Table 2.9

HAEMATOLOGY - GROUP MEAN VALUES (TERMINAL)

Concentration: G I - 0; G II - 0.238; G III - 0.694; GIV - 1.202 mg/L air **Sex: Male**

Parameter	Main Groups							
	Control		Low		Intermediate		High	
	G I (N=5)		G II (N=5)		G III (N=5)		G IV (N=5)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
WBC ($x10^3/\mu L$)	8.2	1.5	10.1	3.0	7.4	1.4	8.2	0.7
RBC ($x10^6/\mu L$)	7.8	0.8	8.0	0.4	8.0	0.2	7.8	0.3
HGB (g/dL)	15.6	2.0	16.7	0.6	16.7	0.5	16.2	0.3
HCT (%)	41.3	4.5	42.5	1.6	41.8	0.9	40.7	1.3
MCV (fL)	52.9	1.5	53.2	2.3	52.0	1.4	51.9	0.5
MCH (pg)	20.0	1.2	21.0	1.3	20.8	0.6	20.7	0.5
MCHC (g/dL)	37.8	1.3	39.4	1.1	39.9	0.6	39.9	0.8
PLT (x 10 / µL)	714.0	74.0	832.8	57.7	795.8	129.5	747.6	75.6

Concentration: G I - 0; G II - 0.238; G III - 0.694; G IV - 1.202 mg/L air **Sex: Female**

Parameter	Main Groups							
	Control		Low		Intermediate		High	
	(N=5)		G II (N=5)		G III (N=5)		G IV (N=4)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
WBC ($x10^3/\mu L$)	9.6	1.4	8.4	1.2	7.7	1.2	6.9	1.4
RBC ($x10^6/\mu L$)	7.9	0.2	7.7	0.4	7.3	0.3	7.6	0.3
HGB (g/dL)	15.3	0.5	15.6	0.7	15.2	0.5	15.5	0.5
HCT (%)	39.7	0.9	39.1	1.6	37.5	1.1	38.2	1.4
MCV (fL)	50.6	1.2	50.8	1.1	51.1	0.7	50.3	0.7
MCH (pg)	19.6	0.8	20.3	0.8	20.7	0.3	20.4	0.3
MCHC (g/dL)	38.7	1.2	39.9	0.9	40.5	0.7	40.5	0.7
PLT (x 10 / µL)	795.2	41.4	922.6	74.9	844.0	79.2	896.6	52.2

Table 2.10

HAEMATOLOGY - GROUP MEAN VALUES (RECOVERY)

Concentration: G V - 0; G VI – 1.202 mg/L air **Sex: Male**

Parameter	Recovery Groups			
	Control		Intermediate	
	G V (N=5)		G VI (N=5)	
	Mean	SD	Mean	SD
WBC (x10^3/µL)	8.9	1.9	6.7	0.8
RBC (x10^6/µL)	8.7	0.3	8.2	0.4
HGB (g/dL)	16.9	0.8	16.6	0.8
HCT (%)	45.1	2.2	43.5	3.2
MCV (fL)	51.6	1.6	52.7	1.4
MCH (pg)	19.4	0.6	20.1	0.2
MCHC (g/dL)	37.6	0.8	38.1	1.2
PLT (x 10 / µL)	842.0	130.5	842.6	65.3

Concentration: G V - 0; G VI – 1.202 mg/L air **Sex: Female**

Parameter	Recovery Groups			
	Control		Intermediate	
	G V (N=5)		G VI (N=5)	
	Mean	SD	Mean	SD
WBC (x10^3/µL)	9.4	1.6	8.4	1.8
RBC (x10^6/µL)	8.8	0.2	8.7	0.4
HGB (g/dL)	16.2	0.5	16.3	0.8
HCT (%)	44.7	1.6	44.5	1.6
MCV (fL)	50.8	0.7	51.0	1.2
MCH (pg)	18.4	0.3	18.7	0.8
MCHC (g/dL)	36.2	0.3	36.7	0.9
PLT (x 10 / µL)	972.6	91.3	919.2	57.5

Table 2.11

CLINICAL CHEMISTRY - GROUP MEAN VALUES (TERMINAL)

Concentration: G I - 0; G II - 0.238; G III - 0.694; G IV - 1.202 mg/L air **Sex: Male**

