TEST																									ANIMAL ID	females (cont...)
	0 5 9 9	0 7 3 2	0 6 1 0	0 7 3 2	0 7 3 1	0 6 9 0	0 7 3 1	0 7 3 1	0 7 3 2	0 7 3 2	0 7 3 1	0 7 3 1	0 5 8 6	0 7 3 3	0 7 3 1	0 6 4 5	0 7 3 2	0 7 3 2	0 7 3 1	0 7 3 3	0 6 9 8	0 7 0 3	0 7 0 3				
Spinal Cord	+																									0 0 1 0 1 2	
<b>RESPIRATORY SYSTEM</b>																											
Larynx	+																										
Lung	+																										
Nose	+																										
Trachea	+																										
<b>SPECIAL SENSES SYSTEM</b>																											
Eye	+																										
Harderian Gland	+																										
<b>URINARY SYSTEM</b>																											
Kidney Renal Tubule, Adenoma	+																										
Urinary Bladder	+																										
<b>SYSTEMIC LESIONS</b>																											
Multiple Organ Lymphoma Malignant	+																										

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 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
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Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
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 Lab: BNW

Wistar Han Rats Female	DAY ON TEST																								* TOTALS			
	0733	0732	0499	0733	0671	0773	0773	0671	0773	0773	0477	0773	0773	0671	0773	0773	0773	0773	0773	0773	0773	0773	0773	0773				
Control	ANIMAL ID																								* TOTALS			
	00126	00127	00128	00129	00130	00131	00132	00133	00134	00135	00136	00137	00138	00139	00140	00141	00142	00143	00144	00145	00146	00147	00148	00149		00150		
Spinal Cord																										+	2	
<b>RESPIRATORY SYSTEM</b>																												
Larynx	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
<b>SPECIAL SENSES SYSTEM</b>																												
Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
<b>URINARY SYSTEM</b>																												
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Renal Tubule, Adenoma																											X	1
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
<b>SYSTEMIC LESIONS</b>																												
Multiple Organ	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Lymphoma Malignant																											X	2

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
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Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
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 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS FEMALE 10 mg/m3	DAY ON TEST																									females (cont...)		
	0733	0730	0633	0638	0638	0431	0732	0732	0536	0733	0733	0733	0733	0733	0733	0733	0733	0733	0733	0638	0631	0733	0733	0733				
ANIMAL ID	003001	003002	003003	003004	003005	003006	003007	003008	003009	003010	003011	003012	003013	003014	003015	003016	003017	003018	003019	003020	003021	003022	003023	003024	003025			
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
<b>ENDOCRINE SYSTEM</b>																												
Adrenal Cortex Adenoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	X			
Adrenal Medulla Pheochromocytoma Malignant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Parathyroid Gland	+	+	+	+	+	M	+	+	+	M	M	+	+	+	+	M	+	+	+	+	+	+	+	+	M			
Pituitary Gland Pars Distalis, Adenoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Thyroid Gland C-cell, Adenoma Follicular Cell, Carcinoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
<b>GENERAL BODY SYSTEM</b>																												
NONE																												
<b>GENITAL SYSTEM</b>																												
Clitoral Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	I	+	M	+	+	M	+

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
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Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

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 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS FEMALE 10 mg/m3	DAY ON TEST																									ANIMAL ID	females (cont...)
	0733	0730	0633	0638	0638	0478	0773	0773	0563	0773	0773	0773	0773	0773	0773	0773	0773	0773	0773	0668	0661	0733	0733	0733	0733		
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Granulosa Cell Tumor Malignant																								X			
Mesothelioma Malignant																								X			
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Polyp Stromal													X														
Endometrium, Adenocarcinoma												X															
Vagina																											
Squamous Cell Carcinoma																									X		
<b>HEMATOPOIETIC SYSTEM</b>																											
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Lymph Node				+																					+		
Lymph Node, Bronchial	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	M	+	M	M	+	+	
Lymph Node, Mandibular	+	+	+	M	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lymph Node, Mediastinal	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	
Lymph Node, Mesenteric Hemangiosarcoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Thymoma Benign	X																										

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically







Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS FEMALE 10 mg/m3	DAY ON TEST																								* TOTALS		
	0732	0732	0627	0732	0630	0731	0771	0771	0663	0573	0773	0773	0663	0553	0668	0668	0734	0574	0773	0773	0633	0633	0772	0772			
ANIMAL ID	00326	00332	00337	00339	00340	00341	00342	00343	00344	00345	00346	00347	00348	00349	00350	00351	00352	00353	00354	00355	00356	00357	00358	00359	00360		
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
<b>ENDOCRINE SYSTEM</b>																											
Adrenal Cortex Adenoma	+	+	+	+	+	+	+	+	X	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 2		
Adrenal Medulla Pheochromocytoma Malignant	+	+	+	+	+	+	+	+	+	+	X	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1		
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	44			
Pituitary Gland Pars Distalis, Adenoma	+	+	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	50 33		
Thyroid Gland C-cell, Adenoma Follicular Cell, Carcinoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 2 1			
<b>GENERAL BODY SYSTEM</b>																											
NONE																											
<b>GENITAL SYSTEM</b>																											
Clitoral Gland	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46			

