WEB Table 1: BBP General Toxicity, Male Rats

Species, Strain, and Source	Experimental Regimen	Animal Number	Dose*	Body Weight	Organ Weight	Histopathology	Hematopoietic System	Chemistry	Other
Fischer 344 Rat Agarwal 1985 (1)	Adult male rats were fed diets with BBP at 0, 0.625, 1.25, 2.5, or 5.0% for 14 days, then were sacrificed and necropsied.	10	0						
		10	447[a]	NE	↑Li and Ki	NE	NE	↑LH	LOAEL
		10	890[a]	NE	↑Li and Ki	NE	NE	NE	NE
		10	1,338[a]	↓	↓Te and SV ↑Li and Ki ↓Th	Dose-related increase in severity of morphological changes in seminal vesicles, testes and prostate.	↓Bone marrow cellularity.	↑FSH ↑LH	↓Food consumption.
		10	1,542[b]	↓	↓Te, SV, Ep ↑Li, Ki ↓Th	Mild multifocal chronic hepatitis in liver. Cortical lymphocytolysis in thymus (atrophy).	↓Bone marrow cellularity.	↓Test ↑FSH ↑LH	Food consumption.

*Dose in mg/kg bw/day.
[a]Doses calculated using pre-treatment body weights (200 g) and average food consumed per group during 14-day study.
[b]Dose calculated from average body weight during study (since there was a weight loss) and food consumed during the 14-day study.

NE = No Effects
↑= Statistically Significant Increase
↓=Statistically Significant Decrease
Li = Liver
Ki = Kidney
Th = Thymus
Te = Testes
Ep = Epididymis
SV = Seminal Vesicle
LH = Luteinizing Hormone
Test=Testosterone
FSH=Follicle Stimulating Hormone

WEB Table 2: BBP General Toxicity, Rats

Species, Strain, and Source	Experimental Regimen	Animal Number/ Sex	Dose**	Body Weight	Organ Weight	Histopathology	Hematology	Chemistry	Other
Sprague Dawley Rat	4–6 week-old rats were fed diets with BBP at 2,500–20,000 ppm for 3 months, then were sacrificed and necropsied.	10	0						
		10	188	NE	NE	NE	NE	NA	
		10	375	NE	NE	NE	NE	NA	NOAEL
		10	750	NE	↑Ki(M), Li(F)	NE	NE	NA	LOAEL
		10	1,125	↓(M)*	↑Ki(M), Li	NE	NE	NA	
		10	1,500	↓*	↑Ki(M), Li	NE in liver, testes, or pancreas	NE	NA	
Wistar Rat	4–6 week-old rats were fed diets with BBP at 2,500–12,000 ppm for 3 months and sacrificed and necropsied.	27–45	0						
		27–45	151(M)–171(F)	↓(M)*	↑Li and Ce(F)	NE	NE	NE	LOAEL
		27–45	381(M)–422(F)	↓*	↑Li and Ce(F), Ki	Pancreatic lesions	NE	NE	↓Urinary pH (M)
		27–45	960(M)–1,069(F)	↓*	↑Ce(F), Li, Ki	Hepatic necrosis and pancreatic lesions	Anemia(M)	NE	↓Urinary pH (M)
Sprague-Dawley Rat Hammond 1987 (*2*)	6–8 week-old rats inhaled BBP mists at 50, 218, or 789 mg/m^3 for 6 hours/day, 5 days/week for 13 weeks, then were sacrificed and necropsied.	25	0						
		25	9.2(M)/9.8(F)	NE	NE	NE	NE	NE	
		25	39.4(M)/42(F)	NE	NE	NE	NE	NE	NOAEL
		25	143(M)/152(F)	NE	↑Li, Ki	NE	NE	↓Serum glucose (M, 13wk)	LOAEL

