

The alert to the following announcement was sent to VASA and TaT (The Automotive Technician) by TaT's US correspondent Julian Hentze who is monitoring the global situation from his base in Georgia

CO2 is on the German agenda and Daimler video fans the flames

Volkswagen head Ferdinand Piech has now ended the silence that had fallen on the automotive industry following the shock announcement by Daimler that it has no intention of adopting the new replacement refrigerant for R134a, HFO-1234yf, because of flammability concerns.

In a post on R744.com, the CO2 cooling and heating industry platform, Piech is reported as saying “The right refrigerant is CO2. It does not burn for sure. Until this comes, we will continue using the proven refrigerant R134a.”

In the meantime, Daimler has posted a video of what it calls its real-life tests on HFO-1234yf, which shows the refrigerant bursting into flames, melting plastic components and releasing highly toxic substances within two seconds of being released on a hot engine.

While Daimler is keeping open all options for the best refrigerant to be used in the future, among them CO2, VW has made clear that the natural refrigerant is the direction to go.

As a reaction to VW’s announcement, Daimler told the press, “We are happy that VW follows us in our evaluation of the risks associated to the new refrigerant”, while also clarifying that “if the VW corporation excludes the use of R1234yf we would welcome this decision. We are currently investigating different options for a different refrigerant, and this includes also the use of CO2.”

The German automotive association VDA meanwhile has started to investigate the issue in a special working group, while the Kraftfahrtbundesamt responsible for type approval in Germany has still not issued an official statement.

The official Daimler video shows tests in which a blue flash fire appears, indicating that the refrigerant HFC-1234yf is burning. Released by a remotely controlled valve in the refrigerant piping it releases highly toxic substances before the fire is extinguished after 12 seconds.

Within this short time period, the flames’ yellow color indicates that the fire has already spread to the plastic parts of the motor compartment, and the front windshield is corroded by the aggressive acid released.

The video of the test, conducted by Daimler on a B 180 class Mercedes under real-life conditions is going viral on the internet.

According to R744.com, the test proves that the refrigerant so far assumed to be mildly flammable is indeed ignited instantly, as compared to the conventional refrigerant R134a also shown in the test.

One of the major arguments – that the flammability concerns for R134a and R1234yf would be comparable and in fact negligible – falls apart, sparking a discussion if the approval for 1234yf now has to be revised, as reported by Autobild.

Daimler insists that this test is replicable at any time. To stress the message, the carmaker repeated the test live in front of other automotive companies and public authorities, in addition to chemical maker Honeywell having a global patent on 1234yf.

The link to the video, published by Auto Bild is below.

Source: [R744.com](http://www.r744.com)

<http://www.r744.com/web/assets/video/1234yf-vs-134a-fire.mp4>.