Study Number: R10997 Test Type: RACB Route: Dosing in Feed

Species/Strain: Rat/Sprague-Dawley

Study Number:

Study Gender:

PWG Approval Date:

Version:

PA46R: Summary of Gross Pathology with Litter Incidence
Test Compound: Diisobutyl Phthalate

CAS Number: 84-69-5

R10997

Both

See web page for date of PWG Approval

v1.1.8

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

Test Type: RACB

Route: Dosing in Feed

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate

Species/Strain: Rat/Sprague-Dawley

CAS Number: 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

| | F0 Male | | | | | |
|--|------------------------|------|------|----------|--|--|
| | Treatment Groups (ppm) | | | | | |
| | 0 | 1000 | 5000 | 10000 | | |
| Disposition Summary | | | | | | |
| Animals Initially In Study | 23 | 23 | 23 | 23 | | |
| Censored | | | | | | |
| Early Deaths | | | | | | |
| Survivors | | | | | | |
| Scheduled Sacrifice, Terminal | 23 | 23 | 23 | 23 | | |
| Number of Animals Examined | 23 | 23 | 23 | 23 | | |
| ALIMENTARY SYSTEM | | | | | | |
| None | | | | | | |
| CARDIOVASCULAR SYSTEM | | | | | | |
| None | | | | | | |
| ENDOCRINE SYSTEM | | | | | | |
| None | | | | | | |
| GENERAL BODY SYSTEM | | | | | | |
| FAT | (23) | (23) | (23) | (23) | | |
| MESENTERY; DISCOLORATION; YELLOW; MODERATE | | | | 1 (4.3%) | | |
| MESENTERY; FIRM; MODERATE | | | | 1 (4.3%) | | |

Study Number: R10997 Test Type: RACB

Route: Dosing in Feed

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate

Species/Strain: Rat/Sprague-Dawley

CAS Number: 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

F0 Male

| | Treatment Groups (ppm) | | | | |
|--|------------------------|-----------|-----------|-----------|--|
| | 0 | 1000 | 5000 | 10000 | |
| GENITAL SYSTEM | | | | | |
| EPIDIDYMIS | (23) | (23) | (23) | (23) | |
| CAUDA; DISCOLORATION; TRIANGULAR, YELLOW; MILD | 1 (4.3%) | | | | |
| CAUDA; DISCOLORATION; YELLOW; MODERATE | 1 (4.3%) | | | | |
| REDUCED IN SIZE; MARKED | | | | 1 (4.3%) | |
| PREPUTIAL GLAND | (23) | (23) | (23) | (23) | |
| DISCOLORATION; GREEN; ALL SEVERITIES | 9 (39.1%) | 8 (34.8%) | 3 (13.0%) | 8 (34.8%) | |
| DISCOLORATION; GREEN; MILD | 3 (13.0%) | 4 (17.4%) | 2 (8.7%) | 6 (26.1%) | |
| DISCOLORATION; GREEN; MINIMAL | 4 (17.4%) | 4 (17.4%) | | 1 (4.3%) | |
| DISCOLORATION; GREEN; MODERATE | 2 (8.7%) | | 1 (4.3%) | 1 (4.3%) | |
| DISCOLORATION; TAN; ALL SEVERITIES | | 2 (8.7%) | 1 (4.3%) | 1 (4.3%) | |
| DISCOLORATION; TAN; MILD | | 1 (4.3%) | 1 (4.3%) | 1 (4.3%) | |
| DISCOLORATION; TAN; MINIMAL | | 1 (4.3%) | | | |
| ENLARGED; MARKED | | | | 1 (4.3%) | |
| TESTIS | (23) | (23) | (23) | (23) | |
| FIRM; MODERATE | | | | 1 (4.3%) | |
| REDUCED IN SIZE; MARKED | | | | 1 (4.3%) | |
| HEMATOLYMPHOID SYSTEM | | | | | |
| None | | | | | |
| INTEGUMENTARY SYSTEM | | | | | |
| SKIN | (23) | (23) | (23) | (23) | |
| ABDOMINAL; ALOPECIA; MINIMAL | | | | 1 (4.3%) | |
| ALOPECIA; MILD | | | 1 (4.3%) | | |
| ABDOMINAL; CRUST; BROWN; MINIMAL | | | | 1 (4.3%) | |
| CRUST; MINIMAL | | | 1 (4.3%) | | |

Test Type: RACB

Route: Dosing in Feed

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Species/Strain: Rat/Sprague-Dawley

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

| | F0 Male | | | | | |
|---|------------------------|------|------------------|-------|--|--|
| | Treatment Groups (ppm) | | | | | |
| | 0 | 1000 | 5000 | 10000 | | |
| MUSCULOSKELETAL SYSTEM None | | | | | | |
| NERVOUS SYSTEM None | | | | | | |
| RESPIRATORY SYSTEM None | | | | | | |
| SPECIAL SENSES SYSTEM EYE PERIORBITAL; DISCOLORATION; BROWN; MILD | (23) | (23) | (23) 1 (4.3%) | (23) | | |
| URINARY SYSTEM KIDNEY CORTEX; DEFORMITY; MODERATE | (23) 1 (4.3%) | (23) | (23) | (23) | | |

Test Type: RACB

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate

Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

CAS Number: 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

F0 Female

| | Treatment Groups (ppm) | | | | |
|-------------------------------|------------------------|----------|----------|----------|--|
| | 0 | 1000 | 5000 | 10000 | |
| Disposition Summary | | | | | |
| Animals Initially In Study | 23 | 23 | 23 | 23 | |
| Censored | | | | | |
| Early Deaths | | | | | |
| Sacrificed, Moribund | 2 | 2 | 2 | 1 | |
| Survivors | | | | | |
| Scheduled Sacrifice, Terminal | 21 | 21 | 20 | 22 | |
| Number of Animals Examined | 23 | 23 | 23 | 23 | |
| ALIMENTARY SYSTEM | | | | | |
| LIVER | (23) | (23) | (23) | (23) | |
| DISCOLORATION; MOTTLED; MILD | | | 1 (4.3%) | | |
| NODULE; TAN | | | | 1 (4.3%) | |
| SALIVARY GLAND | (23) | (23) | (23) | (23) | |
| ENLARGED; SOFT; MILD | | 1 (4.3%) | | | |
| CARDIOVASCULAR SYSTEM | | | | | |
| None | | | | | |
| ENDOCRINE SYSTEM | | | | | |
| None | | | | | |
| GENERAL BODY SYSTEM | | | | | |
| FAT | (23) | (23) | (23) | (23) | |
| MESENTERY; MASS; YELLOW | 1 (4.3%) | | | | |

Test Type: RACB

Route: Dosing in Feed

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate

Species/Strain: Rat/Sprague-Dawley

CAS Number: 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

F0 Female

| | Treatment Groups (ppm) | | | |
|----------------------------|------------------------|------|----------|----------|
| | 0 | 1000 | 5000 | 10000 |
| GENITAL SYSTEM | | | | |
| CLITORAL GLAND | (23) | (23) | (23) | (23) |
| ENLARGED; MARKED | | | | 1 (4.3%) |
| OVARY | (23) | (23) | (23) | (23) |
| CYST; CLEAR; MARKED | | | | 1 (4.3%) |
| CYST; CLEAR | 1 (4.3%) | | | |
| CYST; CLEAR , SINGLE; MILD | 1 (4.3%) | | | |
| UTERUS | (23) | (23) | (23) | (23) |
| DILATION; CLEAR; MODERATE | 1 (4.3%) | | | |
| HEMATOLYMPHOID SYSTEM | | | | |
| LYMPH NODE, MESENTERIC | (23) | (23) | (23) | (23) |
| ENLARGED; MODERATE | | | 1 (4.3%) | |
| SPLEEN | (23) | (23) | (23) | (23) |
| ENLARGED; ALL SEVERITIES | | | 2 (8.7%) | 1 (4.3%) |
| ENLARGED; MARKED | | | 1 (4.3%) | |
| ENLARGED; MILD | | | 1 (4.3%) | 1 (4.3%) |

