The Connection Between Tires, Fish, and Us

What's that chemical in your tires?

6PPD is a chemical used in tires to prevent cracking and blowouts. It has been used for decades and is found in tires worldwide. When 6PPD reacts with ozone, it transforms into 6PPD-quinone (often referred to as 6PPD-q).



As traffic passes on roads, tire wear particles containing 6PPD and 6PPDquinone are released into the environment.



6PPD and 6PPD-quinone then travel through air and stormwater runoff and enter rivers, creeks, and streams.

6PPD@ecv.wa.gov

What are we doing to address 6PPD?



1. Understand the problem We are developing scientific methods to measure 6PPDguinone in the environment and identifying affected areas.



2. Reduce sources of 6PPD We are searching for a safer alternative to use in tires and developing an action plan to guide our work.



3. Reduce stormwater pollution We are identifying and updating guidance on the best ways to capture and manage 6PPD-quinone before it reaches streams.





How does 6PPD-quinone impact fish, ecosystems, and humans?

6PPD-quinone is highly toxic to coho salmon and kills these fish before they can lay eggs. It is also toxic to juvenile coho. This threatens the survival of a species that's critical to the resiliency of ecosystems.

People value salmon as an important food source and connection to culture and tradition. Salmon are vital to Indigenous cultures and identities, food sovereignty, traditional knowledge, and way of life.

6PPD-quinone is harmful to other aquatic organisms, including rainbow trout and brook trout. Scientists are also conducting research to learn how 6PPD and 6PPD-quinone may impact human health.



Without proper stormwater infrastructure, salmon migrating during rainfall are exposed to 6PPD-quinone.



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