

Experiment Number: Multiple

Test Type: TOX

Route: Oral Gavage

Species/Strain: Rat/Harlan Sprague Dawley

C Number:

Multiple

Study Gender:

Male

PA43X: Hematology Summary

Test Compound: Flame Retardants

CAS Number: N/A

Date Report Requested: 04/17/2019

Time Report Requested: 08:52:40

Lab: NTP

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Lab: NTP

Hematocrit (%)

Treatment Groups (umol/kg)

Test Article	0		0.1		1		10	
	Mean	% of Control	Mean	% of Control	Mean	% of Control	Mean	% of Control
PBDE-47	51.8 ± 2.0 (4)	96.2	49.8 ± 1.2 (5)	96.2	38.0 ± 8.8 (5) *	73.4	49.3 ± 0.3 (5)	95.2
decaBDE	50.8 ± 2.2 (6)	102.8	52.3 ± 5.8 (2)	102.8	50.4 ± 2.2 (6)	99.1	48.1 ± 1.6 (6)	94.7
HBCD	50.7 ± 1.8 (5)	100.2	50.8 ± 1.2 (6)	100.2	52.3 ± 2.2 (6)	103.1	50.1 ± 0.9 (6)	98.8
TBB	51.8 ± 3.8 (4)	92.8	48.1 ± 0.8 (6)	92.8	49.7 ± 1.8 (6)	96.0	51.0 ± 3.0 (5)	98.5
TBPH	51.0 ± 1.0 (6)	93.2	47.6 ± 0.5 (6)	93.2	51.0 ± 2.3 (6)	99.9	51.1 ± 1.7 (6)	100.1
TBBPA-DBPE	49.7 ± 0.9 (6)	113.0	56.2 ± 2.2 (6) *	113.0	53.3 ± 1.6 (6) *	107.1	55.7 ± 1.9 (6) *	112.0
BTBPE	49.4 ± 1.7 (6) *	100.3	49.6 ± 0.4 (6)	100.3	49.1 ± 0.6 (6)	99.3	49.9 ± 2.3 (6)	101.0
DBDPE	49.1 ± 1.3 (6)	98.7	48.5 ± 1.0 (6)	98.7	49.1 ± 1.5 (6)	99.9	48.0 ± 2.2 (6)	97.8
HCDBCO	50.6 ± 2.5 (5)	97.5	49.4 ± 1.7 (5)	97.5	49.9 ± 1.2 (6)	98.6	50.8 ± 2.1 (6)	100.3

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Hematocrit (%)

Treatment Groups (umol/kg)

Test Article	100		1000	
	Mean	% of Control	Mean	% of Control
PBDE-47	50.0 ± 2.0 (6)	96.6	49.6 ± 1.7 (6)	95.7
decaBDE	50.1 ± 2.6 (5)	98.6	52.7 ± 1.7 (5)	103.8
HBCD	50.6 ± 1.0 (6)	99.8	51.2 ± 1.2 (6)	100.9
TBB	46.5 ± 1.0 (6)	89.8	47.7 ± 0.6 (6)	92.1
TBPH	50.4 ± 2.2 (5)	98.8	49.9 ± 0.5 (6)	97.8
TBBPA-DBPE	52.0 ± 0.9 (6)	104.6	54.4 ± 1.4 (6)	109.3
BTBPE	52.9 ± 2.1 (6)	107.0	51.6 ± 0.8 (5)	104.5
DBDPE	48.1 ± 0.7 (6)	98.0	50.4 ± 1.5 (5)	102.7
HCDBCO	50.4 ± 2.3 (6)	99.6	48.4 ± 1.2 (6)	95.6

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Manual Hematocrit (%)

Treatment Groups (umol/kg)

Test Article	0			0.1		1		10	
	Mean	Mean	% of Control	Mean	% of Control	Mean	% of Control	Mean	% of Control
PBDE-47	51.0 ± 1.4 (4)	51.8 ± 3.3 (5)	101.6	46.4 ± 0.7 (5) *	91.0	49.0 ± 0.6 (5)	96.1		
decaBDE	49.3 ± 2.0 (6)	48.7 ± 4.2 (3)	98.6	48.7 ± 2.1 (6)	98.6	47.0 ± 1.6 (6)	95.3		
HBCD	49.2 ± 1.7 (5)	49.0 ± 1.0 (6)	99.6	51.3 ± 2.0 (6)	104.3	49.5 ± 0.8 (6)	100.6		
TBB	49.8 ± 2.9 (4)	46.7 ± 0.8 (6)	93.8	49.2 ± 1.7 (6)	98.8	46.2 ± 3.7 (6)	92.8		
TBPH	49.7 ± 1.1 (6)	46.7 ± 0.6 (6)	94.0	50.0 ± 2.1 (6)	100.7	50.0 ± 1.4 (6)	100.7		
TBBPA-DBPE	48.0 ± 0.6 (6)	54.2 ± 2.1 (6) *	112.8	51.5 ± 1.6 (6)	107.3	53.0 ± 1.5 (6) *	110.4		
BTBPE	48.2 ± 1.1 (6)	48.2 ± 0.5 (6)	100.0	47.8 ± 0.7 (6)	99.3	48.7 ± 2.5 (6)	101.0		
DBDPE	46.5 ± 1.0 (6)	46.3 ± 0.8 (6)	99.6	46.8 ± 1.1 (6)	100.7	46.3 ± 2.2 (6)	99.6		
HCDBCO	48.8 ± 2.4 (5)	48.4 ± 2.0 (5)	99.2	48.2 ± 1.5 (6)	98.7	49.5 ± 1.8 (6)	101.4		

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Manual Hematocrit (%)

Treatment Groups (umol/kg)

Test Article	100		1000	
	Mean	% of Control	Mean	% of Control
PBDE-47	49.0 ± 2.0 (6)	96.1	49.3 ± 1.9 (6)	96.7
decaBDE	48.4 ± 2.6 (5)	98.1	51.0 ± 2.0 (5)	103.4
HBCD	49.3 ± 0.8 (6)	100.3	49.7 ± 1.5 (6)	100.9
TBB	45.8 ± 1.1 (6)	92.1	46.3 ± 0.4 (6)	93.1
TBPH	49.4 ± 1.7 (5)	99.5	48.8 ± 0.7 (6)	98.3
TBBPA-DBPE	50.5 ± 0.8 (6)	105.2	52.0 ± 1.4 (6)	108.3
BTBPE	50.3 ± 1.9 (6)	104.5	49.7 ± 1.3 (6)	103.1
DBDPE	46.2 ± 0.6 (6)	99.3	48.4 ± 1.2 (5)	104.1
HCDBCO	49.0 ± 2.1 (6)	100.4	47.3 ± 1.4 (6)	97.0