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate

CAS Number: 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

Species/Strain: Rat/Sprague-Dawley

Study Number: R10997

Route: Dosing in Feed

Test Type: RACB

F0 Female

| | Treatment Groups (ppm) | | | |
|--|------------------------|----------|----------|----------|
| | 0 | 1000 | 5000 | 10000 |
| NTEGUMENTARY SYSTEM | | | | |
| MAMMARY GLAND | (23) | (23) | (23) | (23) |
| ABDOMINAL; DISCOLORATION; RED; MILD | | 1 (4.3%) | | |
| AXILLARY; ENLARGED; MODERATE | | 1 (4.3%) | | |
| INGUINAL; ENLARGED; MULTIFOCAL; MARKED | 1 (4.3%) | | | |
| CERVICAL; MASS; SOFT | | 1 (4.3%) | | |
| INGUINAL; MASS; SOFT | 1 (4.3%) | | | |
| SKIN | (23) | (23) | (23) | (23) |
| FORELIMB; ALOPECIA; MODERATE | 1 (4.3%) | | | |
| SHOULDER; MASS; ULCERATED, RED | | | 1 (4.3%) | |
| SKIN, ABDOMINAL | (23) | (23) | (23) | (23) |
| ULCER; MARKED | | | | 1 (4.3%) |
| SKIN, MAMMARY | (23) | (23) | (23) | (23) |
| MASS | | | 1 (4.3%) | |

MUSCULOSKELETAL SYSTEM

None

NERVOUS SYSTEM

None

RESPIRATORY SYSTEM

None

SPECIAL SENSES SYSTEM

None

Test Type: RACB

Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

F0 Female

| | | Treatment Groups (ppm) | | | |
|---------------------------|----------|------------------------|----------|-------|--|
| | 0 | 1000 | 5000 | 10000 | |
| JRINARY SYSTEM | | | | | |
| KIDNEY | (23) | (23) | (23) | (23) | |
| REDUCED IN SIZE; MODERATE | | | 1 (4.3%) | | |
| URETHRA | (23) | (23) | (23) | (23) | |
| MASS; FIRM | 1 (4.3%) | | | | |

Study Number: R10997 Test Type: RACB

Route: Dosing in Feed

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate

Species/Strain: Rat/Sprague-Dawley

CAS Number: 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

F1 Male: F1c NonParent Males

| | | Treatmen | t Groups (ppm) | |
|--|------|--------------|----------------|--------------|
| | 0 | 1000 | 5000 | 10000 |
| Disposition Summary | | | | |
| Animals Initially In Study | 45 | 31 | 39 | 40 |
| Censored | | | | |
| Early Deaths | | | | |
| Sacrificed, Moribund | | | | 1 |
| Survivors | | | | |
| Scheduled Sacrifice, Terminal | 45 | 31 | 39 | 39 |
| Number of Animals Examined | 45 | 31 | 39 | 40 |
| Total number litters | 17 | 13 | 17 | 16 |
| ALIMENTARY SYSTEM | | | | |
| INTESTINES | (45) | (31) | (39) | (40) |
| SUBSTANCE; RED | | | | 1 (2.5%) [1] |
| LIVER | (45) | (31) | (39) | (40) |
| CAUDATE LOBE; DEFORMITY; YELLOW; MARKED | | 1 (3.2%) [1] | | |
| CAUDATE LOBE; DEFORMITY; MODERATE | | | | 1 (2.5%) [1] |
| CAUDATE LOBE; DISCOLORATION; MOTTLED; ALL SEVERITIES | | | 1 (2.6%) [1] | 1 (2.5%) [1] |
| CAUDATE LOBE; DISCOLORATION; MOTTLED; MILD | | | | 1 (2.5%) [1] |
| CAUDATE LOBE; DISCOLORATION; MOTTLED; MODERATE | | | 1 (2.6%) [1] | |
| CAUDATE LOBE; REDUCED IN SIZE; MARKED | | | | 1 (2.5%) [1] |
| CAUDATE LOBE; TORSION | | | 1 (2.6%) [1] | |
| STOMACH | (45) | (31) | (39) | (40) |
| NO INGESTA | | | | 1 (2.5%) [1] |
| SUBSTANCE; RED | | | | 1 (2.5%) [1] |

None

Test Type: RACB

Route: Dosing in Feed

Species/Strain: Rat/Sprague-Dawley

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

F1 Male: F1c NonParent Males

| | | Treatment Groups (ppm) | | | |
|-------------------------|------|------------------------|--------------|-------|--|
| | 0 | 1000 | 5000 | 10000 | |
| ENDOCRINE SYSTEM | | | | | |
| ADRENAL GLAND | (45) | (31) | (39) | (40) | |
| ENLARGED; MODERATE | | | 1 (2.6%) [1] | | |
| REDUCED IN SIZE; MARKED | | 1 (3.2%) [1] | | | |

GENERAL BODY SYSTEM

None

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Species/Strain: Rat/Sprague-Dawley

Study Number: R10997

Route: Dosing in Feed

Test Type: RACB

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Lab: RTI

| | Treatment Groups (ppm) | | | |
|--|------------------------|------|---------------|-----------------|
| | 0 | 1000 | 5000 | 10000 |
| GENITAL SYSTEM | | | | |
| COWPERS GLAND (BILATERAL) | (45) | (31) | (39) | (40) |
| REDUCED IN SIZE | | | 3 (7.7%) [2] | 1 (2.5%) [1] |
| COWPERS GLAND (UNILATERAL OR BILATERAL) | (45) | (31) | (39) | (40) |
| REDUCED IN SIZE | | | 3 (7.7%) [2] | 1 (2.5%) [1] |
| COWPERS GLAND, EPIDIDYMIS, LABC MUSCLE, PROSTATE, SEMINAL VESICLE, OR TESTIS | (45) | (31) | (39) | (40) |
| REDUCED IN SIZE, MALPOSITIONED, UNDESCENDED, OR MISSING | 1 (2.2%) [1] ** | | 6 (15.4%) [4] | 9 (22.5%) [8] * |
| DORSAL PROSTATE | (45) | (31) | (39) | (40) |
| MISSING | | | | 1 (2.5%) [1] |
| REDUCED IN SIZE; ALL SEVERITIES | | | 2 (5.1%) [2] | 1 (2.5%) [1] |
| REDUCED IN SIZE; MARKED | | | | 1 (2.5%) [1] |
| REDUCED IN SIZE; MINIMAL | | | 1 (2.6%) [1] | |
| REDUCED IN SIZE; MODERATE | | | 1 (2.6%) [1] | |
| EPIDIDYMIS | (45) | (31) | (39) | (40) |
| CAUDA; DISCOLORATION; YELLOW; MILD | | | 1 (2.6%) [1] | |
| CAUDA; NODULE | | | 1 (2.6%) [1] | |
| EPIDIDYMIS (BILATERAL) | (45) | (31) | (39) | (40) |
| REDUCED IN SIZE | | | | 1 (2.5%) [1] |
| EPIDIDYMIS (UNILATERAL OR BILATERAL) | (45) | (31) | (39) | (40) |
| REDUCED IN SIZE | 1 (2.2%) [1] | | 1 (2.6%) [1] | 4 (10.0%) [3] |
| EPIDIDYMIS (UNILATERAL) | (45) | (31) | (39) | (40) |
| REDUCED IN SIZE | 1 (2.2%) [1] | | 1 (2.6%) [1] | 3 (7.5%) [3] |
| LEVATOR ANI PLUS BULBOCAVERNOSUS MUSCLE | (45) | (31) | (39) | (40) |
| REDUCED IN SIZE; ALL SEVERITIES | | | 2 (5.1%) [1] | 2 (5.0%) [1] |
| REDUCED IN SIZE; MILD | | | | 1 (2.5%) [1] |
| REDUCED IN SIZE; MODERATE | | | 2 (5.1%) [1] | 1 (2.5%) [1] |
| PENIS | (45) | (31) | (39) | (40) |
| FRENULUM PRESENT | | | | 1 (2.5%) [1] |