Parameter	Main Groups							
	Control		Low		Intermediate		High	
	G I (N=5)		G II (N=5)		G III (N=5)		G IV (N=5)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
GLU (mg/dL)	113.1	31.7	100.2	17.2	113.0	11.0	124.2	13.6
ALT (IU/L)	39.7	3.5	38.8	7.0	46.2	18.1	42.6	7.4
AST (IU/L)	127.2	22.8	147.6	13.6	124.4	20.9	141.7	41.3
T.BIL (mg/dL)	0.2	0.0	0.1	0.0	0.1	0.0	0.1	0.1
CRE (mg/dL)	0.5	0.3	0.5	0.1	0.4	0.1	0.5	0.1
BUN (mg/dL)	23.0	3.8	21.1	2.6	22.0	3.2	24.0	4.7
T.PRO (g/dL)	6.7	0.2	6.3	0.5	6.4	0.3	6.3	0.2
ALB (g/dL)	4.8	0.1	4.5	0.2	4.5	0.2	4.7	0.2
GLB (g/dL)	1.9	0.2	1.8	0.3	1.8	0.4	1.7	0.3
ALB : GLB	2.6	0.4	2.6	0.3	2.6	0.6	2.9	0.5
PHO (mg/dL)	5.6	0.4	6.0	0.5	6.0	0.5	6.0	0.4
CHO (mg/dL)	73.2	10.0	73.3	8.6	74.1	7.2	70.1	9.7
UREA (mg/dL)	49.2	8.2	45.2	5.5	47.1	6.9	51.3	10.1
ALP (IU/L)	122.9	30.1	109.0	26.3	100.5	22.1	104.2	25.1
CK (IU/L)	644.8	302.8	692.7	227.9	623.8	236.3	638.6	427.7
CHE (IU/L)	108.5	50.7	21.1↓	12.5	20.8↓	5.9	22.2↓↓	12.8

Table 2.11 (continued)

Concentration: G I - 0; G II - 0.238; G III - 0.694; G IV - 1.202 mg/L air **Sex: Female**

Parameter	Main Groups							
	Control		Low		Intermediate		High	
	G I (N=5)		G II (N=5)		G III (N=5)		G IV (N=5)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
GLU (mg/dL)	105.7	24.6	102.4	11.4	117.4	19.9	103.4	11.3
ALT (IU/L)	37.5	5.4	35.9	3.6	43.2	6.3	35.7	5.4
AST (IU/L)	119.6	7.1	111.1	9.2	123.5	16.9	121.4	10.2
T.BIL (mg/dL)	0.1	0.0	0.2	0.0	0.2↑↑	0.0	0.1	0.0
CRE (mg/dL)	0.4	0.1	0.4	0.2	0.5	0.2	0.6	0.1
BUN (mg/dL)	20.2	3.3	21.8	3.3	25.4	5.1	21.9	3.2
T.PRO (g/dL)	6.9	0.3	6.8	0.4	6.8	0.4	6.7	0.4
ALB (g/dL)	4.5	0.2	4.4	0.2	4.7	0.1	4.4	0.2
GLB (g/dL)	2.3	0.3	2.4	0.3	2.1	0.3	2.2	0.2
ALB : GLB	2.0	0.3	1.8	0.2	2.4	0.5	2.0	0.2
PHO (mg/dL)	5.2	0.6	5.4	0.9	5.9	0.6	5.4	0.7
CHO (mg/dL)	72.0	10.2	81.6	5.8	86.5	7.6	81.7	14.3
UREA (mg/dL)	43.3	7.0	46.6	7.0	54.3	11.0	46.8	6.8
ALP (IU/L)	85.5	20.6	111.6	73.5	120.5	31.3	121.0	36.1
CK (IU/L)	543.2	92.9	465.7	131.0	662.1	378.0	513.7	112.9
CHE (IU/L)	438.8	117.7	211.3↓↓	48.7	206.9↓↓	76.7	40.7↓↓	32.9

Table 2.12

CLINICAL CHEMISTRY - GROUP MEAN VALUES (RECOVERY)

Concentration: G V - 0; G VI – 1.202 mg/L air **Sex: Male**

Parameter	Recovery Groups			
	Control		Intermediate	
	G V (N=5)		G VI (N=5)	
	Mean	SD	Mean	SD
GLU (mg/dL)	106.3	14.3	84.2	6.9
ALT (IU/L)	51.6	24.6	73.5	44.4
AST (IU/L)	132.5	27.5	160.6	51.6
T.BIL (mg/dL)	0.0	0.0	0.0	0.0
CRE (mg/dL)	1.1	0.1	1.1	0.1
BUN (mg/dL)	25.3	1.3	23.4	3.2
T.PRO (g/dL)	9.1	0.2	8.8	0.3
ALB (g/dL)	4.7	0.2	4.5	0.1
GLB (g/dL)	4.4	0.2	4.3	0.2
ALB : GLB	1.1	0.1	1.0*↓↓	0.0
PHO (mg/dL)	6.2	0.3	5.7*↓	0.4
CHO (mg/dL)	72.8	11.6	79.5	11.7
UREA (mg/dL)	54.1	2.8	50.2	6.9
ALP (IU/L)	118.9	21.8	90.9	17.0
CK (IU/L)	793.4	112.7	849.2	235.4
CHE (IU/L)	82.0	29.3	73.4	18.4