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Hemoglobin (g/dL)							
Treatment Groups (umol/kg)							
Test Article	0			1		10	
	Mean	Mean	% of Control	Mean	% of Control	Mean	% of Control
PBDE-47	15.3 ± 0.5 (4)	14.8 ± 0.4 (5)	96.8	11.5 ± 2.3 (5) **	75.1	14.6 ± 0.1 (5)	95.6
decaBDE	15.2 ± 0.6 (6)	16.0 ± 1.4 (2)	105.2	15.0 ± 0.6 (6)	98.8	14.5 ± 0.5 (6)	95.6
HBCD	15.2 ± 0.5 (5)	15.1 ± 0.3 (6)	99.2	15.7 ± 0.5 (6)	103.2	15.0 ± 0.3 (6)	98.7
TBB	15.9 ± 1.1 (3)	14.3 ± 0.2 (6)	90.3	15.0 ± 0.4 (6)	94.3	15.3 ± 0.8 (5)	96.3
TBPH	15.3 ± 0.3 (6)	14.3 ± 0.2 (6)	93.8	15.0 ± 0.6 (6)	98.6	15.1 ± 0.5 (6)	99.2
TBBPA-DBPE	14.7 ± 0.2 (6)	16.1 ± 0.6 (6)	109.8	15.6 ± 0.4 (6)	106.5	16.0 ± 0.4 (6) *	109.3
BTBPE	14.6 ± 0.4 (6) *	14.6 ± 0.1 (6)	100.5	14.4 ± 0.2 (6)	99.1	14.6 ± 0.6 (6)	100.1
DBDPE	14.4 ± 0.3 (6)	14.3 ± 0.3 (6)	99.0	14.4 ± 0.3 (6)	100.0	14.3 ± 0.6 (6)	98.8
HCDBCO	14.8 ± 0.8 (5)	14.7 ± 0.5 (5)	99.1	14.7 ± 0.4 (6)	99.4	15.0 ± 0.5 (6)	101.0

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Hemoglobin (g/dL)

Treatment Groups (umol/kg)

Test Article	100		1000	
	Mean	% of Control	Mean	% of Control
PBDE-47	14.6 ± 0.5 (6)	95.6	14.8 ± 0.5 (6)	96.8
decaBDE	15.1 ± 0.7 (5)	99.8	15.8 ± 0.5 (5)	104.4
HBCD	15.2 ± 0.3 (6)	100.1	15.4 ± 0.3 (6)	101.2
TBB	14.0 ± 0.2 (6)	88.0	14.2 ± 0.2 (6)	89.4
TBPH	15.0 ± 0.6 (5)	98.6	14.8 ± 0.1 (6)	96.9
TBBPA-DBPE	15.1 ± 0.3 (6)	102.7	15.6 ± 0.3 (6)	106.5
BTBPE	15.4 ± 0.5 (6)	105.5	15.3 ± 0.2 (5)	104.8
DBDPE	14.1 ± 0.2 (6)	97.5	14.6 ± 0.4 (5)	101.3
HCDBCO	15.0 ± 0.6 (6)	101.0	14.3 ± 0.4 (6)	96.8

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Erythrocytes (10⁶/uL)

Treatment Groups (umol/kg)

Test Article	0			1		10	
	Mean	Mean	% of Control	Mean	% of Control	Mean	% of Control
PBDE-47	7.75 ± 0.28 (4)	7.64 ± 0.16 (5)	98.58	5.82 ± 1.35 (5)	75.05	7.43 ± 0.10 (5)	95.87
decaBDE	7.82 ± 0.34 (6)	8.30 ± 0.98 (2)	106.12	7.82 ± 0.28 (6)	99.96	7.37 ± 0.20 (6)	94.25
HBCD	7.71 ± 0.26 (5)	7.76 ± 0.13 (6)	100.69	7.96 ± 0.27 (6)	103.24	7.73 ± 0.13 (6)	100.30
TBB	7.87 ± 0.48 (4)	7.42 ± 0.13 (6)	94.25	7.76 ± 0.27 (6)	98.59	7.85 ± 0.40 (5)	99.69
TBPH	7.85 ± 0.09 (6)	7.37 ± 0.12 (6)	93.95	7.88 ± 0.36 (6)	100.38	7.68 ± 0.26 (6)	97.90
TBBPA-DBPE	7.50 ± 0.16 (6)	8.52 ± 0.40 (6) *	113.55	8.06 ± 0.26 (6)	107.35	8.32 ± 0.30 (6)	110.84
BTBPE	7.37 ± 0.18 (6)	7.46 ± 0.09 (6)	101.34	7.33 ± 0.06 (6)	99.50	7.50 ± 0.32 (6)	101.81
DBDPE	7.41 ± 0.17 (6)	7.44 ± 0.15 (6)	100.43	7.40 ± 0.17 (6)	99.80	7.37 ± 0.34 (6)	99.42
HCDBCO	7.75 ± 0.42 (5)	7.40 ± 0.23 (5)	95.51	7.52 ± 0.16 (6)	97.08	7.67 ± 0.28 (6)	98.97

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Erythrocytes (10⁶/uL)

Treatment Groups (umol/kg)

Test Article	100		1000	
	Mean	% of Control	Mean	% of Control
PBDE-47	7.61 ± 0.26 (6)	98.15	7.63 ± 0.23 (6)	98.47
decaBDE	7.74 ± 0.38 (5)	98.90	8.25 ± 0.30 (5)	105.48
HBCD	7.87 ± 0.18 (6)	102.10	7.93 ± 0.18 (6)	102.83
TBB	7.16 ± 0.20 (6)	90.93	7.29 ± 0.11 (6)	92.64
TBPH	7.78 ± 0.31 (5)	99.08	7.48 ± 0.10 (6)	95.26
TBBPA-DBPE	7.84 ± 0.19 (6)	104.51	8.08 ± 0.21 (6)	107.66
BTBPE	7.98 ± 0.30 (6)	108.31	7.75 ± 0.14 (5)	105.23
DBDPE	7.23 ± 0.12 (6)	97.62	7.44 ± 0.25 (5)	100.40
HCDBCO	7.65 ± 0.30 (6)	98.69	7.30 ± 0.20 (6)	94.15

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Reticulocytes (10³/uL)

Treatment Groups (umol/kg)