Test Type: RACB

Route: Dosing in Feed

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Species/Strain: Rat/Sprague-Dawley

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Lab: RTI

| | Treatment Groups (ppm) | | | |
|---|------------------------|------|--------------------------------------|---------------------------------------|
| | 0 | 1000 | 5000 | 10000 |
| PREPUTIAL GLAND DISCOLORATION; BROWN; MODERATE ENLARGED; MILD | (45) | (31) | (39) 1 (2.6%) [1] 1 (2.6%) [1] | (40) 1 (2.5%) [1] |
| PREPUTIAL GLAND (UNILATERAL OR BILATERAL) REDUCED IN SIZE | (45) | (31) | (39) 1 (2.6%) [1] | (40) |
| PREPUTIAL GLAND (UNILATERAL) REDUCED IN SIZE | (45) | (31) | (39) 1 (2.6%) [1] | (40) |
| SEMINAL VESICLE ADHESION; MARKED DISCOLORATION; PINK; MODERATE | (45) | (31) | (39) 1 (2.6%) [1] | (40) 1 (2.5%) [1] |
| SEMINAL VESICLE (UNILATERAL OR BILATERAL) REDUCED IN SIZE | (45) | (31) | (39) 2 (5.1%) [2] | (40) 1 (2.5%) [1] |
| SEMINAL VESICLE (UNILATERAL) REDUCED IN SIZE | (45) | (31) | (39) 2 (5.1%) [2] | (40) 1 (2.5%) [1] |
| TESTIS (BILATERAL) REDUCED IN SIZE | (45) | (31) | (39) | (40) 1 (2.5%) [1] |
| TESTIS (UNILATERAL OR BILATERAL) MALPOSITIONED MALPOSITIONED OR UNDESCENDED | (45) | (31) | (39) | (40) 1 (2.5%) [1] 2 (5.0%) [1] |
| REDUCED IN SIZE UNDESCENDED | 1 (2.2%) [1] | | 1 (2.6%) [1] | 4 (10.0%) [3] 2 (5.0%) [1] |
| TESTIS (UNILATERAL) MALPOSITIONED | (45) | (31) | (39) | (40) 1 (2.5%) [1] |
| REDUCED IN SIZE UNDESCENDED | 1 (2.2%) [1] | | 1 (2.6%) [1] | 3 (7.5%) [3] 2 (5.0%) [1] |
| VENTRAL PROSTATE REDUCED IN SIZE; ALL SEVERITIES REDUCED IN SIZE; MILD | (45) 0 * | (31) | (39) 2 (5.1%) [2] | (40) 4 (10.0%) [3] 1 (2.5%) [1] |

Route: Dosing in Feed

Test Type: RACB

Species/Strain: Rat/Sprague-Dawley

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

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Lab: RTI

| | Treatment Groups (ppm) | | | |
|----------------------------------|------------------------|--------------|--------------|--------------|
| | 0 | 1000 | 5000 | 10000 |
| REDUCED IN SIZE; MODERATE | | | 2 (5.1%) [2] | 3 (7.5%) [3] |
| HEMATOLYMPHOID SYSTEM | | | | |
| SPLEEN | (45) | (31) | (39) | (40) |
| ENLARGED; MILD | | | 1 (2.6%) [1] | |
| INTEGUMENTARY SYSTEM | | | | |
| DIGIT | (45) | (31) | (39) | (40) |
| HINDFOOT; SHORT; THIRD | | | | 1 (2.5%) [1] |
| MUSCULOSKELETAL SYSTEM | | | | |
| PAW | (45) | (31) | (39) | (40) |
| HINDFOOT; DEFORMITY; MODERATE | | | | 1 (2.5%) [1] |
| NERVOUS SYSTEM | | | | |
| None | | | | |
| RESPIRATORY SYSTEM | | | | |
| None | | | | |
| SPECIAL SENSES SYSTEM | | | | |
| EYE | (45) | (31) | (39) | (40) |
| DISCHARGE; BROWN; ALL SEVERITIES | | 1 (3.2%) [1] | | 1 (2.5%) [1] |
| DISCHARGE; BROWN; MINIMAL | | 1 (3.2%) [1] | | |
| DISCHARGE; BROWN; MODERATE | | | | 1 (2.5%) [1] |

Route: Dosing in Feed

Test Type: RACB

Species/Strain: Rat/Sprague-Dawley

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Lab: RTI

Date Report Requested: 03/18/2021

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| | | Treatment Groups (ppm) | | | |
|--------------------------|--------------|------------------------|--------------|--------------|--|
| | 0 | 1000 | 5000 | 10000 | |
| URINARY SYSTEM | | | | | |
| KIDNEY | (45) | (31) | (39) | (40) | |
| PELVIS; DILATION; MILD | 1 (2.2%) [1] | | | 1 (2.5%) [1] | |
| DILATION; ALL SEVERITIES | 2 (4.4%) [1] | 3 (9.7%) [3] | 3 (7.7%) [3] | | |
| DILATION; MINIMAL | 2 (4.4%) [1] | 2 (6.5%) [2] | | | |
| DILATION; MODERATE | | 1 (3.2%) [1] | 3 (7.7%) [3] | | |
| ENLARGED; MILD | | | 1 (2.6%) [1] | | |

Route: Dosing in Feed

Test Type: RACB

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate

Species/Strain: Rat/Sprague-Dawley

CAS Number: 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

F1 Female: F1c NonParent Female

| | | Treatment Groups (ppm) | | | | |
|--------------------------------|--------------|------------------------|--------------|-------|--|--|
| | 0 | 1000 | 5000 | 10000 | | |
| Disposition Summary | | | | | | |
| Animals Initially In Study | 28 | 32 | 40 | 32 | | |
| Censored | | | | | | |
| Early Deaths | | | | | | |
| Survivors | | | | | | |
| Scheduled Sacrifice, Terminal | 28 | 32 | 40 | 32 | | |
| Number of Animals Examined | 28 | 32 | 40 | 32 | | |
| Total number litters | 15 | 12 | 17 | 13 | | |
| ALIMENTARY SYSTEM | | | | | | |
| LIVER | (28) | (32) | (40) | (32) | | |
| MEDIAN LOBE; NODULE | | | 1 (2.5%) [1] | | | |
| MESENTERY | (28) | (32) | (40) | (32) | | |
| ADIPOSE; NODULE | | 1 (3.1%) [1] | | | | |
| CARDIOVASCULAR SYSTEM | | | | | | |
| None | | | | | | |
| ENDOCRINE SYSTEM | | | | | | |
| ADRENAL GLAND | (28) | (32) | (40) | (32) | | |
| DISCOLORATION; BROWN; MODERATE | | | 1 (2.5%) [1] | | | |
| GENERAL BODY SYSTEM | | | | | | |
| None | | | | | | |
| GENITAL SYSTEM | | | | | | |
| UTERUS | (28) | (32) | (40) | (32) | | |
| NODULE; FIRM | 1 (3.6%) [1] | 1 (3.1%) [1] | | | | |

