1-Bromopropane: Introduction

- industrial solvent
- uses in spray adhesives and as degreaser
- proposed substitute for perchloroethylene in drycleaning.
- occupational inhalation and dermal exposures.
- possible environmental exposures through air emissions and consumer products
- may be used as a replacement for CFCs in refrigerators

1-Bromopropane

Study/Type	Species/ Number	Dosage/Duration	Effects Reported
Huntingdon Life Sciences, 2001 Developmental toxicity study	Rat n =25/group	0, 520, 2530, 5060 mg/m^3 [0, 103, 503, 1005 ppm] 6 hours/day days 6-19 gestation	Reduced fetal bodyweight. Increased bent/wavy ribs. Reduced skull ossification.

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Study/Type	Species/ Number	Dosage/Duration	Effects Reported
WIL Research Laboratories, 2001 Two-generation reproduction study	Rat n=25 males and females/ group	0, 100, 250, 500, 750 ppm [0, 503, 1257, 2514, 3771 mg/m^3] 6 hours/day, 7 days/week for at least 70 days prior to breeding (P1).	Reduced number of implantation sites. Reduced litter size. Increased estrous cycle length. Reduced fertility. Reduced ovary weights and numbers of corpora lutea. Increased follicular leutinized cysts. Reduced number of normal sperm, sperm motility and sperm count. Reduced cauda epididymis weight, prostate weights, pituitary weights and seminal vesicle weights.

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Study/Type	Species/ Number	Dosage/Duration	Effects Reported
Icihara et al., 2000	Rat n=8-9males/ group	0, 200, 400, 800 ppm [0, 1006, 2012, 4025 mg/m^3] 8 hours/day for 12 weeks	Reduced seminal vesicle, epididymides, pituitary and prostate weights. Histopathological changes in epididymides, prostate and seminal vesicles. Vacuolated seminiferous epithelium. Increased sperm with abnormal heads. Reduced plasma testosterone level.

1-Bromopropane : Animal Data Pertaining to DART Evaluation

- Developmental effects reportedly occurring in rats:
  - Reduced fetal bodyweight.
  - Increased bent/wavy ribs.
  - Reduced skull ossification.
  - Reduced number of implantation sites.
  - Reduced litter size.

1-Bromopropane : Animal Data Pertaining to DART Evaluation

- Female reproductive effects reportedly resulting in rats:
  - Increased estrous cycle length.
  - Reduced fertility.
  - Reduced ovary weights and numbers of corpora lutea.
  - Increased follicular leutinized cysts.

1-Bromopropane : Animal Data Pertaining to DART Evaluation

- Male reproductive effects reportedly resulting in rats:
  - Reduced number of normal sperm, sperm motility and sperm count.
  - Increased sperm with abnormal heads.
  - Reduced cauda epididymis weight, prostate weights, pituitary weights and seminal vesicle weights.
  - Histopathological changes in epididymides, prostate and seminal vesicles.
  - Vacuolated seminiferous epithelium.
  - Reduced plasma testosterone level.