Test Article	0		0.1		1		10	
	Mean		Mean	% of Control	Mean	% of Control	Mean	% of Control
PBDE-47	401.2 ± 20.8 (4) *		385.1 ± 29.4 (5)	96.0	305.8 ± 70.5 (5)	76.2	397.8 ± 8.2 (5)	99.2
decaBDE	433.7 ± 32.6 (6)		449.3 ± 38.8 (2)	103.6	432.4 ± 20.7 (6)	99.7	437.3 ± 32.6 (6)	100.8
HBCD	441.4 ± 20.2 (5)		426.5 ± 18.8 (6)	96.6	406.8 ± 20.3 (6)	92.2	409.5 ± 13.9 (6)	92.8
TBB	425.1 ± 30.5 (4) **		400.8 ± 13.7 (6)	94.3	405.0 ± 37.9 (6)	95.3	407.0 ± 36.9 (5)	95.7
TBPH	430.3 ± 19.9 (6)		388.7 ± 16.5 (6)	90.3	417.0 ± 27.8 (6)	96.9	414.4 ± 16.7 (6)	96.3
TBBPA-DBPE	402.0 ± 17.2 (6)		430.4 ± 37.0 (6)	107.1	379.6 ± 11.0 (6)	94.4	421.4 ± 27.2 (6)	104.8
BTBPE	420.0 ± 16.6 (6)		404.5 ± 26.6 (6)	96.3	402.3 ± 13.7 (6)	95.8	397.9 ± 25.1 (6)	94.8
DBDPE	410.4 ± 11.7 (6)		406.1 ± 8.6 (6)	99.0	401.0 ± 14.0 (6)	97.7	368.6 ± 17.4 (6)	89.8
HCDBCO	394.9 ± 6.2 (5)		419.3 ± 25.6 (5)	106.2	419.0 ± 18.9 (6)	106.1	426.3 ± 23.6 (6)	107.9

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Reticulocytes (10³/uL)

Treatment Groups (umol/kg)

Test Article	100		1000	
	Mean	% of Control	Mean	% of Control
PBDE-47	409.2 ± 25.1 (6)	102.0	254.4 ± 15.7 (6) *	63.4
decaBDE	393.8 ± 26.1 (5)	90.8	422.1 ± 19.8 (5)	97.3
HBCD	401.5 ± 21.9 (6)	91.0	413.4 ± 22.2 (6)	93.6
TBB	379.2 ± 5.8 (6)	89.2	331.9 ± 18.5 (6) *	78.1
TBPH	424.4 ± 25.7 (5)	98.6	408.5 ± 14.0 (6)	94.9
TBBPA-DBPE	401.1 ± 35.2 (6)	99.8	401.6 ± 20.0 (6)	99.9
BTBPE	416.2 ± 28.4 (6)	99.1	420.1 ± 13.0 (5)	100.0
DBDPE	391.0 ± 8.5 (6)	95.3	459.5 ± 35.2 (5)	112.0
HCDBCO	426.7 ± 18.5 (6)	108.0	382.3 ± 16.2 (6)	96.8

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Nucleated Red Blood Cells (/100 WBC)

Treatment Groups (umol/kg)

Test Article	0		0.1		1		10	
	Mean	Mean	% of Control	Mean	% of Control	Mean	% of Control	
PBDE-47	0.25 ± 0.25 (4)	0.00 ± 0.00 (5)	0.00	0.00 ± 0.00 (5)	0.00	0.00 ± 0.00 (5)	0.00	
decaBDE	0.00 ± 0.00 (6)	0.00 ± 0.00 (2)		0.00 ± 0.00 (6)		0.00 ± 0.00 (6)		
HBCD	0.00 ± 0.00 (5)	0.17 ± 0.17 (6)		0.00 ± 0.00 (6)		0.00 ± 0.00 (6)		
TBB	0.00 ± 0.00 (4)	0.00 ± 0.00 (6)		0.00 ± 0.00 (6)		0.20 ± 0.20 (5)		
TBPH	0.00 ± 0.00 (6)	0.00 ± 0.00 (6)		0.00 ± 0.00 (6)		0.00 ± 0.00 (6)		
TBBPA-DBPE	0.00 ± 0.00 (6)	0.00 ± 0.00 (6)		0.00 ± 0.00 (6)		0.17 ± 0.17 (6)		
BTBPE	0.67 ± 0.33 (6)	0.17 ± 0.17 (6)	25.00	0.17 ± 0.17 (6)	25.00	0.67 ± 0.21 (6)	100.00	
DBDPE	0.17 ± 0.17 (6)	0.00 ± 0.00 (6)	0.00	0.00 ± 0.00 (6)	0.00	0.00 ± 0.00 (6)	0.00	
HCDBCO	0.20 ± 0.20 (5)	0.00 ± 0.00 (5)	0.00	0.17 ± 0.17 (6)	83.33	0.17 ± 0.17 (6)	83.33	

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Nucleated Red Blood Cells (/100 WBC)

Treatment Groups (umol/kg)

Test Article	100		1000	
	Mean	% of Control	Mean	% of Control
PBDE-47	0.00 ± 0.00 (6)	0.00	0.00 ± 0.00 (6)	0.00
decaBDE	0.00 ± 0.00 (5)		0.00 ± 0.00 (5)	
HBCD	0.00 ± 0.00 (6)		0.00 ± 0.00 (6)	
TBB	0.17 ± 0.17 (6)		0.00 ± 0.00 (6)	
TBPH	0.00 ± 0.00 (5)		0.00 ± 0.00 (6)	
TBBPA-DBPE	0.17 ± 0.17 (6)		0.00 ± 0.00 (6)	
BTBPE	0.00 ± 0.00 (6)	0.00	0.83 ± 0.40 (6)	125.00
DBDPE	0.17 ± 0.17 (6)	100.00	0.00 ± 0.00 (5)	0.00
HCDBCO	0.00 ± 0.00 (6)	0.00	0.50 ± 0.22 (6)	250.00

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Mean Cell Volume (fL)							
Treatment Groups (umol/kg)							
Test Article	0			1		10	
	Mean	Mean	% of Control	Mean	% of Control	Mean	% of Control
PBDE-47	66.8 ± 0.2 (4)	65.2 ± 0.7 (5)	97.6	65.5 ± 0.8 (5)	98.0	66.4 ± 0.5 (5)	99.3
decaBDE	65.0 ± 0.6 (6)	63.1 ± 0.6 (2)	97.0	64.4 ± 0.7 (6)	99.0	65.3 ± 0.7 (6)	100.4
HBCD	65.8 ± 0.5 (5)	65.4 ± 0.9 (6)	99.4	65.6 ± 0.9 (6)	99.7	64.8 ± 0.5 (6)	98.5
TBB	65.6 ± 1.0 (4)	64.8 ± 0.6 (6)	98.8	64.0 ± 0.6 (6)	97.6	64.9 ± 0.8 (5)	98.9
TBPH	65.0 ± 0.7 (6) *	64.5 ± 0.6 (6)	99.2	64.7 ± 0.3 (6)	99.4	66.5 ± 0.5 (6)	102.2
TBBPA-DBPE	66.3 ± 0.6 (6)	66.0 ± 0.7 (6)	99.5	66.2 ± 0.6 (6)	99.8	67.0 ± 0.3 (6)	101.0
BTBPE	67.0 ± 0.7 (6)	66.5 ± 0.6 (6)	99.2	67.0 ± 0.6 (6)	99.9	66.6 ± 0.8 (6)	99.3
DBDPE	66.2 ± 0.7 (6)	65.1 ± 0.2 (6)	98.4	66.3 ± 0.7 (6)	100.2	65.2 ± 0.4 (6)	98.5
HCDBCO	65.3 ± 0.5 (5)	66.7 ± 0.6 (5)	102.1	66.3 ± 0.7 (6)	101.5	66.2 ± 0.5 (6)	101.3