*Statistical significance is unknown
NE=No Effect
↓=Statistically Significant Decrease
**Dose in mg/kg bw/day
F=Female
Ki=Kidney
[a]Organ to body weight ratio
wk=Week
NA=Not Analyzed
↑= Statistically Significant Increase
M=Male
Li=Liver
Ce=Cecum

WEB Table 3: BBP General Toxicity, Male Rats

Species, Strain, and Source	Experimental Regimen	Animal Number	Dose*	Body Weight	Organ Weight	Histopathology	Epididymal Sperm Count	Hematology	Other
Fischer 344/N Rat NTP 1997 (*3*)	Sub-chronic study (26 wk) 6-week-old male rats fed diets with BBP at 0, 300, 900, 2,800, 8,300, and 25,000 ppm. Hematological measurements taken every 30 days. Rats were killed and necropsied at the end of the study, epididymal sperm counts were taken.	13	0						
		14	30	NE	NE	NA	NA	NE	
		14	60	NE	NE	NA	NE	NE	
		14	180	NE	NE	NA	NE	NE	NOAEL
		15	550	NE	↑Li[b]	NE	NE	↑Hb day 60–180	LOAEL
		11	1,650[a]	↓	↑Li, Ki[b] ↓Te[b] ↓SV, Ep[c]	Testicular and epididymal degeneration and seminiferous tubule atrophy.	↓ Sperm counts.	↑Macrocytic anemia days 30–180.	

*Dose in mg/kg bw/day.
[a]The dose for the highest exposure level could not be calculated but was estimated from lower doses, assuming equal body weight and food intake.
[b]Organ to body weight ratio.
[c]Absolute organ weight.

NA=Not analyzed
NE=No effects
↑= Statistically significant increase
↓=Statistically significant decrease
M=Male
F=Female
Li=Liver
Ki=Kidney
Te=Testes
Ep=Epididymis
SV=Seminal Vesicle
Hb=Hemoglobin

WEB Table 4: BBP General Toxicity, Rats

Species, Strain, and Source	Experimental Regimen	Animal Number	Dose*	Body Weight	Organ Weight	Histopathology	Hematology	Chemistry	Other
Fischer 344/N Rat NTP 1997 (*3*)	6-week-old rats were fed diets with BBP at 0, 3,000, 6,000, and 12,000 ppm (M); 0, 6,000, 12,000, and 24,000 ppm (F) for 2 years. Hematological analysis was conducted at 6, 8, and 15 months and hormone levels were measured at 6, 15, and 24 months. Organ weights were measured at 15 months and histopathology was evaluated at 15 and 24 months.		0						
			Male:						
		60	120	NE	↑Ki	NE	NE	NE	
		60	240	NE	↑Ki ↑Ep	NE	NE	NE	
		60	500	↓	↑Ki, Li ↑Ep	Renal tubule pigmentation (15–24 mo). Hepatic granuloma (24 mo). No testicular effects. Focal pancreatic hyperplasia and *some evidence* of pancreatic carcinogenicity.	↓RBC (6 mo). ↑Hb (6 mo).	NE	↑Skin lesions.
			Female:						
		60	300	NE	NE	Nephropathy (24 mo).	NE	NE	
		60	600	NE	NE	Nephropathy (24 mo).	NE	NE	
		60	1,200	↓		Renal tubule pigmentation (15–24 mo). Nephropathy (24 mo). *Equivocal evidence* of pancreatic and urinary bladder carcinogenicity .	↑Microcytic anemia (15 mo).	↓Triiodothyronine (6–15 mo).	