Route: Dosing in Feed

Test Type: RACB

Species/Strain: Rat/Sprague-Dawley

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

F1 Female: F1c NonParent Female

| 5000 | 10000 | | |
|-------------------------------------|----------------------|--|--|
| | | | |
| | | | |
| (40) | (32) | | |
| 1 (2.5%) [1] | | | |
| | | | |
| (40) | (32) | | |
| | 1 (3.1%) [1] | | |
| | | | |
| (40) | (32) | | |
| (28) (32) (40) (32) 2 (6.3%) [1] | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| (40) | (32) | | |
| | | | |
| | | | |
| (40) | (32) | | |
| | (02) | | |
| . (2.070)[1] | | | |
| - | (40) 1 (2.5%) [1] | | |

None

Test Type: RACB

Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

| | | Treatment Groups (ppm) | | | | |
|--------------------------------|------|------------------------|------|--------------|--|--|
| | 0 | 1000 | 5000 | 10000 | | |
| Disposition Summary | | | | | | |
| Animals Initially In Study | 40 | 40 | 40 | 40 | | |
| Censored | | | | | | |
| Early Deaths | | | | | | |
| Survivors | | | | | | |
| Scheduled Sacrifice, Terminal | 40 | 40 | 37 | 40 | | |
| Number of Animals Examined | 40 | 40 | 40 | 40 | | |
| Total number litters | 21 | 20 | 19 | 18 | | |
| ALIMENTARY SYSTEM | | | | | | |
| LIVER | (40) | (40) | (40) | (40) | | |
| DISCOLORATION; BROWN; MODERATE | | | | 1 (2.5%) [1] | | |
| CARDIOVASCULAR SYSTEM | | | | | | |
| None | | | | | | |
| ENDOCRINE SYSTEM | | | | | | |
| None | | | | | | |

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Species/Strain: Rat/Sprague-Dawley

Study Number: R10997

Route: Dosing in Feed

Test Type: RACB

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

| | Treatment Groups (ppm) | | | |
|--|------------------------|--------------|---------------|-------------------|
| | 0 | 1000 | 5000 | 10000 |
| GENITAL SYSTEM | | | | |
| COWPERS GLAND (BILATERAL) | (40) | (40) | (40) | (40) |
| REDUCED IN SIZE | | | | 1 (2.5%) [1] |
| COWPERS GLAND (UNILATERAL OR BILATERAL) | (40) | (40) | (40) | (40) |
| MISSING | | 1 (2.5%) [1] | 1 (2.5%) [1] | 3 (7.5%) [3] |
| REDUCED IN SIZE | | | | 2 (5.0%) [2] |
| COWPERS GLAND (UNILATERAL) | (40) | (40) | (40) | (40) |
| MISSING | | 1 (2.5%) [1] | 1 (2.5%) [1] | 3 (7.5%) [3] |
| REDUCED IN SIZE | | | | 1 (2.5%) [1] |
| COWPERS GLAND, EPIDIDYMIS, LABC MUSCLE, PROSTATE, SEMINAL VESICLE, OR TESTIS | (40) | (40) | (40) | (40) |
| REDUCED IN SIZE, MALPOSITIONED, UNDESCENDED, OR MISSING | 0 ** | 2 (5.0%) [2] | 4 (10.0%) [4] | 11 (27.5%) [8] ** |
| EPIDIDYMIS | (40) | (40) | (40) | (40) |
| DEFORMITY; MODERATE | | | | 1 (2.5%) [1] |
| EPIDIDYMIS (BILATERAL) | (40) | (40) | (40) | (40) |
| REDUCED IN SIZE | 0 * | | 1 (2.5%) [1] | 3 (7.5%) [3] |
| EPIDIDYMIS (UNILATERAL OR BILATERAL) | (40) | (40) | (40) | (40) |
| MISSING | | 1 (2.5%) [1] | | |
| REDUCED IN SIZE | 0 ** | | 3 (7.5%) [3] | 9 (22.5%) [7] * |
| EPIDIDYMIS (UNILATERAL) | (40) | (40) | (40) | (40) |
| MISSING | | 1 (2.5%) [1] | | |
| REDUCED IN SIZE | 0 ** | | 2 (5.0%) [2] | 6 (15.0%) [5] |
| PREPUTIAL GLAND | (40) | (40) | (40) | (40) |
| DISCHARGE; GREEN; MARKED | | | | 1 (2.5%) [1] |
| DISCOLORATION; BROWN; MODERATE | | | | 3 (7.5%) [3] |
| DISCOLORATION; GREEN; ALL SEVERITIES | 0 * | | | 4 (10.0%) [3] |
| DISCOLORATION; GREEN; MILD | | | | 1 (2.5%) [1] |
| DISCOLORATION; GREEN; MINIMAL | | | | 1 (2.5%) [1] |
| DISCOLORATION; GREEN; MODERATE | | | | 2 (5.0%) [2] |

Study Number: R10997 Test Type: RACB PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Route: Dosing in Feed
Species/Strain: Rat/Sprague-Dawley

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

| | Treatment Groups (ppm) | | | |
|---|------------------------|--------------|--------------|-----------------|
| | 0 | 1000 | 5000 | 10000 |
| ENLARGED; BROWN; MARKED | | | | 1 (2.5%) [1] |
| ENLARGED; GREEN; MILD | | | | 1 (2.5%) [1] |
| ENLARGED; ALL SEVERITIES | | | 1 (2.5%) [1] | 2 (5.0%) [2] |
| ENLARGED; MILD | | | 1 (2.5%) [1] | |
| ENLARGED; MODERATE | | | | 2 (5.0%) [2] |
| NODULE; GREEN | | | 1 (2.5%) [1] | |
| NODULE; YELLOW | | | 1 (2.5%) [1] | |
| NODULE | | 1 (2.5%) [1] | | 1 (2.5%) [1] |
| PREPUTIAL GLAND (UNILATERAL OR BILATERAL) | (40) | (40) | (40) | (40) |
| REDUCED IN SIZE | | 1 (2.5%) [1] | | |
| PREPUTIAL GLAND (UNILATERAL) | (40) | (40) | (40) | (40) |
| REDUCED IN SIZE | | 1 (2.5%) [1] | | |
| SEMINAL VESICLE (BILATERAL) | (40) | (40) | (40) | (40) |
| REDUCED IN SIZE | | | | 1 (2.5%) [1] |
| SEMINAL VESICLE (UNILATERAL OR BILATERAL) | (40) | (40) | (40) | (40) |
| REDUCED IN SIZE | | | | 1 (2.5%) [1] |
| TESTIS (BILATERAL) | (40) | (40) | (40) | (40) |
| MALPOSITIONED | | | | 1 (2.5%) [1] |
| REDUCED IN SIZE | 0 * | | 1 (2.5%) [1] | 3 (7.5%) [3] |
| TESTIS (UNILATERAL OR BILATERAL) | (40) | (40) | (40) | (40) |
| MALPOSITIONED | | | | 3 (7.5%) [3] |
| MALPOSITIONED OR UNDESCENDED | | | | 3 (7.5%) [3] |
| MISSING | | 1 (2.5%) [1] | | 1 (2.5%) [1] |
| REDUCED IN SIZE | 0 ** | | 3 (7.5%) [3] | 9 (22.5%) [7] * |
| TESTIS (UNILATERAL) | (40) | (40) | (40) | (40) |
| MALPOSITIONED | | | | 2 (5.0%) [2] |
| MISSING | | 1 (2.5%) [1] | | 1 (2.5%) [1] |
| REDUCED IN SIZE | 0 ** | | 2 (5.0%) [2] | 6 (15.0%) [6] * |