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Mean Cell Volume (fL)

Treatment Groups (umol/kg)

Test Article	100		1000	
	Mean	% of Control	Mean	% of Control
PBDE-47	65.7 ± 0.6 (6)	98.4	64.9 ± 0.9 (6)	97.2
decaBDE	64.7 ± 0.4 (5)	99.5	64.0 ± 0.5 (5)	98.4
HBCD	64.4 ± 0.4 (6)	97.8	64.6 ± 0.7 (6)	98.2
TBB	65.0 ± 0.4 (6)	99.1	65.4 ± 0.3 (6)	99.7
TBPH	64.9 ± 0.9 (5)	99.7	66.8 ± 0.4 (6)	102.7
TBBPA-DBPE	66.5 ± 1.1 (6)	100.2	67.3 ± 0.3 (6)	101.4
BTBPE	66.3 ± 0.7 (6)	98.9	66.7 ± 0.3 (5)	99.5
DBDPE	66.5 ± 0.5 (6)	100.4	67.8 ± 0.8 (5)	102.4
HCDBCO	65.9 ± 0.8 (6)	100.8	66.3 ± 0.4 (6)	101.4

Experiment Number: Multiple

Test Type: TOX

Route: Oral Gavage

Species/Strain: Rat/Harlan Sprague Dawley

PA43X: Hematology Summary

Test Compound: Flame Retardants

CAS Number: N/A

Date Report Requested: 04/17/2019

Time Report Requested: 08:52:40

Lab: NTP

Mean Cell Hemoglobin (pg)

Treatment Groups (umol/kg)

Test Article	0			1		10	
	Mean	Mean	% of Control	Mean	% of Control	Mean	% of Control
PBDE-47	19.7 ± 0.2 (4)	19.3 ± 0.1 (5)	98.1	24.8 ± 5.6 (5)	126.0	19.6 ± 0.2 (5)	99.8
decaBDE	19.4 ± 0.3 (6)	19.3 ± 0.6 (2)	99.1	19.1 ± 0.2 (6)	98.5	19.7 ± 0.2 (6)	101.1
HBCD	19.7 ± 0.1 (5)	19.4 ± 0.2 (6)	98.5	19.7 ± 0.3 (6)	100.1	19.4 ± 0.1 (6)	98.4
TBB	19.6 ± 0.1 (3)	19.4 ± 0.2 (6)	98.7	19.3 ± 0.2 (6)	98.5	19.5 ± 0.3 (5)	99.3
TBPH	19.4 ± 0.2 (6)	19.4 ± 0.1 (6)	99.8	19.1 ± 0.2 (6)	98.4	19.7 ± 0.2 (6)	101.5
TBBPA-DBPE	19.5 ± 0.2 (6)	19.0 ± 0.3 (6)	97.1	19.4 ± 0.3 (6)	99.3	19.3 ± 0.2 (6)	98.8
BTBPE	19.8 ± 0.1 (6)	19.6 ± 0.3 (6)	99.2	19.7 ± 0.2 (6)	99.7	19.5 ± 0.3 (6)	98.5
DBDPE	19.5 ± 0.2 (6)	19.2 ± 0.1 (6)	98.5	19.5 ± 0.1 (6)	100.1	19.3 ± 0.1 (6)	99.4
HCDBCO	19.1 ± 0.2 (5)	19.8 ± 0.1 (5)	103.8	19.5 ± 0.2 (6)	102.3	19.5 ± 0.2 (6)	102.2

Experiment Number: Multiple

Test Type: TOX

Route: Oral Gavage

Species/Strain: Rat/Harlan Sprague Dawley

PA43X: Hematology Summary

Test Compound: Flame Retardants

CAS Number: N/A

Date Report Requested: 04/17/2019

Time Report Requested: 08:52:40

Lab: NTP

Mean Cell Hemoglobin (pg)

Treatment Groups (umol/kg)

Test Article	100		1000	
	Mean	% of Control	Mean	% of Control
PBDE-47	19.2 ± 0.1 (6)	97.6	19.4 ± 0.2 (6)	98.3
decaBDE	19.5 ± 0.1 (5)	100.4	19.2 ± 0.1 (5)	98.9
HBCD	19.4 ± 0.2 (6)	98.2	19.4 ± 0.2 (6)	98.3
TBB	19.5 ± 0.2 (6)	99.6	19.5 ± 0.1 (6)	99.2
TBPH	19.4 ± 0.3 (5)	99.8	19.8 ± 0.2 (6)	102.1
TBBPA-DBPE	19.2 ± 0.3 (6)	98.5	19.3 ± 0.1 (6)	98.9
BTBPE	19.3 ± 0.2 (6)	97.5	19.7 ± 0.2 (5)	99.6
DBDPE	19.5 ± 0.1 (6)	100.0	19.6 ± 0.3 (5)	100.9
HCDBCO	19.6 ± 0.2 (6)	102.4	19.6 ± 0.1 (6)	102.7

Experiment Number: Multiple

Test Type: TOX

Route: Oral Gavage

Species/Strain: Rat/Harlan Sprague Dawley

PA43X: Hematology Summary

Test Compound: Flame Retardants

CAS Number: N/A

Date Report Requested: 04/17/2019

Time Report Requested: 08:52:40

Lab: NTP

Mean Cell Hemoglobin Concentration (g/dL)

Treatment Groups (umol/kg)

Test Article	0			1		10	
	Mean	Mean	% of Control	Mean	% of Control	Mean	% of Control
PBDE-47	29.5 ± 0.3 (4)	29.6 ± 0.2 (5)	100.5	37.8 ± 8.4 (5)	128.4	29.6 ± 0.2 (5)	100.3
decaBDE	29.9 ± 0.4 (6)	30.6 ± 0.7 (2)	102.2	29.7 ± 0.2 (6)	99.4	30.1 ± 0.1 (6)	100.7
HBCD	29.9 ± 0.2 (5)	29.7 ± 0.2 (6)	99.3	30.1 ± 0.3 (6)	100.5	29.9 ± 0.2 (6)	100.0
TBB	29.4 ± 0.3 (3)	29.9 ± 0.2 (6)	101.6	30.2 ± 0.3 (6)	102.6	30.0 ± 0.2 (5)	102.0
TBPH	29.9 ± 0.2 (6)	30.1 ± 0.1 (6)	100.6	29.5 ± 0.2 (6)	98.8	29.7 ± 0.1 (6)	99.2
TBBPA-DBPE	29.4 ± 0.2 (6)	28.7 ± 0.1 (6) *	97.5	29.3 ± 0.2 (6)	99.5	28.8 ± 0.2 (6)	97.8
BTBPE	29.5 ± 0.2 (6)	29.5 ± 0.2 (6)	100.3	29.4 ± 0.2 (6)	99.8	29.3 ± 0.2 (6)	99.3
DBDPE	29.4 ± 0.1 (6) *	29.5 ± 0.1 (6)	100.2	29.4 ± 0.3 (6)	100.1	29.6 ± 0.1 (6)	100.8
HCDBCO	29.3 ± 0.2 (5)	29.7 ± 0.1 (5)	101.6	29.5 ± 0.2 (6)	100.7	29.5 ± 0.2 (6)	100.9

