The U.S. Tire Manufacturers Association (USTMA) supports additional research on 6PPD-quinone and supports review of 6PPD under California's Green Chemistry Program

6PPD and 6PPD-quinone; two distinct materials

- 6PPD is used in all USTMA member company tires to resist degradation and cracking, which is vital for passenger safety.
- 6PPD-quinone is not used in tire manufacturing. 6PPD-quinone is a newly discovered transformation product of 6PPD and likely forms when 6PPD in tires reacts with oxygen and/or ozone.
- 6PPD in tire manufacturing has been studied, but not enough is yet known about 6PPD-quinone, including how 6PPD-quinone forms and how long it lasts in the environment.

Additional research is needed to understand 6PPD-quinone, a newly discovered transformation product of 6PPD used in tires

- Recent research published by Washington State researchers, suggests a connection between exposure to 6PPD-quinone and coho salmon mortality.[1]
- USTMA supports additional research on 6PPD-quinone to understand the mechanism of toxicity in coho salmon, and whether 6PPD-quinone has similar impacts on other salmon and fish species.
- To address knowledge gaps raised by the recent research, the global tire industry has formed a joint task force representing USTMA, the European Tyre and Rubber Manufacturers' Association (ETRMA) and the World Business Council for Sustainable Development's Tire Industry Project (TIP) to identify gaps in existing science and develop a plan to fill those gaps.
- USTMA is committed to collaborating with researchers at the University of Washington and other scientists to better understand this transformation product, fill knowledge gaps and determine next steps.

USTMA encourages review of 6PPD in tires under California's Green Chemistry Program

- The Safer Consumer Products Regulations, also known as California's Green Chemistry Program, identifies specific products that contain potentially harmful chemicals and asks manufacturers to answer two questions: 1) Is this chemical necessary? 2) Is there a safer alternative?
- USTMA requested the California Department of Toxic Substance Control (DTSC) add 6PPD in tires to the 2021-2023 Priority Products Work Plan for the Safer Consumer Products Regulations.
- Earlier this year, DTSC released the draft 2021-2023 Priority Product Work Plan for public comment. USTMA was pleased to see that DTSC included 6PPD in tires on the draft Work Plan. For more information see https://dtsc.ca.gov/scp/priority-product-work-plan/.
- The California Safer Consumer Products Regulations will provide a scientific, regulatory framework to analyze whether alternatives exist that will enable tire manufacturers to meet vehicle safety and consumer product safety requirements.
- Tires are highly engineered and highly regulated to ensure the greatest possible quality, safety, and durability.
- All tires sold in the United States must meet Federal Motor Vehicle Safety Standards set by the National Highway Traffic Safety Administration (NHTSA), which are the most stringent such standards in the world.
- Changes in tire composition require extensive testing to ensure that tires continue to meet NHTSA safety standards.

Green infrastructure mitigates the impact of stormwater and 6PPD-quinone

- A 2016 study by U.S. Fish and Wildlife, found that bioretention filtration of urban stormwater runoff prevents pre-spawn mortality in adult coho salmon and eliminated toxic impacts to coho embryos.[2]

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[1] Tian et al, *Science* 08 Jan 2021

[2] https://www.ezview.wa.gov/Portals/_1962/Documents/SAM/USFWS_D4.2_Final%20Report%20March2016.pdf