Test Type: RACB

Route: Dosing in Feed

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate

CAS Number: 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

Species/Strain: Rat/Sprague-Dawley

| E 4 | Mala. | E10 | Parental | Malac |
|------------|-------|-----|-----------------|-------|
| F 1 | Male: | F1C | Parentai | waies |

| | | Treatment Groups (ppm) | | | | |
|---|------|--------------------------------------|------|--|--|--|
| | 0 | 1000 | 5000 | 10000 | | |
| VENTRAL PROSTATE REDUCED IN SIZE; MARKED | (40) | (40) | (40) | (40) 1 (2.5%) [1] | | |
| HEMATOLYMPHOID SYSTEM LYMPH NODE SUBMANDIBULAR; DISCOLORATION; BROWN; MODERATE | (40) | (40) | (40) | (40) 1 (2.5%) [1] | | |
| INTEGUMENTARY SYSTEM SKIN INGUINAL; DISCOLORATION; BROWN; MARKED | (40) | (40) | (40) | (40) 1 (2.5%) [1] | | |
| MUSCULOSKELETAL SYSTEM None | | | | | | |
| NERVOUS SYSTEM None | | | | | | |
| RESPIRATORY SYSTEM None | | | | | | |
| SPECIAL SENSES SYSTEM None | | | | | | |
| URINARY SYSTEM KIDNEY PELVIS; DILATION; ALL SEVERITIES PELVIS; DILATION; MILD PELVIS; DILATION; MINIMAL PELVIS; DILATION; MODERATE | (40) | (40) 1 (2.5%) [1] 1 (2.5%) [1] | (40) | (40) 3 (7.5%) [3] 1 (2.5%) [1] 1 (2.5%) [1] 1 (2.5%) [1] | | |

Study Number: R10997 Test Type: RACB

Route: Dosing in Feed

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate

CAS Number: 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

Species/Strain: Rat/Sprague-Dawley

F1 Female: F1c Parental Females

| | | Treatment Groups (ppm) | | | | |
|--|------|------------------------|--------------|--------------|--|--|
| | 0 | 1000 | 5000 | 10000 | | |
| Disposition Summary | | | | | | |
| Animals Initially In Study | 40 | 40 | 40 | 40 | | |
| Censored | | | | | | |
| Early Deaths | | | | | | |
| Found Dead | 1 | | 1 | | | |
| Sacrificed, Moribund | 1 | | 4 | | | |
| Survivors | | | | | | |
| Scheduled Sacrifice, Terminal | 38 | 40 | 35 | 40 | | |
| Number of Animals Examined | 40 | 40 | 40 | 40 | | |
| Total number litters | 20 | 19 | 20 | 18 | | |
| ALIMENTARY SYSTEM | | | | | | |
| LIVER | (40) | (40) | (40) | (40) | | |
| MEDIAL LOBE; DEFORMITY; MILD | | 1 (2.5%) [1] | | | | |
| CAUDATE LOBE; DISCOLORATION; RED; MODERATE | | 1 (2.5%) [1] | | | | |
| DISCOLORATION; BROWN; MINIMAL | | | | 1 (2.5%) [1] | | |
| MESENTERY | (40) | (40) | (40) | (40) | | |
| NODULE | | | 1 (2.5%) [1] | | | |
| CARDIOVASCULAR SYSTEM | | | | | | |
| HEART | (40) | (40) | (40) | (40) | | |
| MISSHAPEN | | | 1 (2.5%) [1] | | | |
| ENDOCRINE SYSTEM | | | | | | |
| ADRENAL GLAND | (40) | (40) | (40) | (40) | | |
| ENLARGED; MILD | | | 1 (2.5%) [1] | | | |

Test Type: RACB

Route: Dosing in Feed

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate

Species/Strain: Rat/Sprague-Dawley

CAS Number: 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

F1 Female: F1c Parental Females

| | | Treatment Groups (ppm) | | | | |
|---------------------------------|--------------|------------------------|--------------|--------------|--|--|
| | 0 | 1000 | 5000 | 10000 | | |
| GENERAL BODY SYSTEM | | | | | | |
| CAVITY, ABDOMINAL | (40) | (40) | (40) | (40) | | |
| FLUID | | | 1 (2.5%) [1] | | | |
| FAT | (40) | (40) | (40) | (40) | | |
| MESENTERY; DISCOLORATION; MILD | | 1 (2.5%) [1] | | | | |
| GENITAL SYSTEM | | | | | | |
| CLITORAL GLAND | (40) | (40) | (40) | (40) | | |
| DISCOLORATION; GREEN; MILD | 1 (2.5%) [1] | 1 (2.5%) [1] | 1 (2.5%) [1] | | | |
| ENLARGED; MILD | 1 (2.5%) [1] | 1 (2.5%) [1] | 1 (2.5%) [1] | | | |
| OVARY | (40) | (40) | (40) | (40) | | |
| DISCOLORATION; PALE; MODERATE | | | 1 (2.5%) [1] | | | |
| REDUCED IN SIZE; ALL SEVERITIES | 2 (5.0%) [2] | | | 1 (2.5%) [1] | | |
| REDUCED IN SIZE; MILD | 2 (5.0%) [2] | | | | | |
| REDUCED IN SIZE; MODERATE | | | | 1 (2.5%) [1] | | |
| UTERUS | (40) | (40) | (40) | (40) | | |
| CYST; CLEAR | | 1 (2.5%) [1] | | | | |
| ENLARGED; MARKED | | | 1 (2.5%) [1] | | | |

Study Number: R10997 Test Type: RACB

Route: Dosing in Feed

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Species/Strain: Rat/Sprague-Dawley

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

F1 Female: F1c Parental Females

| | Treatment Groups (ppm) | | | | |
|--------------------------|------------------------|--------------|--------------|--------------|--|
| | 0 | 1000 | 5000 | 10000 | |
| HEMATOLYMPHOID SYSTEM | | | | | |
| LYMPH NODE, AXILLARY | (40) | (40) | (40) | (40) | |
| ENLARGED; PALE; MODERATE | | | 1 (2.5%) [1] | | |
| ENLARGED; MILD | 1 (2.5%) [1] | | | | |
| LYMPH NODE, INGUINAL | (40) | (40) | (40) | (40) | |
| ENLARGED; PALE; MODERATE | | | 1 (2.5%) [1] | | |
| LYMPH NODE, MANDIBULAR | (40) | (40) | (40) | (40) | |
| ENLARGED; PALE; MODERATE | | | 1 (2.5%) [1] | | |
| SPLEEN | (40) | (40) | (40) | (40) | |
| ENLARGED; ALL SEVERITIES | 1 (2.5%) [1] | | 1 (2.5%) [1] | | |
| ENLARGED; MILD | 1 (2.5%) [1] | | | | |
| ENLARGED; MODERATE | | | 1 (2.5%) [1] | | |
| THYMUS | (40) | (40) | (40) | (40) | |
| ENLARGED; MILD | | | 1 (2.5%) [1] | | |
| INTEGUMENTARY SYSTEM | | | | | |
| MAMMARY GLAND | (40) | (40) | (40) | (40) | |
| AXILLARY; ENLARGED; MILD | | 1 (2.5%) [1] | | | |
| CERVICAL; ENLARGED; MILD | 1 (2.5%) [1] | | | | |
| AXILLARY; MASS; FIRM | | 1 (2.5%) [1] | 2 (5.0%) [2] | 1 (2.5%) [1] | |
| SKIN | (40) | (40) | (40) | (40) | |
| FORELIMB; ALOPECIA; MILD | | 1 (2.5%) [1] | | | |
| AXILLARY; ULCER; MARKED | 1 (2.5%) [1] | • | | | |
| SKIN, ABDOMINAL | (40) | (40) | (40) | (40) | |
| MASS; FIRM | | | 1 (2.5%) [1] | | |