Experiment Number: Multiple

Test Type: TOX

Route: Oral Gavage

Species/Strain: Rat/Harlan Sprague Dawley

PA43X: Hematology Summary

Test Compound: Flame Retardants

CAS Number: N/A

Date Report Requested: 04/17/2019

Time Report Requested: 08:52:40

Lab: NTP

Mean Cell Hemoglobin Concentration (g/dL)

Treatment Groups (umol/kg)

Test Article	100		1000	
	Mean	% of Control	Mean	% of Control
PBDE-47	29.2 ± 0.2 (6)	99.1	29.8 ± 0.2 (6)	101.2
decaBDE	30.2 ± 0.2 (5)	101.0	30.0 ± 0.1 (5)	100.4
HBCD	30.0 ± 0.2 (6)	100.3	30.1 ± 0.2 (6)	100.4
TBB	30.0 ± 0.2 (6)	102.2	29.7 ± 0.1 (6)	101.1
TBPH	29.9 ± 0.3 (5)	100.1	29.7 ± 0.1 (6)	99.3
TBBPA-DBPE	28.9 ± 0.1 (6)	98.4	28.7 ± 0.1 (6)	97.6
BTBPE	29.1 ± 0.2 (6)	98.7	29.5 ± 0.2 (5)	100.2
DBDPE	29.3 ± 0.1 (6)	99.5	28.9 ± 0.1 (5)	98.5
HCDBCO	29.7 ± 0.2 (6)	101.3	29.6 ± 0.3 (6)	101.2

Experiment Number: Multiple

Test Type: TOX

Route: Oral Gavage

Species/Strain: Rat/Harlan Sprague Dawley

PA43X: Hematology Summary

Test Compound: Flame Retardants

CAS Number: N/A

Date Report Requested: 04/17/2019

Time Report Requested: 08:52:40

Lab: NTP

Platelets (10³/uL)

Treatment Groups (umol/kg)

Test Article	0		0.1		1		10	
	Mean	Mean	% of Control	Mean	% of Control	Mean	% of Control	
PBDE-47	773 ± 112 (4)	915 ± 37 (5)	118	811 ± 198 (5)	105	964 ± 17 (5)	125	
decaBDE	841 ± 117 (6)	735 ± 232 (2)	87	844 ± 118 (6)	100	812 ± 95 (6)	96	
HBCD	879 ± 59 (5)	988 ± 39 (6)	112	927 ± 57 (6)	105	1048 ± 81 (6)	119	
TBB	803 ± 174 (4)	887 ± 57 (6)	110	941 ± 46 (6)	117	811 ± 168 (5)	101	
TBPH	893 ± 62 (6)	1025 ± 73 (6)	115	918 ± 72 (6)	103	920 ± 88 (6)	103	
TBBPA-DBPE	975 ± 45 (6)	901 ± 58 (6)	92	836 ± 51 (6)	86	924 ± 43 (6)	95	
BTBPE	912 ± 56 (6)	881 ± 75 (6)	97	1031 ± 41 (6)	113	951 ± 55 (6)	104	
DBDPE	955 ± 119 (6)	966 ± 22 (6)	101	910 ± 74 (6)	95	845 ± 97 (6)	89	
HCDBCO	928 ± 57 (5)	990 ± 63 (5)	107	1013 ± 38 (6)	109	973 ± 48 (6)	105	

Experiment Number: Multiple

Test Type: TOX

Route: Oral Gavage

Species/Strain: Rat/Harlan Sprague Dawley

PA43X: Hematology Summary

Test Compound: Flame Retardants

CAS Number: N/A

Date Report Requested: 04/17/2019

Time Report Requested: 08:52:40

Lab: NTP

Platelets (10³/uL)

Treatment Groups (umol/kg)

Test Article	100		1000	
	Mean	% of Control	Mean	% of Control
PBDE-47	894 ± 112 (6)	116	1057 ± 79 (6)	137
decaBDE	705 ± 163 (5)	84	965 ± 67 (5)	115
HBCD	852 ± 77 (6)	97	920 ± 44 (6)	105
TBB	880 ± 31 (6)	110	868 ± 92 (6)	108
TBPH	895 ± 77 (5)	100	1012 ± 60 (6)	113
TBBPA-DBPE	911 ± 65 (6)	93	1052 ± 20 (6)	108
BTBPE	1027 ± 49 (6)	113	853 ± 79 (5)	93
DBDPE	1022 ± 70 (6)	107	912 ± 115 (5)	96
HCDBCO	866 ± 99 (6)	93	979 ± 74 (6)	105

Experiment Number: Multiple

Test Type: TOX

Route: Oral Gavage

Species/Strain: Rat/Harlan Sprague Dawley

PA43X: Hematology Summary

Test Compound: Flame Retardants

CAS Number: N/A

Date Report Requested: 04/17/2019

Time Report Requested: 08:52:40

Lab: NTP

White Blood Cells (10³/uL)

Treatment Groups (umol/kg)

Test Article	0		0.1		1		10	
	Mean		Mean	% of Control	Mean	% of Control	Mean	% of Control
PBDE-47	13.24 ± 1.44 (4) **		14.69 ± 0.54 (5)	110.98	14.87 ± 0.65 (5)	112.33	13.24 ± 0.82 (5)	100.00
decaBDE	9.88 ± 1.03 (6)		8.34 ± 0.91 (2)	84.40	9.61 ± 1.09 (6)	97.28	9.54 ± 0.53 (6)	96.53
HBCD	14.86 ± 1.15 (5)		13.48 ± 0.57 (6)	90.68	12.75 ± 0.58 (6)	85.78	13.79 ± 0.86 (6)	92.81
TBB	11.73 ± 1.08 (4)		16.09 ± 1.02 (6) *	137.16	15.06 ± 0.69 (6)	128.37	16.10 ± 1.25 (5)	137.25
TBPH	13.33 ± 1.19 (6)		13.48 ± 0.82 (6)	101.10	14.02 ± 1.47 (6)	105.15	13.22 ± 0.62 (6)	99.16
TBBPA-DBPE	13.81 ± 1.52 (6)		11.67 ± 1.82 (6)	84.55	12.79 ± 0.77 (6)	92.67	12.56 ± 1.24 (6)	90.95
BTBPE	15.03 ± 0.85 (6)		14.06 ± 1.06 (6)	93.54	13.93 ± 1.14 (6)	92.71	14.04 ± 1.12 (6)	93.43
DBDPE	13.36 ± 1.51 (6)		12.49 ± 1.14 (6)	93.51	15.98 ± 1.83 (6)	119.64	13.38 ± 0.88 (6)	100.12
HCDBCO	13.37 ± 0.88 (5)		13.91 ± 1.43 (5)	103.99	11.47 ± 0.22 (6)	85.76	11.90 ± 0.94 (6)	88.97