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

























Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS FEMALE 30 mg/m3	DAY ON TEST																								* TOTALS		
	0732	0732	0733	0733	0735	0735	0736	0736	0738	0738	0739	0739	0739	0739	0739	0739	0739	0739	0739	0739	0739	0739	0739	0739			
ANIMAL ID	00526	00527	00528	00529	00530	00531	00532	00533	00534	00535	00536	00537	00538	00539	00540	00541	00542	00543	00544	00545	00546	00547	00548	00549	00550		
Clitoral Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Ovary Granulosa Cell Tumor Benign	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1		
Uterus Fibroma Leiomyoma Polyp Stromal Endometrium, Adenocarcinoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1 1 3 1		
<b>HEMATOPOIETIC SYSTEM</b>																											
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Lymph Node																									1		
Lymph Node, Bronchial	+	+	M	+	+	+	M	+	+	M	+	M	+	M	M	M	+	+	+	M	+	M	+	M	+	32	
Lymph Node, Mandibular	+	+	+	M	+	+	+	+	+	+	+	+	M	I	M	+	+	+	+	+	+	M	+	+	+	43	
Lymph Node, Mediastinal	+	M	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	M	+	+	+	M	+	+	+	45	
Lymph Node, Mesenteric Hemangiosarcoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Thymus Thymoma Benign	+	+	+	+	+	+	+	+	+	M	+	+	+	+	M	+	+	+	+	+	+	+	M	+	+	45 7	

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically



Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS FEMALE	DAY ON TEST																						* TOTALS				
	0732	0732	0731	0735	0733	0731	0731	0731	0731	0731	0731	0731	0731	0731	0731	0731	0731	0731	0731	0731	0731	0731		0731	0731		
30 mg/m3	ANIMAL ID																										
	00526	00527	00528	00529	00530	00531	00532	00533	00534	00535	00536	00537	00538	00539	00540	00541	00542	00543	00544	00545	00546	00547	00548	00549	00550		
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
<b>SPECIAL SENSES SYSTEM</b>																											
Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
<b>URINARY SYSTEM</b>																											
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
<b>SYSTEMIC LESIONS</b>																											
Multiple Organ	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

		DAY ON TEST																				females (cont...)			
<b>WISTAR HAN RATS FEMALE</b>		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	
		7	7	7	6	7	7	6	5	7	7	7	7	6	7	7	6	7	7	7	6		7	5	6
		1	3	0	3	3	3	6	2	1	0	3	3	3	3	9	3	3	3	3	3	3	8	7	3
<b>100 mg/m3</b>		5	1	3	3	2	2	3	3	7	3	3	1	5	1	2	1	2	3	5	3	0	1	6	9
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+
Intestine Large, Rectum	+	I	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	I	A	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Mesentery					+																			
Oral Mucosa																								+
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Adenocarcinoma, Metastatic, Uterus																								
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

		DAY ON TEST																				females (cont...)				
<b>WISTAR HAN RATS FEMALE</b>		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0		
		7	7	7	6	7	7	6	5	7	7	7	7	6	7	7	6	7	7	7	6		7	5	6	6
<b>100 mg/m3</b>		1	3	0	3	3	3	6	2	1	0	3	3	3	3	9	3	3	3	3	3	3	8	7	3	
		5	1	3	3	2	2	3	3	7	3	3	1	5	1	2	1	2	3	5	3	0	1	6	9	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

**CARDIOVASCULAR SYSTEM**

Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

**ENDOCRINE SYSTEM**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Adenoma			X																						
Adrenal Medulla	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Parathyroid Gland	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	M	+	+	+	+	+	+	+
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Pars Distalis, Adenoma		X	X				X		X	X	X					X	X	X	X	X		X	X	X	X
Pars Intermedia, Adenoma					X																				
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+
C-cell, Adenoma														X								X		X	
C-cell, Carcinoma																X									
Follicular Cell, Adenoma																									

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS FEMALE 100 mg/m3	DAY ON TEST																									ANIMAL ID	females (cont...)
	0715	0713	0703	0633	0733	0772	0663	0553	0777	0777	0777	0667	0777	0667	0777	0667	0777	0777	0723	0773	0663	0773	0556	0766	0666		
	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00715	

Clitoral Gland	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Ovary Granulosa Cell Tumor Malignant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Uterus Polyp Stromal	+	+	+	+	X	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Polyp Stromal, Multiple																							X		
Sarcoma Stromal, Multiple	X																								
Endometrium, Adenocarcinoma																									
Endometrium, Malignant Mixed Mullerian Tumor																									
Vagina Polyp																									