Test Type: RACB

Route: Dosing in Feed Species/Strain: Rat/Sprague-Dawley

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Time Report Requested: 14:18:36

Date Report Requested: 03/18/2021

Lab: RTI

| F1 Female: F1c Parental Fen | nales |
|-----------------------------|-------|
|-----------------------------|-------|

| | Treatment Groups (ppm) | | | | |
|---------------------------|------------------------|------|--------------|--------------|--|
| | 0 | 1000 | 5000 | 10000 | |
| MUSCULOSKELETAL SYSTEM | | | | | |
| DIAPHRAGM | (40) | (40) | (40) | (40) | |
| MEDIAL LOBE; HERNIA; MILD | | | 1 (2.5%) [1] | , , | |
| PAW | (40) | (40) | (40) | (40) | |
| FOREFOOT; DEFORMITY; MILD | 1 (2.5%) [1] | | | | |
| HINDFOOT; DEFORMITY; MILD | 2 (5.0%) [2] | | | 1 (2.5%) [1] | |
| NERVOUS SYSTEM | | | | | |
| None | | | | | |
| RESPIRATORY SYSTEM | | | | | |
| None | | | | | |
| SPECIAL SENSES SYSTEM | | | | | |
| None | | | | | |
| JRINARY SYSTEM | | | | | |
| KIDNEY | (40) | (40) | (40) | (40) | |
| DILATION; MILD | | | 1 (2.5%) [1] | | |
| MASS; PALE | | | | 1 (2.5%) [1] | |

PA46R: Summary of Gross Pathology with Litter Incidence
Test Compound: Diisobutyl Phthalate

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Test Type: RACB
Route: Dosing in Feed

CAS Number: 84-69-5

Lab: RTI

Species/Strain: Rat/Sprague-Dawley

F1 Male: F1c P+NP Males

| | | Treatment Groups (ppm) | | | |
|-------------------------------|----|------------------------|------|-------|--|
| | 0 | 1000 | 5000 | 10000 | |
| Disposition Summary | | | | | |
| Animals Initially In Study | 85 | 71 | 79 | 80 | |
| Censored | | | | | |
| Early Deaths | | | | | |
| Sacrificed, Moribund | | | | 1 | |
| Survivors | | | | | |
| Scheduled Sacrifice, Terminal | 85 | 71 | 76 | 79 | |
| Number of Animals Examined | 85 | 71 | 79 | 80 | |
| Total number litters | 21 | 20 | 19 | 19 | |
| ALIMENTARY SYSTEM | | | | | |
| None | | | | | |
| CARDIOVASCUI AR SYSTEM | | | | | |

CARDIOVASCULAR SYSTEM

None

ENDOCRINE SYSTEM

None

GENERAL BODY SYSTEM

None

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

Species/Strain: Rat/Sprague-Dawley

Study Number: R10997

Route: Dosing in Feed

Test Type: RACB

F1 Male: F1c P+NP Males

| | Treatment Groups (ppm) | | | |
|--|------------------------|--------------|------------------|--------------------|
| | 0 | 1000 | 5000 | 10000 |
| GENITAL SYSTEM | | | | |
| COWPERS GLAND (BILATERAL) | (85) | (71) | (79) | (80) |
| REDUCED IN SIZE | | | 3 (3.8%) [2] | 2 (2.5%) [2] |
| COWPERS GLAND (UNILATERAL OR BILATERAL) | (85) | (71) | (79) | (80) |
| MISSING | | 1 (1.4%) [1] | 1 (1.3%) [1] | 3 (3.8%) [3] |
| REDUCED IN SIZE | | | 3 (3.8%) [2] | 3 (3.8%) [3] |
| COWPERS GLAND (UNILATERAL) | (85) | (71) | (79) | (80) |
| MISSING | | 1 (1.4%) [1] | 1 (1.3%) [1] | 3 (3.8%) [3] |
| REDUCED IN SIZE | | | | 1 (1.3%) [1] |
| COWPERS GLAND, EPIDIDYMIS, LABC MUSCLE, PROSTATE, SEMINAL VESICLE, OR TESTIS | (85) | (71) | (79) | (80) |
| REDUCED IN SIZE, MALPOSITIONED, UNDESCENDED, OR MISSING | 1 (1.2%) [1] ** | 2 (2.8%) [2] | 10 (12.7%) [7] * | 20 (25.0%) [11] ** |
| DORSAL PROSTATE | (85) | (71) | (79) | (80) |
| MISSING | | | | 1 (1.3%) [1] |
| REDUCED IN SIZE | | | 2 (2.5%) [2] | 1 (1.3%) [1] |
| EPIDIDYMIS (BILATERAL) | (85) | (71) | (79) | (80) |
| REDUCED IN SIZE | 0 * | | 1 (1.3%) [1] | 4 (5.0%) [4] |
| EPIDIDYMIS (UNILATERAL OR BILATERAL) | (85) | (71) | (79) | (80) |
| MISSING | | 1 (1.4%) [1] | | |
| REDUCED IN SIZE | 1 (1.2%) [1] ** | | 4 (5.1%) [4] | 13 (16.3%) [8] * |
| EPIDIDYMIS (UNILATERAL) | (85) | (71) | (79) | (80) |
| MISSING | | 1 (1.4%) [1] | | |
| REDUCED IN SIZE | 1 (1.2%) [1] ** | | 3 (3.8%) [3] | 9 (11.3%) [6] * |
| LEVATOR ANI PLUS BULBOCAVERNOSUS MUSCLE | (85) | (71) | (79) | (80) |
| REDUCED IN SIZE | | | 2 (2.5%) [1] | 2 (2.5%) [1] |
| PREPUTIAL GLAND (UNILATERAL OR BILATERAL) | (85) | (71) | (79) | (80) |
| REDUCED IN SIZE | | 1 (1.4%) [1] | 1 (1.3%) [1] | |
| PREPUTIAL GLAND (UNILATERAL) | (85) | (71) | (79) | (80) |
| REDUCED IN SIZE | | 1 (1.4%) [1] | 1 (1.3%) [1] | • • |