Experiment Number: Multiple

Test Type: TOX

Route: Oral Gavage

Species/Strain: Rat/Harlan Sprague Dawley

PA43X: Hematology Summary

Test Compound: Flame Retardants

CAS Number: N/A

Date Report Requested: 04/17/2019

Time Report Requested: 08:52:40

Lab: NTP

White Blood Cells (10³/uL)

Treatment Groups (umol/kg)

Test Article	100		1000	
	Mean	% of Control	Mean	% of Control
PBDE-47	13.03 ± 1.01 (6)	98.44	9.86 ± 0.89 (6)	74.46
decaBDE	9.25 ± 0.88 (5)	93.61	10.41 ± 1.31 (5)	105.33
HBCD	12.78 ± 1.40 (6)	85.99	15.77 ± 0.76 (6)	106.13
TBB	14.73 ± 0.62 (6)	125.53	13.79 ± 1.06 (6)	117.56
TBPH	12.40 ± 0.80 (5)	93.03	15.35 ± 1.35 (6)	115.10
TBBPA-DBPE	13.94 ± 1.38 (6)	101.00	12.28 ± 1.03 (6)	88.93
BTBPE	13.73 ± 0.91 (6)	91.36	14.28 ± 0.72 (5)	95.01
DBDPE	11.97 ± 1.09 (6)	89.62	13.10 ± 1.78 (5)	98.05
HCDBCO	14.50 ± 0.52 (6)	108.41	12.03 ± 0.57 (6)	89.95

Experiment Number: Multiple

Test Type: TOX

Route: Oral Gavage

Species/Strain: Rat/Harlan Sprague Dawley

PA43X: Hematology Summary

Test Compound: Flame Retardants

CAS Number: N/A

Date Report Requested: 04/17/2019

Time Report Requested: 08:52:40

Lab: NTP

Neutrophils (10³/uL)

Treatment Groups (umol/kg)

Test Article	0		0.1		1		10	
	Mean	% of Control	Mean	% of Control	Mean	% of Control	Mean	% of Control
PBDE-47	0.95 ± 0.12 (4)	89.89	0.85 ± 0.05 (5)	89.89	1.03 ± 0.04 (5)	108.84	0.94 ± 0.10 (5)	98.53
decaBDE	0.81 ± 0.05 (6)	84.57	0.69 ± 0.22 (2)	84.57	0.84 ± 0.09 (6)	103.91	0.83 ± 0.06 (6)	102.47
HBCD	1.11 ± 0.11 (5)	85.88	0.96 ± 0.06 (6)	85.88	0.94 ± 0.09 (6)	84.68	0.94 ± 0.06 (6)	84.08
TBB	1.01 ± 0.16 (4)	115.88	1.17 ± 0.11 (6)	115.88	1.10 ± 0.12 (6)	108.97	1.18 ± 0.09 (5)	116.15
TBPH	0.91 ± 0.09 (6)	104.05	0.94 ± 0.11 (6)	104.05	0.93 ± 0.07 (6)	103.13	0.96 ± 0.07 (6)	105.52
TBBPA-DBPE	1.08 ± 0.09 (6)	81.09	0.87 ± 0.15 (6)	81.09	1.08 ± 0.13 (6)	100.31	1.18 ± 0.26 (6)	109.77
BTBPE	1.30 ± 0.12 (6)	101.41	1.32 ± 0.17 (6)	101.41	1.24 ± 0.09 (6)	95.38	1.25 ± 0.11 (6)	96.15
DBDPE	1.14 ± 0.10 (6)	101.75	1.16 ± 0.22 (6)	101.75	1.46 ± 0.20 (6)	128.36	1.03 ± 0.15 (6)	89.91
HCDBCO	1.14 ± 0.21 (5)	98.06	1.11 ± 0.09 (5)	98.06	1.02 ± 0.11 (6)	89.64	0.95 ± 0.17 (6)	83.33

Experiment Number: Multiple

Test Type: TOX

Route: Oral Gavage

Species/Strain: Rat/Harlan Sprague Dawley

PA43X: Hematology Summary

Test Compound: Flame Retardants

CAS Number: N/A

Date Report Requested: 04/17/2019

Time Report Requested: 08:52:40

Lab: NTP

Neutrophils (10³/uL)

Treatment Groups (umol/kg)

Test Article	100		1000	
	Mean	% of Control	Mean	% of Control
PBDE-47	0.91 ± 0.07 (6)	95.26	0.64 ± 0.09 (6)	67.54
decaBDE	0.74 ± 0.08 (5)	91.36	0.91 ± 0.10 (5)	112.10
HBCD	0.94 ± 0.10 (6)	84.83	1.21 ± 0.10 (6)	108.51
TBB	1.14 ± 0.05 (6)	112.43	1.29 ± 0.11 (6)	127.74
TBPH	0.97 ± 0.09 (5)	106.74	0.98 ± 0.10 (6)	108.10
TBBPA-DBPE	1.18 ± 0.12 (6)	109.92	1.05 ± 0.06 (6)	97.21
BTBPE	1.29 ± 0.14 (6)	99.10	1.45 ± 0.15 (5)	111.53
DBDPE	1.04 ± 0.07 (6)	90.94	1.30 ± 0.42 (5)	114.04
HCDBCO	1.11 ± 0.11 (6)	97.56	0.98 ± 0.06 (6)	85.97

Experiment Number: Multiple

Test Type: TOX

Route: Oral Gavage

Species/Strain: Rat/Harlan Sprague Dawley

PA43X: Hematology Summary

Test Compound: Flame Retardants

CAS Number: N/A

Date Report Requested: 04/17/2019

Time Report Requested: 08:52:40

Lab: NTP

Monocytes (10³/uL)

Treatment Groups (umol/kg)

