VERMONT DEPARTMENT OF HEALTH

Perfluorohexane sulfonic acid (PFHxS)

C₆HF₁₃O₃S

Summary of Health Effects

PFHxS may harm development, hormones, or liver function based on animal studies.

How is PFHxS used?

PFHxS belongs to a class of chemicals called perfluoroalkyls which are often applied to consumer products as a water or stain protectant or surface coating. PFHxS was found in children's consumer products including infant sleeping bags, and outdoor clothing. 2

Toxicity: What are its health effects?

The Agency for Toxic Substances and Disease Registry Toxicological Profile for Perfluoroalkyls concluded that animal studies have shown that the liver is a sensitive target of PFHxS and that developmental effects include decreased pup body weight and survival, and changes in locomotor activity.¹

PFHxS altered neuroprotein³ and thyroid hormone levels⁴ and influenced memory⁵ and behavior⁶ in pups of mice fed PFHxS. Human and mouse cells

treated with PFHxS had changes in peroxisome proliferator-activated receptor alpha (PPARa) activity.⁷

Some studies in people show that certain perfluoroalkyl chemicals may affect growth, learning and behavior of infants and older children, lower a woman's chance of getting pregnant, interfere with the body's natural hormones, increase cholesterol levels, affect the immune system, and increase the risk of cancer.8

Exposure: How can a person come in contact with it?

A person may come into contact with PFHxS, from skin contact with consumer products that contain PFHxS, or by eating or drinking contaminated food or drinking water or by breathing contaminated air or dust.

Biomonitoring studies have detected PFHxS in human blood, 1,9,10,11 and breast milk. 1 PFHxS has also been found in indoor and outdoor air, dust, water, soil, and food and fish and wildlife. 1,12

References

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