Study Number: R10997 Test Type: RACB

Route: Dosing in Feed

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Lab: RTI

Date Report Requested: 03/18/2021

Time Report Requested: 14:18:36

Species/Strain: Rat/Sprague-Dawley

F1 Male: F1c P+NP Males

| | | Treatment Groups (ppm) | | |
|---|-----------------|------------------------|--------------|------------------|
| | 0 | 1000 | 5000 | 10000 |
| SEMINAL VESICLE (BILATERAL) | (85) | (71) | (79) | (80) |
| REDUCED IN SIZE | | | | 1 (1.3%) [1] |
| SEMINAL VESICLE (UNILATERAL OR BILATERAL) | (85) | (71) | (79) | (80) |
| REDUCED IN SIZE | | | 2 (2.5%) [2] | 2 (2.5%) [2] |
| SEMINAL VESICLE (UNILATERAL) | (85) | (71) | (79) | (80) |
| REDUCED IN SIZE | | | 2 (2.5%) [2] | 1 (1.3%) [1] |
| TESTIS (BILATERAL) | (85) | (71) | (79) | (80) |
| MALPOSITIONED | | | | 1 (1.3%) [1] |
| REDUCED IN SIZE | 0 * | | 1 (1.3%) [1] | 4 (5.0%) [3] |
| TESTIS (UNILATERAL OR BILATERAL) | (85) | (71) | (79) | (80) |
| MALPOSITIONED | | | | 4 (5.0%) [3] |
| MALPOSITIONED OR UNDESCENDED | | | | 5 (6.3%) [3] |
| MISSING | | 1 (1.4%) [1] | | 1 (1.3%) [1] |
| REDUCED IN SIZE | 1 (1.2%) [1] ** | | 4 (5.1%) [4] | 13 (16.3%) [8] * |
| UNDESCENDED | | | | 2 (2.5%) [1] |
| TESTIS (UNILATERAL) | (85) | (71) | (79) | (80) |
| MALPOSITIONED | | | | 3 (3.8%) [2] |
| MISSING | | 1 (1.4%) [1] | | 1 (1.3%) [1] |
| REDUCED IN SIZE | 1 (1.2%) [1] ** | | 3 (3.8%) [3] | 9 (11.3%) [7] * |
| UNDESCENDED | | | | 2 (2.5%) [1] |
| VENTRAL PROSTATE | (85) | (71) | (79) | (80) |
| REDUCED IN SIZE | 0 * | | 2 (2.5%) [2] | 5 (6.3%) [4] |

HEMATOLYMPHOID SYSTEM

None

INTEGUMENTARY SYSTEM

None

Test Type: RACB
Route: Dosing in Feed

None

Species/Strain: Rat/Sprague-Dawley

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

| F1 Male: F1c P+NP Males | | | |
|-------------------------|-------------|-------------|------------------------|
| | Treatment G | roups (ppm) | |
| 0 | 1000 | 5000 | 10000 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | Treatment G | Treatment Groups (ppm) |

Test Type: RACB

Route: Dosing in Feed Species/Strain: Rat/Sprague-Dawley

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

F1 Male: F1c Extra Males

| | | Treatment Groups (ppm) | | | |
|----------------------------|---|------------------------|------|--|--|
| | 0 | 1000 | 5000 | | |
| Disposition Summary | | | | | |
| Animals Initially In Study | 6 | 1 | 7 | | |
| Censored | | | | | |
| Early Deaths | | | | | |
| Survivors | | | | | |
| Number of Animals Examined | 2 | 1 | 2 | | |
| Total number litters | 2 | 1 | 1 | | |
| ALIMENTARY SYSTEM | | | | | |
| None | | | | | |
| CARDIOVASCULAR SYSTEM | | | | | |
| None | | | | | |
| ENDOCRINE SYSTEM | | | | | |
| None | | | | | |
| GENERAL BODY SYSTEM | | | | | |
| None | | | | | |

Test Type: RACB

Route: Dosing in Feed

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate

Species/Strain: Rat/Sprague-Dawley

CAS Number: 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

F1 Male: F1c Extra Males

| | Treatment Groups (ppm) | | |
|---------------------------------------|------------------------|------|---------------|
| | 0 | 1000 | 5000 |
| GENITAL SYSTEM | | | |
| EPIDIDYMIS (LEFT) | (2) | (1) | (2) |
| DEFORMITY; MARKED | 1 (50.0%) [1] | | |
| DISCOLORATION; YELLOW; MARKED | 1 (50.0%) [1] | | |
| SEM VES W COAG GLANDS (PAIRED, EMPTY) | (2) | (1) | (2) |
| REDUCED IN SIZE | | | 1 (50.0%) [1] |
| SEM VES W COAG GLANDS (PAIRED, FULL) | (2) | (1) | (2) |
| REDUCED IN SIZE | | | 1 (50.0%) [1] |
| TESTIS (LEFT) | (2) | (1) | (2) |
| DISCOLORATION; TAN; MARKED | 1 (50.0%) [1] | | |
| REDUCED IN SIZE; MARKED | 1 (50.0%) [1] | | |
| HEMATOLYMPHOID SYSTEM None | | | |
| INTEGUMENTARY SYSTEM None | | | |
| MUSCULOSKELETAL SYSTEM None | | | |
| NERVOUS SYSTEM None | | | |
| RESPIRATORY SYSTEM | | | |
| LUNGS | (2) | (1) | (2) |
| | · ' | ` ' | 1 (50.0%) [1] |

Test Type: RACB

Route: Dosing in Feed

Species/Strain: Rat/Sprague-Dawley

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

F1 Male: F1c Extra Males

| | | Treatment Groups (ppm) | | |
|-------------------------------|-----|------------------------|----------------------|--|
| | 0 | 1000 | 5000 | |
| URINARY SYSTEM | | | | |
| KIDNEY (RIGHT) DILATION; MILD | (2) | (1) | (2) 1 (50.0%) [1] | |

Test Type: RACB

Route: Dosing in Feed

Species/Strain: Rat/Sprague-Dawley

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

F1 Female: F1c Extra Females

| | | Treatment Groups (ppm) | | | |
|----------------------------|---|------------------------|------|-------|--|
| | 0 | 1000 | 5000 | 10000 | |
| Disposition Summary | | | | | |
| Animals Initially In Study | 1 | 4 | 4 | 2 | |
| Censored | | | | | |
| Early Deaths | | | | | |
| Survivors | | | | | |
| Number of Animals Examined | 1 | 2 | | 2 | |
| Total number litters | 1 | 2 | | 2 | |
| ALIMENTARY SYSTEM | | | | | |
| None | | | | | |
| CARDIOVASCULAR SYSTEM | | | | | |
| None | | | | | |
| ENDOCRINE SYSTEM | | | | | |
| None | | | | | |
| GENERAL BODY SYSTEM | | | | | |
| None | | | | | |
| GENITAL SYSTEM | | | | | |
| None | | | | | |
| HEMATOLYMPHOID SYSTEM | | | | | |
| None | | | _ | | |
| INTEGUMENTARY SYSTEM | | | | | |
| None | | | | | |
| MUSCULOSKELETAL SYSTEM | | | | | |
| None | | | | | |

Study Number: R10997 Test Type: RACB

Route: Dosing in Feed

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

Species/Strain: Rat/Sprague-Dawley

| F1 | Fema | le: F | 1c | Extra | Femal | es |
|----|------|-------|----|-------|-------|----|
| | | | | | | |

| F1 F | emale: F1c Extra Female | es | | | | | | | |
|------|-------------------------|------|------|-------|--|--|--|--|--|
| | Treatment Groups (ppm) | | | | | | | | |
| | 0 | 1000 | 5000 | 10000 | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

SPECIAL SENSES SYSTEM

RESPIRATORY SYSTEM

None

None

None

URINARY SYSTEM

NERVOUS SYSTEM

None

Route: Dosing in Feed

Test Type: RACB

Species/Strain: Rat/Sprague-Dawley

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

| | | Treatment Groups (ppm) | | | |
|-------------------------------|--------------|------------------------|-------|-------|--|
| | 0 | 1000 | 5000 | 10000 | |
| Disposition Summary | | | | - | |
| Animals Initially In Study | 160 | 161 | 135 | 122 | |
| Censored | | | | | |
| Early Deaths | | | | | |
| Survivors | | | | | |
| Scheduled Sacrifice, Terminal | 160 | 161 | 135 | 122 | |
| Number of Animals Examined | 160 | 161 | 135 | 122 | |
| Total number litters | 31 | 35 | 27 | 33 | |
| ALIMENTARY SYSTEM | | | | | |
| None | | | | | |
| CARDIOVASCULAR SYSTEM | | | | | |
| None | | | | | |
| ENDOCRINE SYSTEM | | · | | | |
| None | | | | | |
| GENERAL BODY SYSTEM | | | | | |
| FAT | (160) | (161) | (135) | (122) | |
| DISCOLORATION; MILD | 1 (0.6%) [1] | | | | |

