

## **Highlights related to ECE/TRANS/WP.29/GRPE/2017/3 on the Proposal for a new global technical regulation on Evaporative emission test procedure for the Worldwide harmonized Light vehicles Test Procedure (WLTP EVAP)**

One of the aspects covered within the mandate for WLTP is the evaporative emission test procedure. This document is expressing the view of European Tyre Industry with regard to this procedure, with the aim to clarify and reconfirm the role of tyres.

As indicated within ECE/TRANS/WP.29/GRPE/2017/3, “Evaporative emissions from a vehicle can be defined, in a very generic way, as **Volatile Organic Compounds (VOCs)** emitted by the vehicle itself in different operating conditions but not directly deriving from the combustion process. In petrol vehicles the **most important potential source of evaporative emissions is the loss of fuel through the evaporation and permeation mechanisms from the fuel storing system**. .. VOCs may also be emitted by specific components of the vehicle like tyres, interior trim or by other fluids (e.g. windshield washer fluid). These emissions are usually quite low and do not depend on how the vehicle is used or on the quality of the fuel”.

Clearly the scope of the test is the fuel storing system. Those VOCs emissions deriving from other components not belonging to the vehicle fuel system (and not deriving from the combustion process) shall be considered out of WLTP EVAP scope.

Indeed the currently proposed text is specifying:

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### **“Annex 1 Type 4 test procedures and test conditions**

[...]

5. Test procedure

[...]

5.3.1. Vehicle preparation

The vehicle shall be prepared in accordance to paragraphs 5.1.1. and 5.1.2. of Annex 7 to Regulation No. 83-07. At the request of the manufacturer and with the approval of the responsible authority, **non-fuel background emission sources may be eliminated** or reduced before testing (e.g. baking of tyres or vehicle, draining washer fluid).”

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Despite tyres are insignificantly emitting VOCs, being mainly constituted of natural occurring polymeric substance (rubber), they have the potential to interfere with the VOCs measurements, especially when newly produced. **It is essential that tyres are removed at vehicle preparation stage**, according to the above mentioned paragraph, in order to maximize the test accuracy. Tyre baking procedures, not being standardized, are not conclusive while adding uncertainties to the measurements.

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