Table 2.12 (continued)

Concentration: G V - 0; G VI – 1.202 mg/L air **Sex: Female**

Parameter	Recovery Groups			
	Control		Intermediate	
	G V (N=5)		G VI (N=5)	
	Mean	SD	Mean	SD
GLU (mg/dL)	103.6	17.5	91.4	18.7
ALT (IU/L)	35.6	7.0	33.1	6.0
AST (IU/L)	120.2	12.8	126.1	27.4
T.BIL (mg/dL)	0.0	0.0	0.0	0.0
CRE (mg/dL)	1.0	0.1	1.1	0.0
BUN (mg/dL)	22.4	3.1	23.8	5.1
T.PRO (g/dL)	7.5	0.3	7.9	0.2
ALB (g/dL)	4.0	0.2	4.4	0.2
GLB (g/dL)	3.5	0.2	3.5	0.2
ALB : GLB	1.1	0.1	1.2	0.1
PHO (mg/dL)	5.1	0.5	5.5	0.3
CHO (mg/dL)	68.0	4.0	80.0	10.7
UREA (mg/dL)	48.0	6.7	51.0	10.9
ALP (IU/L)	72.2	8.7	95.7	42.5
CK (IU/L)	671.9	222.7	755.8	297.2
CHE (IU/L)	566.5	145.4	279.3	86.6

Table 2.13

URINE ANALYSIS - SUMMARY BY GROUPS (TERMINAL)

Concentration: G I - 0; G II - 0.238; G III - 0.694; G IV - 1.202 mg/L air **Sex: Male**

Parameter		Main Groups			
		Control	Low	Intermediate	High
		G I (N=5)	G II (N=5)	G III (N=5)	G IV (N=5)
Specific Gravity	Mean	1.026	1.023	1.021	1.023
	SD	0.005	0.008	0.007	0.008
pH	Mean	6.600	6.500	6.400	6.600
	SD	0.418	0.354	0.224	0.418
Blood	Negative	4	3	3	2
	Trace Intact	1	2	2	3
Glucose (mg/dL)	Negative	5	5	5	5
Bilirubin	Negative	5	5	5	5
	Small	0	0	0	0
Ketone (mg/dL)	Negative	1	1	1	1
	Trace	4	4	4	4
Protein (mg/dL)	Negative	0	0	1	0
	Trace	5	5	4	5
Urobilinogen (E.U./dL)	Mean	0.2	0.2	0.2	0.2
	SD	0	0	0	0

Table 2.13 (continued)

Concentration: G I - 0; G II - 0.238; G III - 0.694; G IV - 1.202 mg/L air **Sex: Female**

Parameter		Main Groups			
		Control	Low	Intermediate	High
		G I (N=5)	G II (N=5)	G III (N=5)	G IV (N=5)
Specific Gravity	Mean	1.020	1.019	1.029	1.018
	SD	0.010	0.010	0.002	0.008
pH	Mean	6.800	6.375	6.300	6.900
	SD	0.274	0.479	0.274	0.224
Blood	Negative	4	2	5	4
	Trace Intact	1	3	0	1
Glucose (mg/dL)	Negative	5	5	5	5
Bilirubin	Negative	5	4	5	5
	Small	0	1	0	0
Ketone (mg/dL)	Negative	3	3	1	4
	Trace	2	2	4	1
Protein (mg/dL)	Negative	2	3	0	3
	Trace	3	2	5	2
Urobilinogen (E.U./dL)	Mean	0.2	0.2	0.2	0.2
	SD	0	0	0	0

Table 2.14

URINE ANALYSIS - SUMMARY BY GROUPS (RECOVERY)