Test Type: RACB **Route:** Dosing in Feed

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate

Species/Strain: Rat/Sprague-Dawley

CAS Number: 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

F2 Male

| | Treatment Groups (ppm) | | | |
|--|------------------------|--------------|-----------------|--------------------|
| | 0 | 1000 | 5000 | 10000 |
| GENITAL SYSTEM | | | | |
| COWPERS GLAND, EPIDIDYMIS, LABC MUSCLE, PROSTATE, SEMINAL VESICLE, OR TESTIS | (160) | (161) | (135) | (122) |
| REDUCED IN SIZE, MALPOSITIONED, UNDESCENDED, OR MISSING | 1 (0.6%) [1] ** | 2 (1.2%) [2] | 10 (7.4%) [7] * | 18 (14.8%) [13] ** |
| TESTIS (BILATERAL) | (160) | (161) | (135) | (122) |
| REDUCED IN SIZE | | | 1 (0.7%) [1] | |
| UNDESCENDED | 0 * | | | 4 (3.3%) [3] |
| TESTIS (UNILATERAL OR BILATERAL) | (160) | (161) | (135) | (122) |
| MALPOSITIONED | | | 1 (0.7%) [1] | 2 (1.6%) [2] |
| MALPOSITIONED OR UNDESCENDED | 1 (0.6%) [1] ** | 2 (1.2%) [2] | 8 (5.9%) [5] | 17 (13.9%) [12] ** |
| MISSING | | 1 (0.6%) [1] | 2 (1.5%) [2] | |
| REDUCED IN SIZE | | | 2 (1.5%) [2] | 1 (0.8%) [1] |
| UNDESCENDED | 1 (0.6%) [1] ** | 2 (1.2%) [2] | 8 (5.9%) [5] | 16 (13.1%) [11] ** |
| TESTIS (UNILATERAL) | (160) | (161) | (135) | (122) |
| MALPOSITIONED | | | 1 (0.7%) [1] | 2 (1.6%) [2] |
| MISSING | | 1 (0.6%) [1] | 2 (1.5%) [2] | |
| REDUCED IN SIZE | | | 1 (0.7%) [1] | 1 (0.8%) [1] |
| UNDESCENDED | 1 (0.6%) [1] ** | 2 (1.2%) [2] | 8 (5.9%) [5] | 12 (9.8%) [10] ** |

HEMATOLYMPHOID SYSTEM

None

INTEGUMENTARY SYSTEM

None

MUSCULOSKELETAL SYSTEM

None

NERVOUS SYSTEM

None

Test Type: RACB

KIDNEY

Route: Dosing in Feed

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate

Species/Strain: Rat/Sprague-Dawley

PELVIS; DILATION; ALL SEVERITIES

PELVIS; DILATION; MILD

PELVIS; DILATION; MINIMAL

CAS Number: 84-69-5

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(122)

3 (2.5%) [3]

1 (0.8%) [1]

2 (1.6%) [2]

Lab: RTI

(135)

1 (0.7%) [1]

1 (0.7%) [1]

| F2 Male | | | | | |
|----------------------------|---|------------------------|------|-------|--|
| | | Treatment Groups (ppm) | | | |
| | 0 | 1000 | 5000 | 10000 | |
| RESPIRATORY SYSTEM None | | | | | |
| SPECIAL SENSES SYSTEM None | | | | | |
| URINARY SYSTEM | | | | | |

1 (0.6%) [1]

1 (0.6%) [1]

(161)

1 (0.6%) [1]

1 (0.6%) [1]

(160)

Route: Dosing in Feed

Test Type: RACB

Species/Strain: Rat/Sprague-Dawley

HEMATOLYMPHOID SYSTEM

INTEGUMENTARY SYSTEM

None

None

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

| F2 Female | | | | | |
|-------------------------------|-----|------------------------|------|-------|--|
| | | Treatment Groups (ppm) | | | |
| | 0 | 1000 | 5000 | 10000 | |
| Disposition Summary | | | | | |
| Animals Initially In Study | 146 | 178 | 137 | 155 | |
| Censored | | | | | |
| Early Deaths | | | | | |
| Survivors | | | | | |
| Scheduled Sacrifice, Terminal | 146 | 178 | 137 | 155 | |
| Number of Animals Examined | 146 | 178 | 137 | 155 | |
| Total number litters | 32 | 36 | 26 | 33 | |
| ALIMENTARY SYSTEM | | | | | |
| None | | | | | |
| CARDIOVASCULAR SYSTEM | | | | | |
| None | | | | | |
| ENDOCRINE SYSTEM | | | | | |
| None | | | | | |
| GENERAL BODY SYSTEM | | | | | |
| None | | | | | |
| GENITAL SYSTEM | | | | | |
| None | | | | | |

Test Type: RACB

Route: Dosing in Feed

Species/Strain: Rat/Sprague-Dawley

PELVIS; DILATION; MILD

PA46R: Summary of Gross Pathology with Litter Incidence

Test Compound: Diisobutyl Phthalate **CAS Number:** 84-69-5

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

| F2 Female | | | | | |
|---|-------|------------------------|-------|-----------------------|--|
| | | Treatment Groups (ppm) | | | |
| | 0 | 1000 | 5000 | 10000 | |
| MUSCULOSKELETAL SYSTEM PAW HINDFOOT; DEFORMITY; MINIMAL | (146) | (178) | (137) | (155) 1 (0.6%) [1] | |
| NERVOUS SYSTEM None | | | | | |
| RESPIRATORY SYSTEM None | | | | | |
| SPECIAL SENSES SYSTEM None | | | | | |
| URINARY SYSTEM KIDNEY | (146) | (178) | (137) | (155) | |

1 (0.6%) [1]

Study Number: R10997 PA46R: Summary of Gross Pathology with Litter Incidence
Test Type: RACB Test Compound: Diisobutyl Phthalate

Route: Dosing in Feed CAS Number: 84-69-5

Species/Strain: Rat/Sprague-Dawley

Date Report Requested: 03/18/2021 Time Report Requested: 14:18:36

Lab: RTI

LEGEND

Number of animals examined for each tissue shown in parentheses. If none of the animals examined have the specific lesion then there is a blank for that dose group for that specific lesion. The exception to this is if statistical significance is found for a lesion and the control group has no animals with the lesion then a 0 is included for the control group on the table for that lesion.

Number (percent) of animals affected given for each observation

Number of litters with observations shown in square brackets for F1 and F2 animals. F1 litter incidence based on the number of F0 dams; F2 litter incidence based on number of F1 dams.

All trend and pairwise p-values are reported as one-sided.

Non-pregnant females from the F0 and F1 generations are included in the analysis.

Statistical analysis for the F0 animals was performed by Cochran-Armitage (trend) and Fisher Exact (pairwise) tests.

Statistical analysis for all F1 and F2 cohorts was performed by Cochran-Armitage test with a Rao-Scott modification for the random effect due to litter.

If the same lesion is shown with multiple different severities, trend and pairwise statistical comparisons are performed only against the ALL SEVERITIES combination.

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 <= 0.05
- ** Statistically significant at P <= 0.01

The selection of F1c P+NP Males includes both the F1c Parental males and the F1c Nonparent males.

Animals that had both an undescended and malpositioned testis were only counted once in the "malpositioned or undescended" combination.

** FND OF REPORT **