*Dose in mg/kg bw/day.
[a]Organ to body weight ratio.
NA=Not analyzed
↑= Statistically significant increase
NE=No effects
↓=Statistically significant decrease
M=Male
F=Female
Ep=Epididymis
Li=Liver
Ki=Kidney
RBC=Red Blood Cell
mo=Month
Hb=Hemoglobin

WEB Table 5: BBP Developmental Toxicity, Rats

Species, Strain, and Source	Experimental Regimen	Numbers[a]	Dose*	Maternal effects	Fetal effects
CD Rat Field 1989 (*4*)	Prenatal developmental toxicity study. BBP administered in feed on gd 6–15, at 0, 0.5, 1.25, 2.0%. Sacrificed on gd 20. Dams weighed on gd 0, 3, 6, 9, 12, 15, 18, and 20. Maternal liver, kidney, and intact uterus were weighed, corpora lutea were counted and implantation sites examined. All fetuses were weighed and examined for gross external, visceral, and skeletal malformations.	28 27 30 29	0 420 1.100 1,640	 NOAEL ↓ Weight gain (37%). ↑ Liver to body weight ratio. ↑ Food and water intake. ↓ Weight gain (93%). ↓ Corrected weight gain (17%). ↑ Liver to body weight ratio with no pathological effects. ↑Kidney to body weight ratio . ↑ Food and water intake. Clinical signs of toxicity.	 NOAEL Fetuses with variations/litter (41 vs 19%) ↓ Fetal Weight (20%). ↓ Live fetuses/litter (n=10 vs 15). ↑ Resorptions/litter (40 vs 4%) and litters with resorptions (86 vs 32%). ↑ Fetuses with variations/litter (71 vs 19%). ↑ Fetuses with malformations (53 vs 2%); Litters with malformations (96 vs 25%) (visceral, external, and skeletal, especially of the urinary tract, eyes, and spine).

*Dose in mg/kg bw/day.
[a]Number of dams pregnant at sacrifice.
↑=Statistically Significant Increase
↓=Statistically Significant Decrease
gd=Gestation day

WEB Table 6: BBP Developmental Toxicity, Rats

Species, Strain, and Source	Experimental Regimen	Numbers[a]	Dose *	Maternal effects	Fetal effects
Wistar Rats Ema 1990 (5)	Prenatal developmental toxicity study. Rats were fed diets with DBP at 0, 0.25, 0.5, 1.0, 2.0% from gd 0–20. Body weights and food intake were measured daily. Dams were sacrificed on gd 20. Implantation sites were examined. Pups were sexed, weighed, and evaluated for external malformations. Two-thirds of fetuses were examined for skeletal malformations and 1/3 for visceral malformations.	15 (15)	0		
		17 (17)	185	NE	NOAEL
		15 (15)	375	NOAEL	↓Live fetuses/litter (n=11.3 vs 13.9).
		13 (13)	654	↓Weight gain (35%). ↓ Adjusted weight gain (96%). ↓Food Intake.	↓Fetal weight (7%). ↓Live fetuses/litter (n=12.3 vs 13.9).[c]
		13 (0)	974	Weight loss (15 g). Adjusted weight loss (21 g).[b] ↓Food Intake.	Complete postimplantation loss in all litters. Treatment-related increases in malformations, variations, or retardations were not seen at any dose.

*Dose in mg/kg bw/day.

[a]Number of pregnant rats (Number of litters evaluated). [b]Body weight not including gravid uterus weight. [c]Not statistically significant

NE=No Effect n=Number ↓=Statistically Significant Decrease ↑=Statistically Significant Increase

WEB Table 7: BBP Developmental Toxicity, Rats

Species, Strain, and Source	Experimental Regimen	Numbers[a]	Dose *	Maternal effects	Fetal effects
Wistar Rats Ema 1992 (*6*)	Prenatal developmental toxicity study. Rats were gavaged with BBP on gd 7–15. Body weights and food intake were measured daily. Dams were sacrificed on gd 20. Implantation sites were examined. Pups were sexed, weighed, and evaluated for external malformations. Two-thirds of fetuses were examined for skeletal malformations and 1/3 for visceral malformations.	10 (10) 10 (10) 10 (7) 10 (0)	0 500 750 1,000	 NOAEL ↓ Body weight gain. ↓ Food intake. ↑ Death (4 dams). ↓ Corrected body weight gain.[b] ↓ Food intake.	 NOAEL Complete resorption in 3/10 litters. ↑ Fetal death/litter (n=11 vs 1). ↑ Postimplantation loss/litter (82 vs 8%). ↓ Fetal weight (18%). ↑ External (12 fetuses/7 litters vs. 0), skeletal (5 fetuses/4 litters vs. 1), and internal (3 fetuses/3 litters vs. 0) malformations. Complete resorption in 6/6 litters.