Test Article	0			1		10	
	Mean	Mean	% of Control	Mean	% of Control	Mean	% of Control
PBDE-47	0.66 ± 0.18 (4)	0.67 ± 0.11 (5)	102.51	0.74 ± 0.17 (5)	113.16	0.65 ± 0.07 (5)	98.56
decaBDE	0.35 ± 0.04 (6)	0.34 ± 0.01 (2)	96.17	0.35 ± 0.04 (6)	99.52	0.42 ± 0.06 (6)	120.10
HBCD	1.05 ± 0.15 (5)	0.60 ± 0.07 (6)	57.68	0.64 ± 0.13 (6)	60.87	0.66 ± 0.06 (6)	62.78
TBB	0.40 ± 0.03 (4)	0.85 ± 0.09 (6) *	209.94	0.83 ± 0.09 (6) *	207.04	0.80 ± 0.19 (5)	198.26
TBPH	0.66 ± 0.10 (6)	0.72 ± 0.11 (6)	110.18	0.58 ± 0.10 (6)	89.06	0.62 ± 0.11 (6)	95.17
TBBPA-DBPE	0.57 ± 0.09 (6)	0.49 ± 0.08 (6)	86.47	0.53 ± 0.05 (6)	92.65	0.56 ± 0.08 (6)	99.41
BTBPE	0.67 ± 0.07 (6)	0.66 ± 0.06 (6)	98.02	0.68 ± 0.08 (6)	100.99	0.57 ± 0.10 (6)	85.15
DBDPE	0.58 ± 0.06 (6)	0.67 ± 0.13 (6)	114.61	0.87 ± 0.14 (6)	148.71	0.55 ± 0.04 (6)	95.13
HCDBCO	0.46 ± 0.05 (5)	0.54 ± 0.02 (5)	117.47	0.51 ± 0.06 (6)	112.08	0.45 ± 0.04 (6)	98.25

Experiment Number: Multiple

Test Type: TOX

Route: Oral Gavage

Species/Strain: Rat/Harlan Sprague Dawley

PA43X: Hematology Summary

Test Compound: Flame Retardants

CAS Number: N/A

Date Report Requested: 04/17/2019

Time Report Requested: 08:52:40

Lab: NTP

Monocytes (10³/uL)

Treatment Groups (umol/kg)

Test Article	100		1000	
	Mean	% of Control	Mean	% of Control
PBDE-47	0.59 ± 0.06 (6)	89.48	0.49 ± 0.09 (6)	74.78
decaBDE	0.47 ± 0.08 (5)	134.93	0.32 ± 0.07 (5)	93.01
HBCD	0.53 ± 0.04 (6)	50.35	0.76 ± 0.15 (6)	72.82
TBB	0.78 ± 0.09 (6)	193.37	0.88 ± 0.16 (6)	217.39
TBPH	0.52 ± 0.12 (5)	79.39	0.63 ± 0.07 (6)	96.69
TBBPA-DBPE	0.61 ± 0.10 (6)	107.35	0.58 ± 0.11 (6)	101.76
BTBPE	0.64 ± 0.05 (6)	95.05	0.78 ± 0.15 (5)	116.44
DBDPE	0.57 ± 0.11 (6)	97.13	0.67 ± 0.13 (5)	115.53
HCDBCO	0.64 ± 0.05 (6)	139.74	0.57 ± 0.10 (6)	125.18

Experiment Number: Multiple

Test Type: TOX

Route: Oral Gavage

Species/Strain: Rat/Harlan Sprague Dawley

PA43X: Hematology Summary

Test Compound: Flame Retardants

CAS Number: N/A

Date Report Requested: 04/17/2019

Time Report Requested: 08:52:40

Lab: NTP

Basophils (10³/uL)

Treatment Groups (umol/kg)

Test Article	0		0.1		1		10	
	Mean		Mean	% of Control	Mean	% of Control	Mean	% of Control
PBDE-47	0.10 ± 0.02 (4) **		0.10 ± 0.01 (5)	98.46	0.10 ± 0.01 (5)	104.62	0.09 ± 0.01 (5)	90.26
decaBDE	0.06 ± 0.01 (6)		0.06 ± 0.02 (2)	105.88	0.06 ± 0.01 (6)	97.06	0.05 ± 0.01 (6)	91.18
HBCD	0.11 ± 0.02 (5)		0.09 ± 0.01 (6)	78.79	0.09 ± 0.01 (6)	80.30	0.09 ± 0.01 (6)	81.82
TBB	0.08 ± 0.01 (4)		0.11 ± 0.01 (6)	137.37	0.10 ± 0.01 (6)	123.23	0.14 ± 0.04 (5)	164.85
TBPH	0.09 ± 0.02 (6)		0.09 ± 0.01 (6)	92.86	0.11 ± 0.01 (6)	119.64	0.08 ± 0.01 (6)	85.71
TBBPA-DBPE	0.11 ± 0.02 (6)		0.09 ± 0.02 (6)	84.38	0.09 ± 0.01 (6)	85.94	0.08 ± 0.01 (6)	76.56
BTBPE	0.10 ± 0.01 (6)		0.11 ± 0.01 (6)	110.53	0.09 ± 0.01 (6)	96.49	0.09 ± 0.01 (6)	94.74
DBDPE	0.09 ± 0.01 (6)		0.08 ± 0.01 (6)	90.38	0.12 ± 0.02 (6)	136.54	0.08 ± 0.01 (6)	92.31
HCDBCO	0.08 ± 0.01 (5)		0.10 ± 0.02 (5)	117.07	0.07 ± 0.01 (6)	81.30	0.07 ± 0.01 (6)	87.40

Experiment Number: Multiple

Test Type: TOX

Route: Oral Gavage

Species/Strain: Rat/Harlan Sprague Dawley

PA43X: Hematology Summary

Test Compound: Flame Retardants

CAS Number: N/A

Date Report Requested: 04/17/2019

Time Report Requested: 08:52:40

Lab: NTP

Basophils (10³/uL)

Treatment Groups (umol/kg)

Test Article	100		1000	
	Mean	% of Control	Mean	% of Control
PBDE-47	0.08 ± 0.01 (6)	78.63	0.06 ± 0.01 (6) *	58.12
decaBDE	0.05 ± 0.01 (5)	88.24	0.07 ± 0.02 (5)	127.06
HBCD	0.09 ± 0.02 (6)	78.79	0.11 ± 0.01 (6)	101.52
TBB	0.09 ± 0.01 (6)	111.11	0.08 ± 0.01 (6)	96.97
TBPH	0.09 ± 0.01 (5)	92.14	0.10 ± 0.02 (6)	105.36
TBBPA-DBPE	0.10 ± 0.02 (6)	96.88	0.09 ± 0.01 (6)	87.50
BTBPE	0.09 ± 0.01 (6)	96.49	0.09 ± 0.01 (5)	98.95
DBDPE	0.05 ± 0.01 (6)	59.62	0.08 ± 0.01 (5)	96.92
HCDBCO	0.09 ± 0.01 (6)	109.76	0.08 ± 0.01 (6)	91.46

Experiment Number: Multiple

Test Type: TOX

Route: Oral Gavage

Species/Strain: Rat/Harlan Sprague Dawley

PA43X: Hematology Summary

Test Compound: Flame Retardants

CAS Number: N/A

Date Report Requested: 04/17/2019

Time Report Requested: 08:52:40

Lab: NTP

Eosinophils (10³/uL)

Treatment Groups (umol/kg)

