Paris, 14th of September 2026

# Information on the subject of particles resulting from tire and road wear

- This issue calls for transparency and scientific rigor.
- For more than twenty years, Michelin has been working to reduce tire wear and to better understand particulate emissions.
- Reducing emissions and advancing scientific research go hand in hand.

Michelin is aware of the investigation aired on France 5, and it wishes to share its analysis and experience, considering the questions raised by this issue.

The subject of particles generated by tire and road wear is important and deserves to be communicated to the public in a clear, thorough, and transparent manner.

It is in this spirit that Michelin agreed to take part in this report and answer the production team's questions.

This issue is not a new one. The tire industry has been working on these challenges for more than twenty years, with research programs underway since 2005. Reducing particles from tire and road wear is now one of the tire industry's key environmental challenges and a priority for research and innovation at Michelin.

It is also important to remember that all tires, of all brands, generate tire-wear particles – in widely varying quantities – when they are driven on the road. These particles result from friction between the tire and the road, a contact that is essential to vehicle grip and, therefore, to road-user safety. They consist of a mixture of materials originating from both the tire and the road.

Improving a tire's composition while maintaining the highest levels of safety represents a major technical challenge. By investing more than €1 billion annually in innovation, Michelin continuously upgrades its materials and processes to reduce the environmental impact of its tires without compromising safety.

In today's world, tires remain essential to the mobility of people and the transportation of goods. It is the responsibility of every tire manufacturer to reduce these emissions by accelerating their research and innovation.

**This issue calls for transparency and scientific rigor**

It is essential to better understand how tire- and road-wear particles behave in the environment, as well as their potential effects on ecosystems and human health. To continue making progress, it is necessary to rely on robust methods, reliable results, and research recognized by the scientific community.

Scientific knowledge is continually advancing, but some questions still require further research.

**For more than twenty years, Michelin has been working to better understand and reduce tire wear**

Because this issue concerns the entire tire industry, Michelin embraces its role as a leader and is fully engaged across the sector:

- Through the Tire Industry Project (TIP), established in 2005, of which Michelin is a founding member. The report published in 2008 and featured in the program marked a key milestone by establishing the state of available knowledge and identifying research priorities;
- In Europe, to support the implementation of ambitious and effective regulations;
- In the United States, through USTMA initiatives focused, since 2021, on 6PPD and the search for alternative solutions as a preventive measure.

Michelin also conducts its own research and development programs:

- The Group continuously invests in materials, rubber compounds, and tire design to reduce wear;
- Michelin reduced its global emissions of wear particles by approximately 100,000 metric tons between 2015 and 2020 and is targeting a further 10% reduction by 2030;
- According to the 2025 ADAC study, Michelin tires emit an average of 27% fewer wear particles than the average of the competing tires tested.

## Reducing emissions and advancing scientific research go hand in hand

Michelin is convinced that combining ambitious regulatory requirements, scientific research, and innovation is the most effective way to better understand wear particles, reduce their impact, and sustainably meet society's mobility needs.

From the outset, the Group has supported regulatory initiatives aimed at reducing wear-particle emissions, including Euro 7 – the world's first regulation establishing requirements for tire-wear emissions and progressively phasing the highest-emitting tires out of the market. Today, Michelin supports the rollout of these requirements for passenger vehicles and is working to ensure that they are extended to commercial vehicles and heavy-duty trucks as quickly as possible, without delaying the implementation timeline.

Substances used in tires are also governed by the European REACH regulation, which provides for a high level of assessment, oversight, and transparency.

Michelin takes scientific research on 6PPD and its derivatives very seriously. To date, no alternative capable of ensuring the same level of safety and performance has been identified. At the same time, the Group continues its research efforts, notably with the French National Centre for Scientific Research (CNRS) and Université Clermont Auvergne through the joint BioDLab laboratory. The objective is to better understand how particles generated by tire wear degrade in the environment and to explore solutions that could, over time, promote their biodegradation and assimilation by the environment.

Michelin will continue working alongside the scientific community, public authorities, and the entire tire industry to accelerate the reduction of tire- and road-wear particles while ensuring the highest level of safety for road users.

***Sources:***

*Air pollution study:*
*Tyre wear in particulate matter – No need to panic! Stein, G. & Wünstel, E. & Travnicek-Pagaimo, W. RFP 1/2013, Volume 8; International conference on rubber and rubber-like material; Kharangpur, India.*

*Measurement of Airborne Concentrations of Tire and Road Wear Particles in Urban and Rural Areas of France, Japan, and the United States, Panko et al, 2013.*

*Evaluation of Tire Wear Contribution to PM2.5 in Urban Environments. Panko et al, 2019.*

*Ambient air – Determination of the mass concentration of tire and road wear particles (TRWP) – Pyrolysis-GC-MS method. ISO, 2017.*

*Observatoire Environnement Terre Univers (OSUG), Lake Annecy: polluted by tire particles? YouTube video, available on: https://www.youtube.com/watch?v=BoyOZYZsNs8 (accessed September 10, 2026).*

**About Michelin:**
Michelin is building a world-leading manufacturer of life-changing composites and experiences. Pioneering engineered materials for more than 130 years, Michelin is uniquely positioned to make decisive contributions to human progress and to a more sustainable world. Drawing on its deep know-how in polymer composites, Michelin is constantly innovating to manufacture high-quality tires and components for critical applications in demanding fields as varied as mobility, construction, aeronautics, low-carbon energies, and healthcare. The care placed in its products and deep customer knowledge inspire Michelin to offer the finest experiences. This spans from providing data- and AI-based connected solutions for professional fleets to recommending outstanding restaurants and hotels curated by the MICHELIN Guide. Headquartered in Clermont-Ferrand, France, Michelin is present in 175 countries and employs 122,600 people. (www.michelin.com).