Concentration: G V - 0; G VI – 1.202 mg/L air **Sex: Male**

Parameter		Recovery Groups	
		Control	High Concentration
		G V (N=5)	G VI (N=5)
Specific Gravity	Mean	1.026	1.018
	SD	0.009	0.010
pH	Mean	6.400	6.400
	SD	0.418	0.822
Blood	Negative	2	3
	Trace Intact	3	2
Glucose (mg/dL)	Negative	5	5
Bilirubin	Negative	1	4
	Small	4	1
Ketone (mg/dL)	Negative	1	3
	Trace	4	2
Protein (mg/dL)	Negative	1	2
	Trace	4	3
Urobilinogen (E.U./dL)	Mean	0.2	0.2
	SD	0	0

Table 2.14 (continued)

Concentration: G V - 0; G VI – 1.202 mg/L air **Sex: Female**

Parameter		Recovery Groups	
		Control	High Concentration
		G V (N=5)	G VI (N=5)
Specific Gravity	Mean	1.019	1.021
	SD	0.007	0.007
pH	Mean	6.800	6.600
	SD	0.274	0.418
Blood	Negative	5	2
	Trace Intact	0	3
Glucose (mg/dL)	Negative	5	5
Bilirubin	Negative	5	5
	Small	0	0
Ketone (mg/dL)	Negative	3	5
	Trace	2	0
Protein (mg/dL)	Negative	0	0
	Trace	5	5
Urobilinogen (E.U./dL)	Mean	0.2	0.2
	SD	0	0

Table 2.15

SUMMARY OF PATHOLOGICAL (GROSS AND MICROSCOPIC) FINDINGS - GROUP WISE

Group & Dose		**MAIN GROUPS**							
		G I (0 mg/L air)		**G II (0.238 mg/L air)**		**G III (0.694 mg/L air)**		**G IV (1.202 mg/L air)**	
Organs & Lesions	**Sex**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**
	N° of Animals	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
MACROSCOPIC EXAMINATION									
External and Internal	NAD								
MICROSCOPIC EXAMINATION									
Liver									
Infiltration,MNC, Perivascular		3	0	X	X	X	X	0	0
Oval cell proliferation, Perivascular		1	0	X	X	X	X	0	0
Degeneration/MNC infiltration, Hepatocytes		0	0	X	X	X	X	1	0
Kidneys									
Hyperplasia, Urothelium		0	1	X	X	X	X	0	0
Basophilic tubules, Cortex		0	2	X	X	X	X	0	0
Infiltration, MNC, Perivascular		0	1	X	X	X	X	0	0
Tubular Dilatation		0	1	X	X	X	X	2	1
Pelvis Dilatation		0	0	X	X	X	X	0	1
Lungs									
Hemorrhage, Alveolar		1	0	X	X	X	X	0	0
Infiltration, MNC, Perivascular		1	1	X	X	X	X	0	0
Alveolar Histiocytosis with Foamy Macrophages		0	1	X	X	X	X	0	1
Inflammatory Foci with Foamy Macrophages		0	1	X	X	X	X	0	0
Foamy Macrophages		0	0	X	X	X	X	0	1
Hyperplasia, BALT		0	0	X	X	X	X	0	1
Hyperplasia, Bronchiole epithelium		0	0	X	X	X	X	1	0
Infiltration, inflammatory cells		0	0	X	X	X	X	0	0

Table 15 (continued)

Group & Dose		G I (0 mg/L air)		G II (0.238 mg/L air)		G III (0.694 mg/L air)		G IV (1.202 mg/L air)	
		MAIN GROUPS							
Organs & Lesions	**Sex**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**
	N° of Animals	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
Heart									
Degeneration, Endocardium		0	0	X	X	X	X	1	0
Cardiomyopathy, Papillary muscle		1	0	X	X	X	X	0	0
Larynx									
Inflammation, Acute		0	0	X	X	X	X	1	0
Hyperplasia, Respiratory Epithelium		0	1	X	X	X	X	0	0
Infiltration, MNC, Sub epithelial		0	1	X	X	X	X	0	0
Tubular Dilatation		0	0	X	X	X	X	0	0
Pelvis Dilatation		0	0	X	X	X	X	0	0
Nasal cavity									
Inflammation, Acute		0	0	X	X	X	X	0	0
Degeneration, Respiratory Epithelium, Nasal Septum		0	0	X	X	X	X	0	0
Inflammatory cell infiltration, Respiratory Epithelium, Nasal Septum		0	0	X	X	X	X	0	0
Degeneration/Leukocyte cell infiltration, Olfactory Epithelium, Nasal Septum		0	0	X	X	X	X	0	0
Trachea									
Infiltration, MNC, Sub epithelial		0	1	X	X	X	X	0	0

Note: Organs not included in table did not reveal any gross and histopathological findings.
'X' = Organs not examined as per plan / sex difference