Summary of Health Effects
Octamethylcyclotetrasiloxane (D4) can interfere with the body’s hormones. In animals, it can affect the reproductive system.

How is D4 used?
D4 is a high production volume chemical and is often used in personal care products and sunscreens.

Toxicity: What are its health effects?
D4 is classified as a category 1 endocrine disruptor by the European Commission. A 2018 study commissioned by the Danish EPA identified D4 as an endocrine disruptor. The Global Harmonized System Label Requirements classified D4 as suspected to produce reproductive toxicity. D4 was added to the Toxic Substances Control Act work plan due to reproductive toxicity, moderate environmental persistence, and high bioaccumulation potential.

Exposure: How can a person come in contact with it?
A person can come in contact with D4 from skin contact with consumer products, eating contaminated food, drinking contaminated water, or by breathing it in.

The Danish Environmental Protection Agency detected D4 in perfume, toys, and children’s cosmetics and articles. D4 has been detected in fish, sediment, indoor dust and air, outdoor air, and drinking and surface water. Biomonitoring studies have also detected D4 in the blood of Norwegian and German adults.

References


4. DHI Water and Environment (2006). *Study on enhancing the Endocrine Disruptor priority list with a focus on low production volume chemicals.* Retrieved from ec.europa.eu/environment/chemicals/endocrine/strategy/substances_en.htm#priority_list


This fact sheet is for the Chemical Disclosure Program for Children’s Products.