PA48: Blood and Tissue Concentration

Study Number: 108020006
Test Type: 5-Day Toxicity
Route: Whole-Body Inhalation
Species/Strain: Rat/Harlan Sprague Dawley

Test Compound: 1,2-Dichlorobenzene
CAS Number: 95-50-1
DTXSID: DTXSID6020430

Date: 10 Oct 2025
Time: 8:38:27 AM

Female SD 4

	Treatment Group (ppm)						
	0	1	10	30	100	250	500
Blood							
Blood Concentration (ng/mL)	BD	11.1 ± 0.742[3]	80.6 ± 11.9[3]	216 ± 9.07[3]	816 ± 18.4[3]	19500 ± 700[3]	98300 ± 16700[3]
Normalized Blood Concentration ((ng/mL)/(mg/kg))	NA	6.86 ± 0.458[3]	5.01 ± 0.740[3]	4.46 ± 0.187[3]	5.03 ± 0.113[3]	48.4 ± 1.74[3]	122 ± 20.6[3]
Normalized Blood Concentration ((ng/mL)/ppm)	NA	11.1 ± 0.742[3]	8.06 ± 1.19[3]	7.20 ± 0.302[3]	8.16 ± 0.184[3]	78.0 ± 2.80[3]	197 ± 33.3[3]
Liver							
Liver Concentration (ng/g)	BD	15.4 ± 1.82[3]	77.7 ± 18.3[3]	237 ± 17.5[3]	881 ± 57.0[3]	36000 ± 4720[3]	213000 ± 45200[3]
Normalized Liver Concentration ((ng/g)/(mg/kg))	NA	9.54 ± 1.12[3]	4.82 ± 1.14[3]	4.89 ± 0.361[3]	5.43 ± 0.352[3]	89.4 ± 11.7[3]	264 ± 55.9[3]
Normalized Liver Concentration ((ng/g)/ppm)	NA	15.4 ± 1.82[3]	7.77 ± 1.83[3]	7.90 ± 0.582[3]	8.81 ± 0.570[3]	144 ± 18.9[3]	427 ± 90.5[3]
Lung							
Lung Concentration (ng/g)	BD	18.1 ± 4.45[3]	63.0 ± 20.0[3]	543 ± 187[3]	1120 ± 306[3]	7410 ± 1770[3]	95400 ± 54300[3]
Normalized Lung Concentration ((ng/g)/(mg/kg))	NA	11.2 ± 2.75[3]	3.91 ± 1.24[3]	11.2 ± 3.87[3]	6.92 ± 1.89[3]	18.4 ± 4.39[3]	118 ± 67.1[3]
Normalized Lung Concentration ((ng/g)/ppm)	NA	18.1 ± 4.45[3]	6.30 ± 2.00[3]	18.1 ± 6.24[3]	11.2 ± 3.06[3]	29.6 ± 7.08[3]	191 ± 109[3]

PA48: Blood and Tissue Concentration

Study Number: 108020006
Test Type: 5-Day Toxicity
Route: Whole-Body Inhalation
Species/Strain: Rat/Harlan Sprague Dawley

Test Compound: 1,2-Dichlorobenzene
CAS Number: 95-50-1
DTXSID: DTXSID6020430

Date: 10 Oct 2025
Time: 8:38:27 AM

Female SD 5

	Treatment Group (ppm)						
	0	1	10	30	100	250	500
Blood							
Blood Concentration (ng/mL)	BD	BD	0.491 ± 0.104[3]	1.25 ± 0.379[3]	6.80 ± 0.586[3]	41.1 ± 4.05[3]	434 ± 155[3]
Normalized Blood Concentration ((ng/mL)/(mg/kg))	NA	BD	0.0305 ± 0.00647[3]	0.0258 ± 0.00782[3]	0.0419 ± 0.00361[3]	0.102 ± 0.0101[3]	0.537 ± 0.192[3]
Normalized Blood Concentration ((ng/mL)/ppm)	NA	BD	0.0491 ± 0.0104[3]	0.0416 ± 0.0126[3]	0.0680 ± 0.00586[3]	0.164 ± 0.0162[3]	0.868 ± 0.310[3]
Liver							
Liver Concentration (ng/g)	BD	BD	1.10 ± 0.519[3]	1.65 ± 0.124[3]	6.92 ± 0.698[3]	24.3 ± 2.11[3]	156 ± 65.8[3]
Normalized Liver Concentration ((ng/g)/(mg/kg))	NA	BD	0.0680 ± 0.0322[3]	0.0340 ± 0.00257[3]	0.0427 ± 0.00431[3]	0.0603 ± 0.00523[3]	0.193 ± 0.0813[3]
Normalized Liver Concentration ((ng/g)/ppm)	NA	BD	0.110 ± 0.0519[3]	0.0549 ± 0.00415[3]	0.0692 ± 0.00698[3]	0.0972 ± 0.00843[3]	0.313 ± 0.132[3]
Lung							
Lung Concentration (ng/g)	BD	BD	BD	1.32 ± 0.692[3]	6.57 ± 2.24[3]	24.2 ± 7.02[3]	231 ± 114[3]
Normalized Lung Concentration ((ng/g)/(mg/kg))	NA	BD	BD	0.0272 ± 0.0143[3]	0.0405 ± 0.0138[3]	0.0599 ± 0.0174[3]	0.286 ± 0.141[3]
Normalized Lung Concentration ((ng/g)/ppm)	NA	BD	BD	0.0439 ± 0.0231[3]	0.0657 ± 0.0224[3]	0.0967 ± 0.0281[3]	0.462 ± 0.227[3]

PA48: Blood and Tissue Concentration

Study Number: 108020006
Test Type: 5-Day Toxicity
Route: Whole-Body Inhalation
Species/Strain: Rat/Harlan Sprague Dawley

Test Compound: 1,2-Dichlorobenzene
CAS Number: 95-50-1
DTXSID: DTXSID6020430

Date: 10 Oct 2025
Time: 8:38:27 AM

LEGEND

Theoretical doses estimated for 1, 10, 30, 100, 250, and 500 ppm exposure concentration are 1.62, 16.11, 48.42, 162.13, 403.23 and 808.75 mg/kg respectively.

Data are displayed as mean ± SEM (N) unless otherwise noted.

SD = Study Day

If over 20% of the animals in a group were above the limit of detection, then 1/2 the limit of detection value was substituted for values that were below the limit of detection.

When the control group did not have over 20% of its values above the limit of detection, no mean or standard error were calculated and no statistical analysis was done for the endpoint.

Normalized values were calculated by dividing the absolute measurement by either inhaled dose (mg/kg/day) or nominal exposure concentration (ppm). No statistical analysis was performed on normalized endpoints.

Statistical analysis was performed by Jonckheere (trend) and Shirley or Dunn (pairwise) tests.

Statistical significance for the control group indicates a significant trend test.

Statistical significance for a treatment group indicates a significant pairwise test compared to the vehicle control group.

* Statistically significant at $p \leq 0.05$

** Statistically significant at $p \leq 0.01$

One Blood 1,2-DCB Concentration in the 0 ppm group on SD 4 and associated normalized endpoints were excluded from analysis as outliers.

One Blood 1,2-DCB Concentration in the 1 ppm group on SD 5 and associated normalized endpoints were excluded from analysis as outliers.

One Lung 1,2-DCB Concentration in the 10 ppm group on SD 5 and associated normalized endpoints were excluded from analysis as outliers.

BD - Group did not have over 20% of its values above the limit of detection.

NA - Not Available.

** END OF REPORT **