*Dose in mg/kg bw/day.
[a]Number of pregnant rats (Number of litters evaluated).
[b]Body weight not including gravid uterus weight.
n=Number
↓=Statistically Significant Decrease
↑=Statistically Significant Increase
Gd=gestation day

WEB Table 8: BBP Developmental Toxicity, Mice

Species, Strain, and Source	Experimental Regimen	Numbers[a]	Dose*	Maternal effects	Fetal effects
CD-1 Mice Price 1990 (*7*)	Prenatal developmental toxicity study. BBP administered in feed at 0, 0.1, 0.5, 1.25% on gd 6–15. Sacrificed on gd 17. Dams weighed on gd 0, 3, 6, 9, 12, 15, and 17. Maternal liver, kidney, and intact uterus were weighed, corpora lutea were counted and implantation sites examined. All fetuses were weighed and examined for gross external, visceral, and skeletal malformations.	29 28 30 27	 182 910 2,330	 Maternal NOAEL ↓ Weight gain (15%). ↓ Weight gain (71%). ↓ Corrected weight gain (25%). ↑ Water intake. ↑ Liver and kidney to body weight ratio with no pathological effects.	 Developmental NOAEL ↑ Late fetal deaths/litter (2.9 vs 0.7%). ↑ Non-live implants/litter (15 vs 8%)[b]. ↓ Live fetuses/litter (n=12 vs 13). ↑ Fetuses/litter with malformations (14 vs 4%); litters with malformations (60 vs 31%). ↑ Resorptions/litter (91 vs 7%); Litters with resorptions (100 vs 55%). ↑ % Non-live implants/litter (93 vs 8%); Litters with non-live implants (100 vs 59%)[b]. ↓ Live fetuses/litter (n=3 vs 13). ↓ Fetal weight (17%). ↑ Fetuses/litter with malformations (89 vs 4%). ↑ Litters with malformations (100 vs 31%), especially external and skeletal defects of the tail, ribs, sternebrae and vertebrae. ↑ Fetuses with variations/litter (98 vs 29%).

*Dose in mg/kg bw/day .
[a]Number of pregnant dams evaluated at sacrifice.
Gd=gestation day
↓=Statistically Significant Decrease
[b]Non-live implants include resorptions and late fetal deaths.
↑=Statistically Significant Increase
n=Number

WEB Table 9: BBP Developmental Toxicity, Rats

Species, Strain, and Source	Experimental Regimen	Numbers[a]	Dose*	Maternal effects	Fetal effects
Wistar Rat Sharpe 1995 (*8*)	Pre- and post-natal developmental toxicity study. Female rats were exposed to BBP through drinking water at 0 or 1 mg/L for 2 weeks prior to mating, and during mating, gestation and lactation. Rats were mated to untreated males. Dams were allowed to litter. Litter sizes were evaluated at birth. At 90–95 days of age, male offspring were sacrificed and organ weights were determined. After the first litters were weaned, the experiment was repeated in the same dams. Additional parameters monitored included testicular morphology in 2 pups/group and sperm counts in 7–12 pups/group.	5	0		
		5	0.126–0.336	NA	↑ Body weight on pnd 22 (11%). ↓ Absolute testes weight (10%) and testes to body weight ratio (8%).
		6	*0.0011 DES[b]*		¯*Body weight on pnd 22.* ¯ *Absolute testes weight and testes to body weight ratio*
		6	0		
		5	0.126–0.336	NA	↑ Body weight on pnd 22 (14%). ↓ Absolute testes weight (7%) and testes to body weight ratio (7%). ↓ Daily sperm production (~10–21%).
		5	*0.0011 DES[b]*		- *Body weight on pd 22.* ¯ *Absolute testes weight and testes to body weight ratio.* ¯ *Daily sperm production.*

*Dose in mg/kg bw/day.
[a]Total litters evaluated. The number of treated dams was not stated. [b]Positive DES control, dose estimated by CERHR.

