

Article 19C.

DEHP Hazard Management.

§ 130A-453.40. Legislative finding.

The General Assembly finds all of the following:

- (1) DEHP and other ortho-phthalates are toxic chemicals used primarily to produce flexibility in plastics, mainly polyvinyl chloride (PVC).
- (2) DEHP is the most common plasticizer used in medical devices, including intravenous solution containers, which are also known as IV bags, and intravenous tubing.
- (3) Over the course of its shelf life, DEHP leaches from IV bags and tubing made from DEHP into the solutions being held in the medical devices.
- (4) DEHP is classified by the United States Environmental Protection Agency as an endocrine-disrupting compound since it can:
 - a. Interfere with the hormonal system in humans and animals.
 - b. Mimic or block the actions of hormones, leading to adverse effects on reproductive health, development, and metabolism.
- (5) DEHP exposure has been associated with adverse effects on reproductive organs and fertility. DEHP can also disrupt normal reproductive development, reduce sperm quality, and affect hormone levels in both males and females.
- (6) DEHP is metabolized in the liver and can accumulate in the body over time. Prolonged exposure to high levels of DEHP has been shown to cause liver and kidney damage in animal studies.
- (7) Inhalation or ingestion of DEHP can cause respiratory irritation and allergic reactions in some individuals, particularly those with preexisting respiratory conditions or sensitivities.
- (8) Studies have suggested a potential link between DEHP exposure and certain types of cancer, including breast, liver, lung, and testicular cancer.
- (9) The United States Environmental Protection Agency has determined that DEHP is a probable human carcinogen.
- (10) The leaching of DEHP from medical devices at varying concentrations has been linked to multidrug resistance in breast cancer cells, inhibiting the effectiveness of breast cancer drugs. This phenomenon has been observed at both high and low concentrations of DEHP, highlighting the potential impact of DEHP leaching on cancer treatment outcomes.
- (11) Exposure to DEHP has been linked to multidrug resistance in triple-negative breast cancer cells, inhibiting the apoptosis mechanism induced by breast cancer drugs, such as tamoxifen, and increasing cell proliferation.
- (12) DEHP has been suggested to serve as a mitogenic factor for estrogen receptor-positive breast cancer cells, potentially making them multidrug resistant. (2025-60, s. 3(a).)