Test Article	0		0.1		1		10	
	Mean		Mean	% of Control	Mean	% of Control	Mean	% of Control
PBDE-47	0.08 ± 0.04 (4)		0.06 ± 0.01 (5)	70.59	0.08 ± 0.03 (5)	96.47	0.04 ± 0.00 (5)	44.71
decaBDE	0.16 ± 0.06 (6)		0.12 ± 0.09 (2)	72.63	0.04 ± 0.01 (6)	26.32	0.10 ± 0.04 (6)	62.11
HBCD	0.06 ± 0.01 (5) *		0.05 ± 0.00 (6)	88.89	0.05 ± 0.01 (6)	77.78	0.08 ± 0.02 (6)	133.33
TBB	0.09 ± 0.03 (4)		0.07 ± 0.03 (6)	83.81	0.05 ± 0.00 (6)	55.24	0.08 ± 0.02 (5)	96.00
TBPH	0.09 ± 0.04 (6)		0.06 ± 0.01 (6)	61.82	0.05 ± 0.01 (6)	50.91	0.11 ± 0.06 (6)	118.18
TBBPA-DBPE	0.05 ± 0.01 (6)		0.07 ± 0.03 (6)	141.38	0.12 ± 0.06 (6)	255.17	0.05 ± 0.01 (6)	100.00
BTBPE	0.07 ± 0.01 (6)		0.06 ± 0.00 (6)	86.36	0.05 ± 0.01 (6)	65.91	0.07 ± 0.02 (6)	88.64
DBDPE	0.09 ± 0.04 (6)		0.06 ± 0.01 (6)	60.00	0.07 ± 0.01 (6)	74.55	0.06 ± 0.01 (6)	60.00
HCDBCO	0.05 ± 0.00 (5)		0.05 ± 0.01 (5)	92.31	0.04 ± 0.00 (6)	73.72	0.08 ± 0.03 (6)	150.64

Experiment Number: Multiple

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Eosinophils (10³/uL)

Treatment Groups (umol/kg)

Test Article	100		1000	
	Mean	% of Control	Mean	% of Control
PBDE-47	0.11 ± 0.06 (6)	133.33	0.07 ± 0.04 (6)	82.35
decaBDE	0.10 ± 0.03 (5)	64.42	0.18 ± 0.07 (5)	112.42
HBCD	0.09 ± 0.02 (6)	144.44	0.13 ± 0.06 (6)	219.44
TBB	0.07 ± 0.01 (6)	78.10	0.14 ± 0.08 (6)	154.29
TBPH	0.08 ± 0.02 (5)	87.27	0.06 ± 0.01 (6)	60.00
TBBPA-DBPE	0.05 ± 0.01 (6)	100.00	0.04 ± 0.01 (6)	82.76
BTBPE	0.06 ± 0.01 (6)	81.82	0.07 ± 0.01 (5)	90.00
DBDPE	0.04 ± 0.00 (6)	45.45	0.06 ± 0.01 (5)	61.09
HCDBCO	0.11 ± 0.04 (6)	201.92	0.10 ± 0.04 (6)	192.31

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Large Unstained Cells (10³/uL)

Treatment Groups (umol/kg)

Test Article	0			1		10	
	Mean	Mean	% of Control	Mean	% of Control	Mean	% of Control
PBDE-47	0.12 ± 0.03 (4)	0.12 ± 0.02 (5)	107.83	0.11 ± 0.01 (5)	99.13	0.10 ± 0.01 (5)	88.70
decaBDE	0.05 ± 0.01 (6)	0.05 ± 0.02 (2)	96.43	0.05 ± 0.01 (6)	100.00	0.07 ± 0.00 (6)	139.29
HBCD	0.12 ± 0.02 (5)	0.09 ± 0.01 (6)	69.89	0.09 ± 0.01 (6)	69.89	0.10 ± 0.01 (6)	83.33
TBB	0.07 ± 0.01 (4)	0.12 ± 0.01 (6) *	169.05	0.10 ± 0.01 (6)	140.48	0.10 ± 0.02 (5)	148.57
TBPH	0.10 ± 0.01 (6)	0.10 ± 0.01 (6)	96.77	0.09 ± 0.02 (6)	83.87	0.10 ± 0.01 (6)	93.55
TBBPA-DBPE	0.10 ± 0.01 (6)	0.09 ± 0.02 (6)	83.61	0.09 ± 0.01 (6)	88.52	0.09 ± 0.02 (6)	83.61
BTBPE	0.12 ± 0.01 (6)	0.12 ± 0.01 (6)	102.86	0.13 ± 0.02 (6)	108.57	0.11 ± 0.01 (6)	94.29
DBDPE	0.11 ± 0.03 (6)	0.11 ± 0.02 (6)	92.65	0.14 ± 0.02 (6)	122.06	0.11 ± 0.01 (6)	94.12
HCDBCO	0.09 ± 0.01 (5)	0.12 ± 0.02 (5)	138.64	0.09 ± 0.01 (6)	96.59	0.09 ± 0.02 (6)	102.27

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Large Unstained Cells (10³/uL)

Treatment Groups (umol/kg)

Test Article	100		1000	
	Mean	% of Control	Mean	% of Control
PBDE-47	0.10 ± 0.02 (6)	84.06	0.08 ± 0.02 (6)	69.57
decaBDE	0.06 ± 0.01 (5)	124.29	0.05 ± 0.01 (5)	115.71
HBCD	0.09 ± 0.01 (6)	69.89	0.11 ± 0.01 (6)	87.37
TBB	0.10 ± 0.01 (6)	147.62	0.10 ± 0.01 (6)	135.71
TBPH	0.08 ± 0.00 (5)	81.29	0.13 ± 0.02 (6)	120.97
TBBPA-DBPE	0.10 ± 0.02 (6)	93.44	0.09 ± 0.01 (6)	85.25
BTBPE	0.11 ± 0.01 (6)	92.86	0.11 ± 0.02 (5)	90.86
DBDPE	0.10 ± 0.03 (6)	85.29	0.12 ± 0.03 (5)	105.88
HCDBCO	0.11 ± 0.01 (6)	123.11	0.09 ± 0.01 (6)	106.06

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LEGEND

Values given as mean \pm SEM (N) with Percent of Control calculated by (dosed group mean / control group mean) x 100

Statistical analysis 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 $P \leq 0.01$

Legacy Flame Retardants: PBDE-47 = 2,2',4,4'-Tetrabromodiphenyl ether; decaBDE = Decabromodiphenyl ether; HBCD = 1,3,5,7,9,11-Hexabromocyclododecane

Emerging Flame Retardants: TBB = 2-Ethylhexyl-2,3,4,5-tetrabromobenzoate; TBPH = Bis(2-ethylhexyl) tetrabromophthalate; TBBPA-DBPE = Tetrabromobisphenol A-bis(2,3 dibromopropyl ether); BTBPE = 1,2-Bis(2,4,6-tribromophenoxy)ethane; DBDPE = 1,2-Bis(pentabromophenyl)ethane; HCDBCO = Hexachlorocyclopentadienyl-dibromocyclooctane

TBB: One value each for Hemoglobin, Mean Cell Hemoglobin, and Mean Cell Hemoglobin Concentration in the 0 umol/kg group were excluded.

**** END OF REPORT ****