NA=Not Analyzed
↑=Statistically Significant Increase
↓=Statistically Significant Decrease

WEB Table 10: BBP Developmental Toxicity, Rats

Species, Strain, and Source	Experimental Regimen	Numbers[a]	Dose*	Maternal effects	Offspring effects
Wistar AP Rat Ashby 1997 (*10*)	Pre- and post-natal developmental toxicity study. Rats were exposed to BBP through drinking water at 1 mg/L during gestation and lactation (gd 1–pnd 20). Body weights were measured on gd 1, 4, and 22 and pd 3, 7, 14, and 20. Water intake was measured daily. Dams were allowed to litter and following weaning of pups, were killed and necropsied. Liver enzyme activity, hematology, and micronucleated erythrocytes were assessed. Pups were sexed, weighed, and evaluated for sexual maturation. Uterotrophic effects were examined in groups of 10 female rats on pnd 21 and 24. The majority of pups were sacrificed and necropsied on pnd 90 and 10 males/group were sacrificed on pnd 137. Sperm analysis was conducted at necropsy. FSH-positive pituitary cells were counted in 9 rats/sex.	19			
		18	0.183	NE	↑ Male pup weight on pnd 2 (13%). ↑ Anogenital distance in males on pnd 2 (4%)[b]. ↓ Age of vaginal opening (34 vs 35.1 days)[b]. ↑ Liver to body weight ratios in males (4%). No effects on sperm counts, testes weight, or uterotrophic response.
		5	*0.0086 DES*[a]	*¯Body weight*	*¯Body weight.* *-Uterine weight and uterotrophic response.* *-Absolute ovarian weight.* *¯Anogenital distance in males and females.* *¯Age of vaginal opening.* *-Age of preputial separation.* *¯Decrease testis, epididymis, seminal vesicle, and prostate weight.* *¯Decreased sperm count.*

*Dose in mg/kg bw/day.
[a]Positive DES control
[b]Authors considered effects to be related to increased pup weight

NE=No Effect
↑=Statistically Significant Increase
↓=Statistically Significant Decrease
Gd=gestation day
pnd=postnatal day

WEB Table 11: BBP Developmental Toxicity, Rats

Species, Strain, and Source	Experimental Regimen	Numbers[a]	Dose*	Maternal effects	Fetal effects
Wistar Rat TNO 1998 (*9*)	Pre- and post-natal developmental toxicity study. Female rats were exposed to BBP through drinking water at 0.1, 1, or 3 mg/L for 2 weeks prior to mating, and during mating, gestation and lactation. Rats were mated for 1 week to untreated males, that were only exposed to BBP while breeding. Body weights and food intake were measured weekly and water intake was measured daily. Dams were allowed to litter and following weaning of pups, were killed, necropsied, and implantation sites were examined. Pups were weighed, examined for abnormalities, evaluated for sexual maturation and function, and necropsied at 89–101 days of age.	25	0		
		23	0.012	NE	NE
		22	0.140	NE	↑Pup death on pnd 1–4 (14 vs 0.8%) (Pup death/litter not significant). ↑Large pups (pnd 4).
		24	0.385	NE	↑Pup death on pnd 1–4 (12 vs 0.8%) (Pup death/litter not significant). ↑Cold pups (pnd 1). ↑Large pups (pnd 4). ↑Hair loss. No effects on sperm morphology, number, or motility; estrous cycles; or sexual maturation at any dose level.
		21	*0.0011-0.0055 DES*[a]	*¯Gestational weight gain.* *-Duration of pregnancy.*	*-Pup death (pnd 1-4).* *¯Live pups/litter.* *¯Decreased weight gain.* *-Age of preputial separation .* *¯ Normal sperm.* *¯Sperm count (significance not known).* *¯Testes weight.*
	The study was repeated with BBP to verify postnatal pup deaths	26	0		
		22	0.140		↓Pup death on pnd 1–4 (4.6 vs 10%).
		24	0.385		↑ Pup death on pnd 1–4 (17 vs 10%). ↑Stillborn pups (n=28 vs 13) (Both effects/litter were insignificant).

