

Dr. A Ramesh Kumar, Scientist-E, delivered a keynote address at the “International Conference on Automotive Material Compliance & Sustainability” organized by the Society of Indian Automobile Manufacturers (SIAM), Delhi, on 19 February 2026. In his address, Dr. Kumar highlighted Chemicals of Concern (CoCs) in automobile components as a major barrier to achieving circularity in the automotive sector. He noted that chemicals such as brominated flame retardants, per- and poly-fluoroalkyl substances (PFAS), Dechlorane Plus, UV-328, and chlorinated paraffins—listed under the Stockholm Convention on Persistent Organic Pollutants (POPs)—pose challenges for automobile OEMs. These substances may be released into the environment during production, use, and disposal, while informal recycling can generate brominated dioxins and furans, classified as Group I carcinogens.

Dr. Kumar also emphasized that CoCs affect international trade, as components containing such chemicals require labeling and may face global regulatory restrictions. He advised OEMs to use tools such as GADSL, IMDS, and Alternatives Assessment frameworks to identify and manage CoCs/POPs. He concluded by cautioning against regrettable substitutions, particularly halogenated flame retardants, and recommended environmentally benign and sustainable alternatives such as metal hydroxide, phosphorus, and nitrogen-based flame retardants.