**HEMATOPOIETIC SYSTEM**

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lymph Node, Bronchial	M	+	M	M	+	M	M	+	+	+	+	+	M	M	M	+	+	+	+	+	M	+	+	+	
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lymph Node, Mediastinal	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	M	+
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Thymus	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically







Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

		DAY ON TEST																								* TOTALS
WISTAR HAN RATS FEMALE		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
100 mg/m3		7	7	7	7	6	6	7	7	7	7	7	7	6	7	7	7	7	7	7	7	7	7	7	7	
ANIMAL ID		3	3	3	2	8	7	3	3	3	3	3	3	4	3	1	3	3	3	3	3	3	3	3	2	
		2	3	0	5	1	3	1	2	3	3	2	3	5	1	9	1	1	2	1	3	1	1	2	2	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		2	2	2	2	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	5	
		6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	I	+	+	+	+	+	+	+	+	46
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Mesentery						+	+				+						+								5
Oral Mucosa																									1
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Adenocarcinoma, Metastatic, Uterus																							X		1
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

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Experiment Number: 20515 - 03  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Metal working fluids (CIMSTAR 3800)  
 CAS Number: CIMSTAR3800

Date Report Requested: 02/18/2014  
 Time Report Requested: 12:32:34  
 First Dose M/F: 04/14/08 / 04/14/08  
 Lab: BNW

WISTAR HAN RATS FEMALE	DAY ON TEST																								* TOTALS
	0732	0733	0730	0735	0761	0763	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	
100 mg/m3	00726	00727	00728	00729	00730	00731	00732	00733	00734	00735	00736	00737	00738	00739	00740	00741	00742	00743	00744	00745	00746	00747	00748	00749	50

**CARDIOVASCULAR SYSTEM**

Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

**ENDOCRINE SYSTEM**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Adenoma																									1
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Parathyroid Gland	+	+	+	+	M	+	M	+	+	M	+	+	+	M	+	+	+	+	+	+	+	+	I	+	42
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Pars Distalis, Adenoma	X		X	X		X			X	X	X		X	X		X			X			X	X	X	30
Pars Intermedia, Adenoma																						X			2
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
C-cell, Adenoma										X															4
C-cell, Carcinoma											X											X			3
Follicular Cell, Adenoma															X										1

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

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 Lab: BNW

WISTAR HAN RATS FEMALE 100 mg/m3	DAY ON TEST																								* TOTALS
	0732	0733	0730	0732	0738	0736	0737	0737	0737	0737	0737	0737	0737	0737	0737	0737	0737	0737	0737	0737	0737	0737	0737	0737	
ANIMAL ID	00726	00707	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	
Clitoral Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Ovary Granulosa Cell Tumor Malignant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1	
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Polyp Stromal				X																	X			3	
Polyp Stromal, Multiple																								1	
Sarcoma Stromal, Multiple																								1	
Endometrium, Adenocarcinoma																		X		X				2	
Endometrium, Malignant Mixed Mullerian Tumor															X									1	
Vagina																								1	
Polyp																								1	
<b>HEMATOPOIETIC SYSTEM</b>																									
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymph Node, Bronchial	+	+	+	+	M	+	+	+	M	+	+	+	M	+	M	+	M	+	+	M	+	+	+	35	
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	49	
Lymph Node, Mediastinal	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	I	+	+	+	+	+	47	
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	M	+	I	+	+	I	+	M	+	+	+	45	

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	0732	0733	0730	0725	0761	0763	0777	0777	0777	0777	0777	0777	0777	0766	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	
ANIMAL ID	00726	00707	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	00700	

Thymoma Benign

3

**INTEGUMENTARY SYSTEM**

Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Adenoma	X																								1
Carcinoma																									3
Carcinoma, Multiple																									1
Fibroadenoma				X						X			X		X										8
Fibroadenoma, Multiple	X							X																	2
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Keratoacanthoma																									1
Squamous Cell Papilloma	X					X												X							3
Subcutaneous Tissue, Lipoma															X										1

**MUSCULOSKELETAL SYSTEM**

Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
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**NERVOUS SYSTEM**

Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Granular Cell Tumor Benign													X												1
Granular Cell Tumor Malignant					X																				2
Oligodendroglioma Malignant																									1
Peripheral Nerve															+		+								6
Spinal Cord															+		+								6

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	07326	07330	07335	07340	07345	07350	07355	07360	07365	07370	07375	07380	07385	07390	07395	07400	07405	07410	07415	07420	07425	07430	07435	07440	
ANIMAL ID	00726	00727	00728	00729	00730	00731	00732	00733	00734	00735	00736	00737	00738	00739	00740	00741	00742	00743	00744	00745	00746	00747	00748	00749	

**RESPIRATORY SYSTEM**

Larynx	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Lung Alveolar/Bronchiolar Adenoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	X	+	50 1
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

**SPECIAL SENSES SYSTEM**

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Zymbal's Gland																									1

**URINARY SYSTEM**

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

**SYSTEMIC LESIONS**

Multiple Organ	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
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\*\*\* END OF REPORT \*\*\*

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