*Dose in mg/kg bw/day.

[a]Positive DES control, dose estimated by CERHR. NE=No Effect n=Number ↑=Statistically Significant Increase ↓=Statistically Significant Decrease

WEB Table 12: BBP Developmental Toxicity, Rats

Species, Strain, and Source	Experimental Regimen	Numbers[8]	Dose**	Maternal effects	Fetal effects
Wistar Rat Bayer 1998 (*11*)	Pre- and post-natal developmental toxicity study. Female rats were exposed to BBP through drinking water or diet at 0, 1, or 3 ppm for 2 weeks prior to mating, and during mating, gestation and lactation. Rats were mated for up to 3 weeks to untreated males, that were only exposed to BBP while breeding. Body weights and food and water intake were measured every 3–7 days. Dams were allowed to litter and following weaning of pups, were killed, necropsied, and examined for implantation sites. At birth, pups were counted, weighed, and examined for abnormalities. Pups were evaluated for survival and weight gain until pnd 21, when they were sacrificed and necropsied.	21–22 22–25 24	0 0.08–0.09/0.06–0.07/0.11–0.06[a] 0.10–0.12/0.11–0.11/0.17–0.24[b] 0.27–0.28/0.19–0.25/0.34–0.49[c] 0.34–0.35/0.35–0.35/0.54–0.80[d]	No significant effects on fertility, body weight gain or food and water intake.	Non-significant increase in resorptions in both dose groups. No significant effects on litter size, pup viability from birth to pnd 4, and pup weight.

[8]Number of females that gave birth to a live litter/exposure media.
**Dose in mg/kg bw/day.
[a]Exposure through 1 ppm diet during prebreed/gestation/lactation.
[b]Exposure through 1 ppm drinking water during prebreed/gestation/lactation.
[c]Exposure through 3 ppm diet during prebreed/gestation/lactation.
[d]Exposure through 3 ppm drinking water during prebreed/gestation/lactation.

pnd=postnatal day

WEB Table 13: BBP Reproductive Toxicity Screening Study, Rats

Species, Strain, and Source	Experimental Regimen	Dose*	Paternal	Effects Maternal	Litters
WU Rat Piersma 1995 (*12*)	Reproduction screening study. BBP administered by gavage to male and females rats 10–11 weeks old for 2 weeks prior to mating. Males were dosed for a total of 29 days and females were dosed until pnd 6. Rats were housed together 1:1 for a maximum of 2 weeks. Body weight and food intake were measured weekly. Dams delivered and nursed pups. F_0 were evaluated for fertility and reproductive function, and were killed and necropsied at end of dosing period. Implantation sites were examined and histopathology was conducted. Litters were examined for external malformations, counted, sexed, weighed, and sacrificed and discarded on pnd 6.	0 250 500 1,000	 NE NE ↓Weight gain (21%). ↓ Testis and epididymis weight in F_0 males (14%). ↑Leydig cell hyperplasia and testicular degeneration.	9/10 females conceived. 8/10 females conceived. 7/10 females conceived. 4/10 females conceived. ↓Gestational weight gain (42%).	 ↓Pup weight on pnd 1(7%). ↓Live pups/litter at birth (n=2 vs 9) and pnd 6 (n=1 vs 9). ↓Pup weight on pnd 1 and 6 (29% and 43%).

*Dose in mg/kg bw/day.
NE=No Effect ↑=Statistically Significant Increase ↓=Statistically Significant Decrease n=Number
pnd=postnatal day

WEB Table 14: BBP Reproductive Toxicity, Rats

Species, Strain, and Source	Experimental Regimen	Animal Number	Dose[b]	Effects
Wistar Rat TNO 1993 (*13*)	One generation reproductive toxicity study. BBP administered in feed at 0, 0.2, 0.4, 0.8% for 10 weeks and 2 weeks before mating in males and females, respectively, and throughout rest of study. Body weight and food intake measured weekly. One male and two females housed together for 3 weeks. Dams nursed pups through pnd 21. Dams were rebred after first litter was weaned. Study was repeated in the same rats. Litters examined counted, sexed, and weighed. After weaning, F_1 examined for external abnormalities and sacrificed. F_0 rats were killed and necropsied. Histopathology examined in liver and reproductive tissue of control and high-dose group.	12(M)/ 21–20(F)[a]	0	
		12(M)/ 17–22(F)	108/106 116/252	NE
		12(M)/ 20–21(F)	206/217 235/580	NE
		12(M)/ 17–22(F)	418/446 458/1,078	↑Liver to body weight ratios in F_0 females. ↓Weight gain of F_0 females during gestation and lactation. ↓F_{1b} pup weight on pnd 21 (12%). No effects on implantations, reproductive organ morphology, or fertility, fecundity, and gestation indices.

[a]Number of males and females delivering first and second litter, respectively.
[b]Doses (in mg/kg bw/day) for males during premating / females during premating / females during gestation / females during lactation.

NE=No Effect
↑=Statistically Significant Increase
↓=Statistically Significant Decrease
pnd=postnatal day

WEB Table 15: BBP Reproductive Toxicity, Male Rats

Species, Strain, and Source	Experimental Regimen	Animal Number	Dose*	Effects
F344/N Rat NTP 1997 (*3*)	Sub-chronic reproductive toxicity study (10 wks), in 6-week-old males. BBP was administered in feed at 0, 300, 2,800, and 25,000 ppm for 10 weeks prior to mating. Body weight and food intake were measured weekly. Each male was mated to 2 untreated females for 7 days. Reproductive parameters included fertility and fetal mortality. Males were then killed and examined for hematological, sperm, and histopathological effects. Females were killed and examined for corpora lutea and implantation sites on gd 13 or 13 days after mating.	15 15 15 15	0 20 200 2,200	 NE NOAEL ↓ Sperm concentration (>99%). Evidence of mating in 10/13 females; no pregnancies. ↓Prostate and testes to body weight ratio. ↓Epididymis and seminal vesicle weight. Testicular and epididymal degeneration. ↓Body weight gain (29%). ↑Liver and thymus to body weight ratio. Mild macrocytic anemia response.

*Dose in mg/kg bw/day
↑=Statistically Significant Increase
↓=Statistically Significant Decrease
Gd=gestation day

WEB Table 16: MBuP Developmental Toxicity, Rats

Species, Strain, and Source	Experimental Regimen	Numbers[a]	Dose*	Maternal effects	Developmental effects
Wistar-King A rats. Imajima et al. (*14*)	Pre-and post-natal developmental toxicity study with prenatal exposure. Rats were gavaged with 0 or 300 mg/day MBuP in sesame oil from gd 15–18. Testicular descent was evaluated in male offspring on gd 20 or pnd 30–40.	19/15 15/26	0 1,000	Not reported.	Testicular ascent on gd 20. ↑ Chryptorchidism in 22/26 male pups on pnd 30–40 with 87% of the undescended testes in abdominal cavity and 13% in the inguinal ring.

*Dose in mg/kg bw/day.
[a]Number of male fetuses evaluated on gd 20 / pnd 30–40.
Gd=gestation day
↑=Statistically Significant Increase
pnd=postnatal day

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